



moulton niguel water district

NOTICE AND CALL OF SPECIAL MEETING OF THE BOARD OF DIRECTORS

MOULTON NIGUEL WATER DISTRICT

26880 Aliso Viejo Pkwy, Suite 150, Aliso Viejo

December 18, 2019

6:00 PM

Approximate Meeting Time: 2 Hours

NOTICE IS HEREBY GIVEN that a Special Meeting of the Board of Directors of the Moulton Niguel Water District (“MNWD”) has been called by the Chairman of the Board of Directors to be held on December 18, 2019, at 6:00 PM, at MNWD’s Administrative Offices located at the address above. The following business will be transacted and is the Agenda for this Special Meeting:

AGENDA

1. CALL MEETING TO ORDER
2. PLEDGE OF ALLEGIANCE
3. PUBLIC COMMENTS

Persons wishing to address the Board of Directors on any item listed on the Agenda should submit a “Request To Be Heard” form to the Recording Secretary before the Presiding Officer announces that agenda item. Your name will be called to speak at that time. (As required by law, public comments during a Special Meeting may address only specific items listed on the agenda, no other matters.)

CONSENT CALENDAR ITEMS (Items on the Consent Calendar have been discussed at the regularly scheduled Administrative and Technical Committee meetings)

Consent items: Unless the General Manager or the Board requests that an item be removed from the Consent Calendar, all items will be acted upon as a whole and by one vote. Requests for discussion of any specific item should be made to the Presiding Officer in conjunction with the discussion of the consent motion.

4. 2017-18 PIPELINE REHABILITATION AND REPLACEMENT – WASTEWATER

It is recommended that the Board of Directors award the construction services contract to Nu-Line Technologies, LLC in the amount of \$325,000; authorize the General Manager or Assistant General Manager to execute the contract; and to approve change orders up to 10% of the contract value.

5. AMENDMENT NO. 4 TO THE PROFESSIONAL SERVICES AGREEMENT FOR POTABLE AND RECYCLED PIPELINE REPLACEMENTS AT I-5 AND OSO CREEK

It is recommended that the Board of Directors approve Amendment No. 4 to the PSA with GHD, Inc. (GHD) in the amount of \$58,163 for a new total not-to-exceed amount of \$566,957; and authorize the General Manager or Assistant General Manager to execute the amendment.

6. AMENDMENT NO. 2 FOR THE REGIONAL LIFT STATION ENHANCEMENTS

It is recommended that the Board of Directors approve Amendment No. 2 to Task Order No. 3 of the As-Needed Engineering Services Agreement with Tetra Tech in the amount of \$63,800 for a new total not-to-exceed amount of \$262,600; authorize the General Manager or Assistant General Manager to execute the amendment; and to approve amendments up to 10% of the total task order value.

7. TURF REMOVAL INCENTIVE FUNDING

It is recommended that the Board of Directors approve a change to the turf removal program to discontinue incentive funding for artificial turf; and authorize the General Manager or Assistant General Manager to implement the appropriate updates to the program documents.

8. WATER UCI INDUSTRY-UNIVERSITY COOPERATIVE RESEARCH CENTER (IUCRC)

It is recommended that the Board of Directors authorize the General Manager or Assistant General Manager to sign the attached contribution agreement with the University of California Irvine (UCI) Foundation supporting the research of Water UCI.

TECHINCAL MATTERS

9. CONSTRUCTION CONTRACT AWARD FOR RECYCLED WATER DISTRIBUTION SYSTEM IMPROVEMENTS

It is recommended that the Board of Directors award the construction services contract to Ferreira Construction in the amount of \$588,130; authorize the General Manager or Assistant General Manager to execute the contract; and to approve change orders up to 10% of the contract value.

10. WATER SUPPLY ASSESSMENT FOR THE LAGUNA NIGUEL TOWN CENTER

It is recommended that the Board of Directors approve the December 2019 WSA for the Laguna Niguel Town Center Project as prepared by Dudek.

ADMINISTRATIVE MATTERS

11. SB 998 IMPLEMENTATION (RESOLUTION 19-__)

It is recommended that the Board of Directors approve the resolution entitled, "Amending Rules and Regulations for Water Service to Revise Provisions Regarding Service Charges and Deposits and to Adopt a Policy on Discontinuation of Residential Water Service."

INFORMATION ITEMS

12. MONTHLY FINANCIAL REPORT

GENERAL MANAGER MATTERS (Brief general updates on District matters and/or brief general updates from staff - Informational purposes only.)

BOARD REPORTS

PRESIDENT'S REPORT

ADJOURNMENT

The Board of Directors' Meeting Room is wheelchair accessible. If you require any special disability related accommodations (i.e., access to an amplified sound system, etc.), please contact the Moulton Niguel Water District Secretary's office at (949) 831-2500 at least forty-eight (48) hours prior to the scheduled meeting. This agenda can be obtained in alternate format upon written request to the Moulton Niguel Water District Secretary at least forty-eight (48) hours prior to the scheduled meeting.

Agenda exhibits and other writings that are disclosable public records distributed to all, or a majority of, the members of the Moulton Niguel Water District Board of Directors in connection with a matter subject to discussion or consideration at an open meeting of the Board of Directors are available for public inspection at the District Office, 26880 Aliso Viejo Parkway, Suite 150, Aliso Viejo, CA ("District Office"). If such writings are distributed to members of the Board less than twenty-four (24) hours prior to the meeting, they will be available in the reception area of the District Office at the same time as they are distributed except that, if such writings are distributed immediately prior to, or during the meeting, they will be available in the Board meeting room and on the District website at www.mnwd.com.

The foregoing Notice was personally delivered, faxed, mailed or e-mailed to each member of the MNWD Board of Directors at least twenty-four (24) hours prior to the scheduled time of the Special Meeting so noticed above; and posted twenty-four (24) hours prior to the time of the Special Meeting at the usual agenda posting location of MNWD (bulletin board outside main office entrance).



moulton niguel water district

STAFF REPORT

TO: Board of Directors **MEETING DATE:** December 18, 2019

FROM: Rod Woods, Director of Engineering
Sheldon Yu, Senior Engineer

SUBJECT: 2017-18 Pipeline Rehabilitation and Replacement – Wastewater

SUMMARY:

Issue: Board action is required for the Notice Inviting Sealed Bids for the 2017-18 Pipeline Rehabilitation and Replacement – Wastewater, Project No. 2017.004.

Recommendation: It is recommended that the Board of Directors award the construction services contract to Nu-Line Technologies, LLC in the amount of \$325,000; authorize the General Manager or Assistant General Manager to execute the contract; and to approve change orders up to 10% of the contract value.

Fiscal Impact: Project No. 2017.004 is budgeted in Fund 7, Rehabilitation and Replacement, with a current project budget of \$350,000. The proposed project budget is \$453,896. Sufficient funds are available in Fund 7; the overall Fiscal Year 2019-20 CIP budget for Fund 7 is \$43,624,388.

Reviewed by Committee: Yes, recommended for approval at the Technical Committee Meeting on December 2, 2019.

Reviewed by Legal: Yes

BACKGROUND:

The District maintains more than 500 miles of gravity sewers ranging in diameter from 6-inches to 48-inches. All gravity sewers contain manholes to facilitate the operation and maintenance of the sewers. Consistent with the Sewer System Management Plan (SSMP), the District’s collections crew performs regular sewer cleaning and video inspection.

The District also has an assessment program to systematically evaluate its sewers, which includes reviewing the District’s Geographic Information System (GIS) data

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2017-18 Pipeline Rehabilitation and Replacement – Wastewater

December 18, 2019

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along with the above-mentioned inspection videos recorded by District's collections crew during routine maintenance. Staff utilizes this information on an annual basis to make informed decisions about whether to repair, rehabilitate, or replace identified sewer reaches. The District includes any identified sewer line rehabilitation and replacement projects in its 10-year Capital Improvement Program (CIP).

For this project, it was recommended that improvements be made at identified locations utilizing the Cured-In-Place Pipe (CIPP) rehabilitation method. CIPP is a trenchless method that is typically less expensive and results in less impact to the public than traditional open cut replacement of the pipelines. Overall, this project consists of: cleaning, calcium & root removal, temporary sewer bypass, video inspection, traffic control, and installing approximately 3,600 linear feet of CIPP liner.

The identified reaches are generally located in the areas of Canterbury Place, Chester Drive, Fairgreens easement, La Mancha easement, Luna Bonita Drive, Moro Azul, Paseo del Campo, Rocinante easement, Saddleback Reservoir, and Valencia Lift Station, and were originally constructed between the mid-1960s and late-1970s. These ten sewer reaches are located within the Cities of Laguna Hills, Laguna Niguel and Mission Viejo. Most of the sewers are 8-inch Vitrified Clay Pipe (VCP); except for the 18-inch VCP near Valencia Lift Station and the 12-inch corrugated metal drain pipes at Saddleback Reservoir.

Construction documents for the project were prepared by AKM Consulting Engineers utilizing the on-call engineering services agreement. A categorical exemption was prepared in accordance with State CEQA Guidelines and a Notice of Exemption was filed with Orange County on October 25, 2018.

DISCUSSION:

A request for bids was issued to four qualified contractors. The District received three sealed bids for the subject contract on November 20, 2019. The table below summarizes the bids received:

Firm	Bid
Nu-Line Technologies, LLC	\$325,000
Southwest Pipeline & Trenchless Corp.	\$534,554
Sancon, Inc.	\$797,685
Engineer's Estimate	\$318,750

Staff has determined that the lowest responsible and responsive bidder was Nu-Line Technologies, LLC. Staff has completed its review of the contract documents and has determined that they are in order. Nu-Line Technologies, LLC provides quality work and is well-qualified to perform this type of work.

As such, staff is recommending that the Board of Directors award the construction services contract to Nu-Line Technologies, LLC in the amount of \$325,000, including a contingency of 10% of the contract value.

SUMMARY OF PROJECT BUDGET:

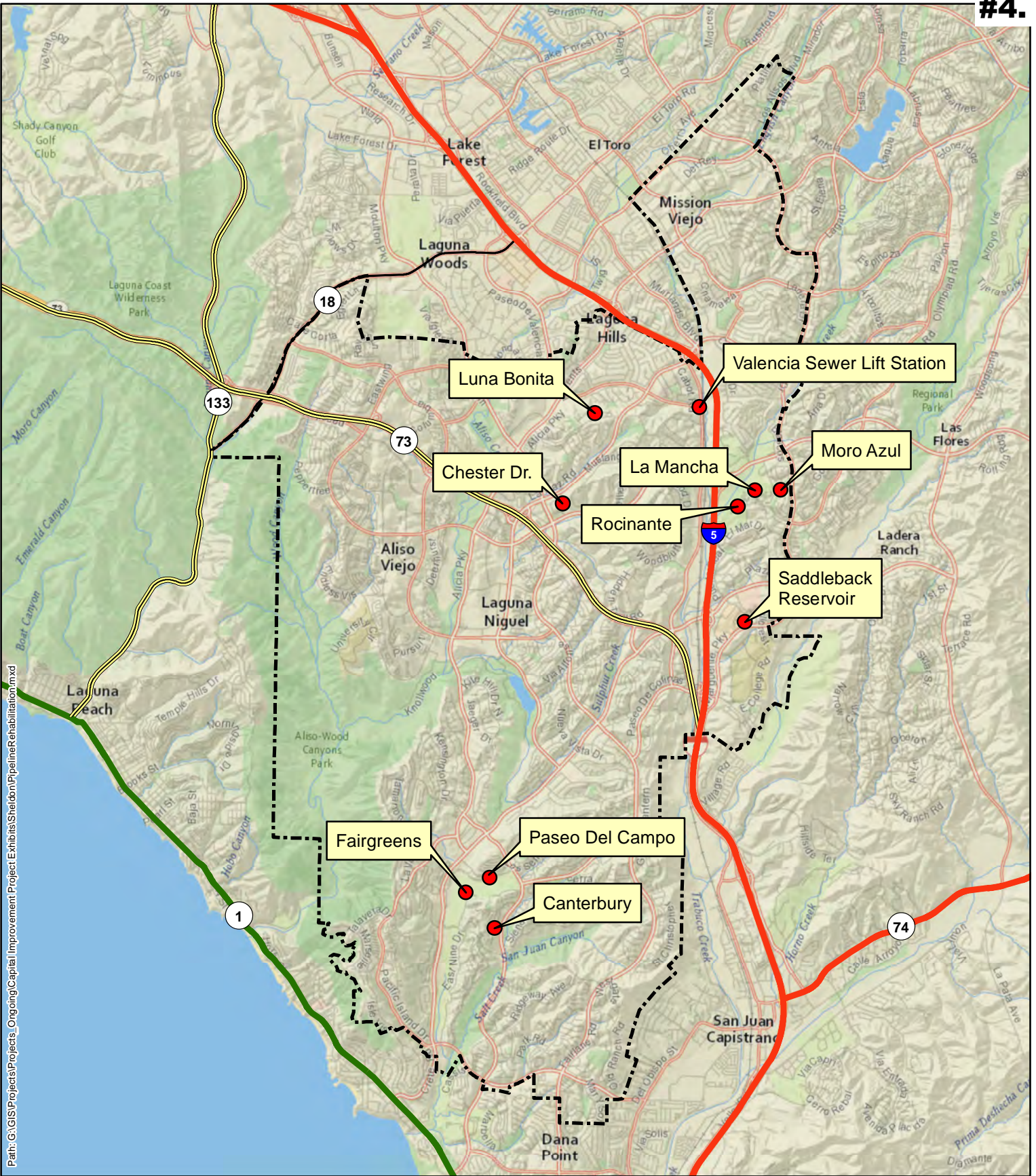
	Project Budget*	Proposed / Approved Contract	Proposed / Authorized Contingency	Total Proposed / Authorized Amount
Project Items				
Engineering	\$76,396	\$76,396	\$0	\$76,396
Construction Contract	\$253,604	\$325,000	\$32,500	\$357,500
Legal, Permits, Inspection	\$20,000	\$20,000	\$0	\$20,000
Totals	\$350,000	\$421,396	\$32,500	\$453,896

*\$75,959.00 has been expended to date.

 Currently Proposed Amount

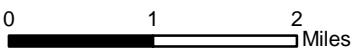
Attachments:

1. Exhibit A – Location Map
2. Exhibit B – Vendor Contact List



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● Rehabilitation Locations

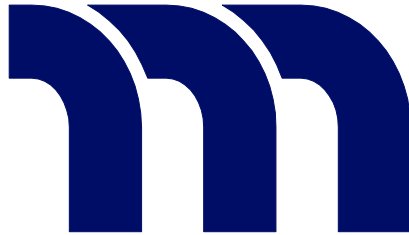


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**Exhibit "A" Location Map
2017-18 Pipeline Rehabilitation
and Replacement-Wastewater
Contract No. 2017.004**

Exhibit "B" Vendor Contact List

Company Name	Company Address	Contact Person	Telephone #	E-Mail
Nu-Line Technologies, LLC	102 2nd Street, Suite B Encinitas, CA 92024	Frank Durazo	(760) 443-7452	fdurazo@nulinetech.net
Sancon, Inc.	5841 Engineer Dr. Huntington Beach, CA 92649	Mark Weber	(714) 891-2323 x 105	mark@sancon.com
Southwest Pipeline & Trenchless Corp.	22118 S. Vermont Ave. Torrance, CA 90502	Vic Ciceran	(310) 329-8717 ext. 102	vic@swpipeline.com



moulton niguel water district

STAFF REPORT

TO: Board of Directors **MEETING DATE:** December 18, 2019

FROM: Rod Woods, Director of Engineering
Todd Dmytryshyn, Engineering Manager

SUBJECT: Amendment No. 4 to the Professional Services Agreement for Potable and Recycled Pipeline Replacements at I-5 and Oso Creek

SUMMARY:

Issue: Board action is required to execute an amendment to the Professional Services Agreement (PSA) for engineering services for the Potable and Recycled Pipeline Replacements at I-5 and Oso Creek, Project Nos. 2017.009 and 2017.014.

Recommendation: It is recommended that the Board of Directors approve Amendment No. 4 to the PSA with GHD, Inc. (GHD) in the amount of \$58,163 for a new total not-to-exceed amount of \$566,957; and authorize the General Manager or Assistant General Manager to execute the amendment.

Fiscal Impact: Project Nos. 2017.009 and 2017.014 are budgeted in Fund 7, Rehabilitation and Replacement with a current combined project budget of \$8,802,736. The proposed project budget is \$8,860,899. Sufficient funds are available in Fund 7; the overall Fiscal Year 2019-20 CIP budget for Fund 7 is \$43,624,388.

Reviewed by Committee: Yes, recommended for approval at the Technical Committee Meeting on December 2, 2019.

Reviewed by Legal: Yes

BACKGROUND:

A potable water pipeline and two recycled water pipelines are located below the Interstate 5 (I-5) freeway, south of Oso Parkway, from the District’s Camino Capistrano yard on the west side to the Mission Viejo Country Club (MVCC) on the east side in the City of Mission Viejo. The existing 14-inch potable water pipeline was installed in 1968 and is due for

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Amendment No. 4 to the Professional Services Agreement for Potable and Recycled Pipeline Replacements at I-5 and Oso Creek

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replacement. The existing 8-inch and 12-inch recycled water pipelines convey recycled water produced at Plant 3A to and from seasonal storage in Upper Oso Reservoir. The recycled water pipelines are also due for replacement and were identified in the District's Recycled Water Master Plan and Recycled Water Optimization Study.

In September 2017, the Board approved the PSA for engineering services with GHD in the amount of \$472,033. The Board also approved a 10% contingency in the amount of \$47,203. Three previous amendments have been executed for this PSA:

- Amendment No. 1 was executed in June 2018. The scope was modified to include additional biological surveys required in the work area. The agreement amount was increased by \$18,695;
- Amendment No. 2 was executed in July 2018. The scope was modified to include a Geotechnical Baseline Report (GBR). The GBR was presented as an optional task in GHD's original PSA and therefore required an amendment to authorize the additional funds. The agreement amount was increased by \$18,066;
- Amendment No. 3 was executed in May 2019 to extend the term of the PSA to match the latest project schedule. Amendment No. 3 did not modify the original scope of services or compensation.

In April 2019, the Board awarded the construction contract to Vadnais Corporation (Vadnais). Construction started in August 2019 and is scheduled to be completed in June 2020. Work completed to date has been outside the Caltrans Right-of-Way.

DISCUSSION:

A permit is required from Caltrans for the microtunneling work that will occur within their Right-of-Way. The District previously secured an approved owner's permit for this project. Vadnais applied for their required permit in July 2019, which is currently in the final stages of review by Caltrans. Along with continuous and ongoing coordination with Caltrans permit staff, District Staff, Vadnais, and GHD recently met with Caltrans representatives to confirm and finalize their geotechnical monitoring requirements for this project. Caltrans is requiring extensive settlement monitoring, significantly exceeding what was originally envisioned for this project. Additionally, the permit process overall requires more support from GHD than was originally anticipated.

District Staff has and will continue to utilize GHD to prepare design revisions, review and prepare responses to additional RFIs and submittals, review additional permit supporting documentation, and participate in coordination meetings and conference calls related to these additional Caltrans settlement monitoring requirements and a prolonged permit process. This proposed Amendment No. 4 to the PSA with GHD is required to authorize funds for these additional services. Staff performed a thorough review of GHD's proposal and determined that the level of effort is appropriate. This amendment, as well as the original PSA and previous amendments, will be performed on a time and materials not to exceed basis.

Amendment No. 4 to the Professional Services Agreement for Potable and Recycled Pipeline Replacements at I-5 and Oso Creek
December 18, 2019
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SUMMARY OF PROJECT BUDGET:

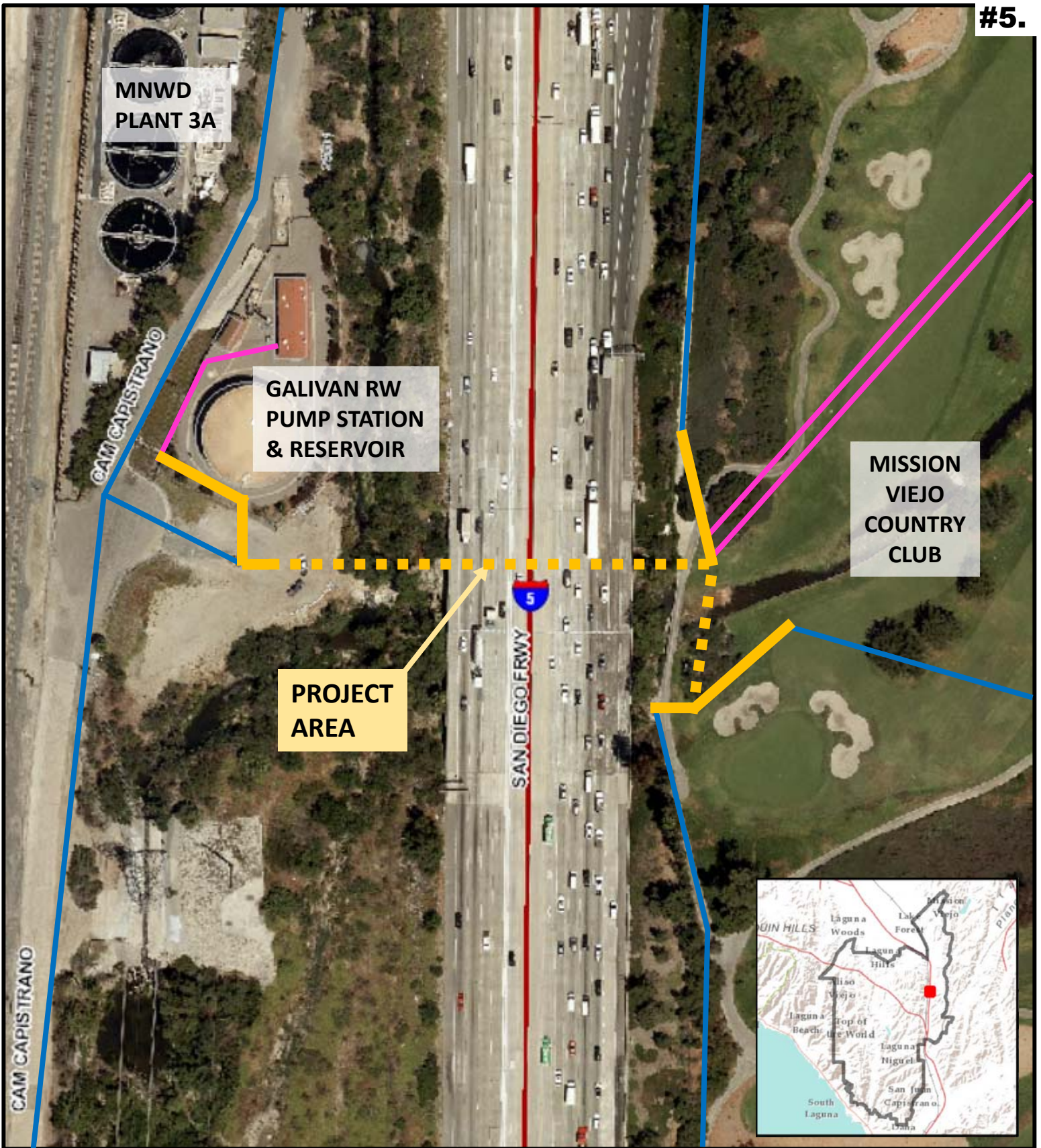
	Project Budget*	Proposed / Approved Contract	Proposed / Authorized Contingency	Total Proposed / Authorized Amount
Project Items				
Engineering	\$519,236	\$472,033	\$47,203	\$519,236
Additional Engineering		\$58,163		\$58,163
Construction	\$7,689,000	\$6,990,000	\$699,000	\$7,689,000
Construction Management, Inspection, Geotechnical, Environmental Monitoring	\$544,500	\$495,000	\$49,500	\$544,500
Legal, Permits, District Labor	\$50,000	\$50,000	\$0	\$50,000
Totals	\$8,802,736	\$8,065,196	\$795,703	\$8,860,899

*\$2,208,205 has been expended to date

 Currently Proposed Amount

Attachments:

1. Exhibit A – Location Map
2. Exhibit B – Original PSA (Fully Executed)
3. Exhibit C – Amendment No. 1 to PSA (Fully Executed)
4. Exhibit D – Amendment No. 2 to PSA (Fully Executed)
5. Exhibit E – Amendment No. 3 to PSA (Fully Executed)
6. Exhibit F – Amendment No. 4 to PSA (Proposed)



Legend

- Proposed Microtunnel
- Proposed Pipeline
- Existing Potable Water Pipeline
- Existing Recycled Water Pipeline



Exhibit "A" Location Map
Pipeline Replacements at I-5 and Oso Creek
Contract Nos. 2017.009 and 2017.014

EXHIBIT "B"



moulton niguel water district

**PROFESSIONAL SERVICES AGREEMENT BETWEEN
MOULTON NIGUEL WATER DISTRICT AND GHD, Inc.**

**MNWD PROJECT: Potable, Recycled, and Sewer Pipeline Replacements at I-5 and Oso
Creek**

CONTRACT NOS. 2017.009, 2017.014, 2017.018

This Agreement (the "Agreement") is made and entered into this 13th day of October, 2017 by and between the MOULTON NIGUEL WATER DISTRICT ("MNWD") and GHD, Inc., a CORPORATION with its principal place of business at 175 Technology Drive, Suite 200, Irvine, CA 92618 ("Consultant"). MNWD and Consultant are sometimes individually referred to as "Party" and collectively as "Parties" in this Agreement.

SECTION I – PURPOSE

Consultant shall provide certain professional services required by MNWD on the terms and conditions set forth in this Agreement. Consultant represents that it has the qualifications, experience, licenses, and facilities necessary to properly perform engineering consultant services in a competent and professional manner.

SECTION II – TERM.

The term of this Agreement shall be from the date of execution of this Agreement to April 30, 2019, unless earlier terminated as provided herein.

SECTION III – SCOPE OF SERVICES

Section 3.1. Scope of Services. The scope of services to be provided by Consultant is set forth on Exhibit "A" attached hereto and by this reference incorporated herein ("Services"). Consultant warrants that it will perform the Services as set forth herein in a competent, professional and satisfactory manner. All Services shall be subject to, and performed in accordance with, this Agreement, the exhibits attached hereto and incorporated herein by reference, and all applicable local, state and federal laws, rules, and regulations.

Section 3.2. Schedule of Services. Consultant shall complete the Services within the term of this Agreement and shall meet any other established schedules and deadlines, including any schedule of services set forth in Exhibit "A."

Section 3.3. Permits, Licenses, Fees and Other Charges. Consultant shall, in accordance with applicable laws and ordinances, obtain at his/her/its expense all permits and licenses necessary to accomplish the Services. Failure to maintain a required license or permit may result in immediate termination of this Agreement.

SECTION IV – COMPENSATION

Section 4.1. Payment for Services Rendered. Consultant shall receive compensation, including authorized reimbursements, for all Services rendered under this Agreement at the rates set forth in Exhibit "B" attached hereto and incorporated herein by reference. The total compensation shall not exceed four hundred seventy-two thousand thirty-three dollars (\$472,033) without written approval by MNWD. Extra Work may be authorized, as described below, and if authorized, will be compensated at the rates and manner set forth in this Agreement.

Section 4.2. Invoices. Consultant shall submit to MNWD a monthly itemized statement which indicates work completed and hours of Services rendered by Consultant. The statement shall describe the Services and supplies provided since the initial commencement date, or since the start of the subsequent billing periods, as appropriate, through the date of the statement. MNWD shall, within 45 days of receiving such statement, review the statement and pay all approved charges thereon.

- A. Payment shall not constitute acceptance of any work completed by Consultant.
- B. The making of final payment shall not constitute a waiver of any claims by MNWD for any reason whatsoever.

Section 4.3. Reimbursement for Expenses. Consultant shall not be reimbursed for any expenses unless prior authorized in writing by MNWD.

Section 4.4. Extra Work. At any time during the term of this Agreement, MNWD may request that Consultant perform Extra Work. As used herein, "Extra Work" means any work which is determined by MNWD to be necessary for the proper completion of the Project, but which the parties did not reasonably anticipate would be necessary at the execution of this Agreement. Consultant shall not perform, nor be compensated for, Extra Work without written authorization by MNWD.

SECTION V – REPRESENTATIVES OF THE PARTIES.

Section 5.1. MNWD's Representative. MNWD hereby designates its Director of Engineering, or his or her designee, to act as its representative for the performance of this Agreement ("MNWD's Representative"). Consultant shall not accept direction or orders from any person other than MNWD's Representative or his or her designee.

Section 5.2. Consultant's Representative. Consultant hereby designates Ulysses Fandino, Project Manager, or his or her designee, to act as its representative for the performance of this Agreement ("Consultant's Representative"). Consultant's Representative shall have full authority to represent and act on behalf of the Consultant for all purposes under this Agreement. The Consultant's Representative shall supervise and direct the Services, using his best skill and attention, and shall be responsible for all means, methods, techniques, sequences, and procedures and for the satisfactory coordination of all portions of the Services under this Agreement.

SECTION VI – RESPONSIBILITIES OF CONSULTANT

Section 6.1. Control and Payment of Subordinates; Independent Contractor. The Services shall be performed by Consultant or under its supervision. Consultant will determine the means, methods and details of performing the Services subject to the requirements of this Agreement. MNWD retains Consultant on an independent contractor basis and not as an employee. Consultant retains the right to perform similar or different services for others during the term of this Agreement. Any additional personnel performing the Services under this Agreement on behalf of Consultant shall also not be employees of MNWD and shall at all times be under Consultant's exclusive direction and control. Consultant shall pay all wages, salaries, and other amounts due such personnel in connection with their performance of Services under this Agreement and as required by law. Consultant shall be responsible for all reports and obligations respecting such additional personnel, including, but not limited to: social security taxes, income tax withholding, unemployment insurance, disability insurance, and workers' compensation insurance.

Section 6.2. Standard of Care; Performance of Employees. Consultant shall perform all Services under this Agreement in a skillful and competent manner, consistent with the standards generally recognized as being employed by professionals in the same discipline in the State of California. Consultant represents and maintains that it is skilled in the professional calling necessary to perform the Services. Consultant warrants that all employees and subconsultants shall have sufficient skill and experience to perform the Services assigned to them. Finally, Consultant represents that it, its employees and subconsultants have all licenses, permits, qualifications and approvals of whatever nature that are legally required to perform the Services, and that such licenses and approvals shall be maintained throughout the term of this Agreement. As provided for in the indemnification provisions of this Agreement, Consultant shall perform, at its own cost and expense and without reimbursement from MNWD, any services necessary to correct errors or omissions which are caused by the Consultant's failure to comply with the standard of care provided for herein.

Section 6.3. Conformance to Applicable Requirements. All work prepared by Consultant shall be subject to the approval of MNWD.

Section 6.4. Substitution of Key Personnel. Consultant has represented to MNWD that certain key personnel will perform and coordinate the Services under this Agreement. The key personnel for performance of this Agreement are as follows: Greg Watanabe and Ulysses Fandino. Should one or more of such personnel become unavailable, Consultant may substitute other personnel of at least equal competence upon written approval of MNWD. In the event that MNWD and Consultant cannot agree as to the substitution of key personnel, MNWD shall be entitled to terminate this Agreement for cause. Furthermore, any personnel who fail or refuse to perform the Services in a manner acceptable to MNWD, or who are determined by MNWD to be uncooperative, incompetent, a threat to the adequate or timely completion of the Services or a threat to the safety of persons or property, shall be promptly removed from performing Services by the Consultant at the request of MNWD.

Section 6.5. Coordination of Services. Consultant agrees to work closely with MNWD staff in the performance of Services and shall be available to MNWD's staff, consultants and other staff at all reasonable times.

Section 6.6. Laws and Regulations. Consultant shall keep itself fully informed of and in compliance with all local, state and federal laws, rules and regulations in any manner affecting the performance of the Project or the Services, including all Cal/OSHA requirements, and shall give all notices required by law. Consultant shall be liable for all violations of such laws and regulations in connection with Services. If the Consultant performs any work knowing it to be contrary to such laws, rules and regulations, Consultant shall be solely responsible for all costs arising therefrom. Consultant shall defend, indemnify and hold MNWD, its officials, directors, officers, employees, and agents free and harmless, pursuant to the indemnification provisions of this Agreement, from any claim or liability arising out of any failure or alleged failure to comply with such laws, rules or regulations.

SECTION VII – LABOR CODE PROVISIONS

Section 7.1. Prevailing Wages. Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., (“Prevailing Wage Laws”), which require the payment of prevailing wage rates and the performance of other requirements on “public works” and “maintenance” projects. If the Services are being performed as part of an applicable “public works” or “maintenance” project, as defined by the Prevailing Wage Laws, and if the total compensation is \$1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. MNWD shall provide Consultant with a copy of the prevailing rates of per diem wages in effect at the commencement of this Agreement. Consultant shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request, and shall post copies at the Consultant’s principal place of business and at the project site. It is the intent of the parties to effectuate the requirements of sections 1771, 1774, 1775, 1776, 1777.5, 1813, and 1815 of the Labor Code within this Agreement, and Consultant shall therefore comply with such Labor Code sections to the fullest extent required by law. Consultant shall defend, indemnify and hold MNWD, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

Section 7.2. Registration and Labor Compliance. If the services are being performed as part of an applicable “public works” or “maintenance” project, then, in addition to the foregoing, pursuant to Labor Code sections 1725.5 and 1771.1, the Consultant and all subconsultants must be registered with the Department of Industrial Relations (“DIR”). Consultant shall maintain registration for the duration of the project and require the same of any subconsultants. This project may also be subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be Consultant’s sole responsibility to comply with all applicable registration and labor compliance requirements, including the submission of payroll records directly to the DIR.

Section 7.3. Labor Certification. By its signature hereunder, Consultant certifies that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for Worker’s Compensation or to undertake self-insurance in accordance with the provisions of that Code, and agrees to comply with such provisions before commencing the performance of the Services.

SECTION VIII – INDEMNIFICATION.

To the fullest extent permitted by law, Consultant shall immediately indemnify, defend, and hold

MNWD, its directors, officials, officers, employees, volunteers and agents free and harmless from any and all claims, demands, causes of action, costs, expenses, liability, loss, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, in any manner arising out of, pertaining to, or incident to any alleged acts, errors or omissions of Consultant, its officials, officers, employees, subcontractors, consultants or agents in connection with the performance of the Consultant's Services or this Agreement, including without limitation the payment of all consequential damages, expert witness fees and attorneys' fees and other related costs and expenses. Consultant shall pay and satisfy any judgment, award or decree that may be rendered against MNWD or its directors, officials, officers, employees, volunteers and agents as part of any such claim, suit, action or other proceeding. Consultant shall also reimburse MNWD for the cost of any settlement paid by MNWD or its directors, officials, officers, employees, agents or volunteers as part of any such claim, suit, action or other proceeding. Such reimbursement shall include payment for MNWD's attorneys' fees and costs, including expert witness fees. Consultant shall reimburse MNWD and its directors, officials, officers, employees, agents, and/or volunteers, for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided. Consultant's obligation to indemnify shall survive expiration or termination of this Agreement, and shall not be restricted to insurance proceeds, if any, received by MNWD, its directors, officials, officers, employees, agents, or volunteers. Notwithstanding the foregoing, to the extent Consultant's Services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

SECTION IX – INSURANCE.

Section 9.1. Time for Compliance. Consultant shall not commence Work under this Agreement until it has provided evidence satisfactory to MNWD that it has secured all insurance required under this section. In addition, Consultant shall not allow any subconsultant to commence work on any subcontract until it has provided evidence satisfactory to MNWD that the subconsultant has secured all insurance required under this section. Failure to provide and maintain all required insurance shall be grounds for MNWD to terminate this Agreement for cause.

Section 9.2. Minimum Requirements. Consultant shall, at its expense, procure and maintain for the duration of the Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Agreement by the Consultant, its agents, representatives, employees or subconsultants. Consultant shall also require all of its subconsultants to procure and maintain the same insurance for the duration of the Agreement. Such insurance shall meet at least the following minimum levels of coverage:

A. Commercial General Liability. Coverage for commercial general liability insurance shall be at least as broad as Insurance Services Office (ISO) Commercial General Liability Coverage (Occurrence Form CG 0001). Consultant shall maintain limits no less than \$1,000,000 per occurrence, or the full per occurrence limits of the policies available, whichever is greater, for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with general aggregate limit or product-completed operations aggregate limit is used, including but not limited to form CG 2503, either the general aggregate limit shall apply separately to this Agreement/location or the general aggregate limit shall be twice the required occurrence limit. The general liability policy shall include or be endorsed (amended) to state that: (1) MNWD, its directors, officials, officers, employees, agents, and volunteers shall be covered as additional

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insured with respect to the Work or operations performed by or on behalf of the Consultant, including materials, parts or equipment furnished in connection with such work using as broad a form as CG 20 10 11 85 or the latest versions of both CG 20 10 and CG 20 37; and (2) the insurance coverage shall be primary insurance as respects MNWD, its directors, officials, officers, employees, agents, and volunteers using as broad a form as CG 20 01 04 13, or if excess, shall stand in an unbroken chain of coverage excess of the Consultant's scheduled underlying coverage. Any insurance or self-insurance maintained by MNWD, its directors, officials, officers, employees, agents, and volunteers shall be excess of the Consultant's insurance and shall not be called upon to contribute with it in any way.

B. Automobile Liability. Coverage shall be at least as broad as the latest version of the Insurance Services Office Business Auto Coverage form number CA 0001, code 1 (any auto). Consultant shall maintain limits no less than \$1,000,000 per accident for bodily injury and property damage. The automobile liability policy shall include or be endorsed (amended) to state that: (1) MNWD, its directors, officials, officers, employees, agents, and volunteers shall be covered as additional insureds with respect to the ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired or borrowed by the Consultant or for which the Consultant is responsible; and (2) the insurance coverage shall be primary insurance as respects MNWD, its directors, officials, officers, employees, agents, and volunteers, or if excess, shall stand in an unbroken chain of coverage excess of the Consultant's scheduled underlying coverage. Any insurance or self-insurance maintained by MNWD, its directors, officials, officers, employees, agents, and volunteers shall be excess of the Consultant's insurance and shall not be called upon to contribute with it in any way. The automobile liability policy shall cover all owned, non-owned, and hired automobiles.

C. Workers' Compensation and Employer's Liability Insurance. Consultant shall maintain Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance in an amount no less than \$1,000,000 per accident for bodily injury or disease. The insurer shall agree to waive all rights of subrogation against MNWD, its directors, officials, officers, employees, agents, and volunteers for losses paid under the terms of the insurance policy which arise from work performed by the Consultant.

D. Professional Liability. Consultant shall procure and maintain, and require its subconsultants to procure and maintain, for a period of five (5) years following completion of the Project, errors and omissions liability insurance appropriate to their profession covering Consultant's wrongful acts, negligent actions, errors or omissions. The retroactive date (if any) is to be no later than the effective date of this agreement.. Consultant shall purchase a one-year extended reporting period: i) if the retroactive date is advanced past the effective date of this Agreement; ii) if the policy is canceled or not renewed; or iii) if the policy is replaced by another claims-made policy with a retroactive date subsequent to the effective date of this Agreement. Such insurance shall be in an amount not less than \$2,000,000 per claim.

E. Excess Liability (if necessary). The limits of Insurance required in this Agreement may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess coverage shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of MNWD

(if agreed to in a written contract or agreement) before MNWD's own primary or self-Insurance shall be called upon to protect it as a named insured. The policy shall be endorsed to state that MNWD, its directors, officials, officers, employees, agents, and volunteers shall be covered as additional insured at least as broad a form as CG 20 10 11 85 or the latest versions of both CG 20 10 and CG 20 37. The coverage shall contain no special limitations on the scope of protection afforded to MNWD, its directors, officials, officers, employees, agents, and volunteers.

Section 9.3. All Coverages. The Consultant is required by this Agreement to state that: (i) coverage shall not be suspended, voided, reduced or canceled except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to MNWD; If any of the required coverages expire or cancel during the term of this agreement, the Consultant shall deliver the renewal certificate(s) including the general liability additional insured endorsement to MNWD at least ten (10) days prior to the cancellation or expiration date. and (ii) any failure to comply with reporting or other provisions of the policies, including breaches of warranties, shall not affect coverage provided to MNWD, its directors, officials, officers, employees, agents, and volunteers.

Section 9.4. Separation of Insureds; No Special Limitations. All insurance required by this Section shall contain standard separation of insureds provisions. In addition, such insurance shall not contain any special limitations on the scope of protection afforded to MNWD, its directors, officials, officers, employees, agents, and volunteers.

Section 9.5. Deductibles and Self-Insurance Retentions. Any deductibles or self-insured retentions must be declared to and approved by MNWD. Consultant shall guarantee that, at the option of MNWD, either: (i) the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects MNWD, its directors, officials, officers, employees, agents, and volunteers; and insurer shall provide or be endorsed to provide that the deductibles or SIR may be satisfied by either the named or additional insureds, co-insurers, and/or insureds other than the First Named Insured or (ii) the Consultant shall procure a bond guaranteeing payment of losses and related investigation costs, claims, and administrative and defense expenses.

Section 9.6. Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating no less than A-:VII or equivalent, or as otherwise approved by MNWD.

Section 9.7. Verification of Coverage. Consultant shall furnish MNWD with original certificates of insurance and endorsements effecting coverage required by this Agreement on forms satisfactory to MNWD. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf, and shall be on forms provided by MNWD if requested. All certificates and endorsements must be received and approved by MNWD before work commences. MNWD reserves the right to require complete, certified copies of all required insurance policies, at any time. In the event that the Consultant employs other consultants (sub-consultants) as part of the services covered by this agreement, it shall be the Consultant's responsibility to require and confirm that each sub-consultant meets the minimum insurance requirements specified above.

Section 9.8. Reporting of Claims. Consultant shall report to MNWD, in addition to Consultant's insurer, any and all insurance claims submitted by Consultant in connection with the Services under this Agreement.

SECTION X – TERMINATION

Section 10.1. Grounds for Termination. MNWD may, by written notice to Consultant, terminate the whole or any part of this Agreement at any time and without cause by giving written notice to Consultant of such termination, and specifying the effective date thereof, at least seven (7) days before the effective date of such termination. Upon termination, Consultant shall be compensated only for those services which have been adequately rendered to MNWD, and Consultant shall be entitled to no further compensation. Consultant may not terminate this Agreement except for cause.

Section 10.2. Effect of Termination. If this Agreement is terminated as provided herein, MNWD may require Consultant to provide all finished or unfinished Documents and Data and other information of any kind prepared by Consultant in connection with the performance of Services under this Agreement. Consultant shall be required to provide such document and other information within fifteen (15) days of the request.

Section 10.3. Additional Services. In the event this Agreement is terminated in whole or in part as provided herein, MNWD may procure, upon such terms and in such manner as it may determine appropriate, services similar to those terminated.

SECTION XI – OWNERSHIP OF MATERIALS AND CONFIDENTIALITY.

Section 11.1. Documents & Data; Licensing of Intellectual Property. This Agreement creates a non-exclusive and perpetual license for MNWD to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). All Documents & Data shall be and remain the property of MNWD, and shall not be used in whole or in substantial part by Consultant on other projects without MNWD's express written permission. Within thirty (30) days following the completion, suspension, abandonment or termination of this Agreement, Consultant shall provide to MNWD reproducible copies of all Documents & Data, in a form and amount required by MNWD. MNWD reserves the right to select the method of document reproduction and to establish where the reproduction will be accomplished. The reproduction expense shall be borne by MNWD at the actual cost of duplication. In the event of a dispute regarding the amount of compensation to which the Consultant is entitled under the termination provisions of this Agreement, Consultant shall provide all Documents & Data to MNWD upon payment of the undisputed amount. Consultant shall have no right to retain or fail to provide to MNWD any such documents pending resolution of the dispute. In addition, Consultant shall retain copies of all Documents & Data on file for a minimum of fifteen (15) years following completion of the Project, and shall make copies available to MNWD upon the payment of actual reasonable duplication costs. Before destroying the Documents & Data following this retention period, Consultant shall make a reasonable effort to notify MNWD and provide MNWD with the opportunity to obtain the documents.

Section 11.2. Subconsultants. Consultant shall require all subconsultants to agree in writing that MNWD is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no

such representation and warranty in regard to Documents & Data which were prepared by design professionals other than Consultant or its subconsultants, or those provided to Consultant by MNWD.

Section 11.3. Right to Use. MNWD shall not be limited in any way in its use or reuse of the Documents and Data or any part of them at any time for purposes of this Project or another project, provided that any such use not within the purposes intended by this Agreement or on a project other than this Project without employing the services of Consultant shall be at MNWD's sole risk. If MNWD uses or reuses the Documents & Data on any project other than this Project, it shall remove the Consultant's seal from the Documents & Data and indemnify and hold harmless Consultant and its officers, directors, agents and employees from claims arising out of the negligent use or re-use of the Documents & Data on such other project. Consultant shall be responsible and liable for its Documents & Data, pursuant to the terms of this Agreement, only with respect to the condition of the Documents & Data at the time they are provided to MNWD upon completion, suspension, abandonment or termination. Consultant shall not be responsible or liable for any revisions to the Documents & Data made by any party other than Consultant, a party for whom the Consultant is legally responsible or liable, or anyone approved by the Consultant.

Section 11.4. Indemnification. Consultant shall defend, indemnify and hold MNWD, its directors, officials, officers, employees, volunteers and agents free and harmless, pursuant to the indemnification provisions of this Agreement, for any alleged infringement of any patent, copyright, trade secret, trade name, trademark, or any other proprietary right of any person or entity in consequence of the use on the Project by MNWD of the Documents & Data, including any method, process, product, or concept specified or depicted.

Section 11.5. Confidentiality. All Documents & Data, either created by or provided to Consultant in connection with the performance of this Agreement, shall be held confidential by Consultant. All Documents & Data shall not, without the prior written consent of MNWD, be used or reproduced by Consultant for any purposes other than the performance of the Services. Consultant shall not disclose, cause or facilitate the disclosure of the Documents & Data to any person or entity not connected with the performance of the Services or the Project. Nothing furnished to Consultant that is otherwise known to Consultant or is generally known, or has become known, to the related industry shall be deemed confidential. Consultant shall not use MNWD's name or insignia, photographs of the Project, or any publicity pertaining to the Services or the Project in any magazine, trade paper, newspaper, television or radio production or other similar medium without the prior written consent of MNWD.

SECTION XII – ACCOUNTING, INSPECTION AND AUDIT

Section 12.1. Records. Consultant shall keep and shall preserve for four (4) years after final completion of the services, accurate and detailed records of all ledgers, books of account, invoices, vouchers, cancelled checks, and other documents or records evidencing or relating to the work, services and disbursements charged to MNWD under this Agreement (collectively, "Books and Records"). Any and all Books and Records must be maintained in accordance with generally accepted accounting principles and must be sufficiently complete and detailed so as to permit an accurate evaluation of the services provided by Consultant under this Agreement. During such four (4) year period, Consultant shall give MNWD and its agents, during normal business hours, access to such Books and Records. MNWD and its agents shall have the right to make copies of any of the said Books and Records.

Section 12.2. Custody. Where MNWD has reason to believe that any of the Books and Records required to be maintained by this Article may be lost or discarded due to dissolution or termination of Consultant's business, MNWD may, by written request, require that custody of such Books and Records be given to a person or entity mutually agreed upon and such Books and Records thereafter shall be maintained by such person or entity at Consultant's expense. Access to the Books and Records shall be granted to MNWD and its Representatives.

SECTION XIII – GENERAL PROVISIONS.

Section 13.1. Delivery of Notices. All notices permitted or required under this Agreement shall be given to the respective parties at the following address, or at such other address as the respective parties may provide in writing for this purpose:

Consultant:

GHD, Inc.
175 Technology Drive, Suite 200
Irvine, CA 92618
Attn: Greg Watanabe
Principal-in-Charge

District:

Project and Operations Questions:

Moulton Niguel Water District
26161 Gordon Road
Laguna Hills, CA 92653
Attn: David Larsen
Project Manager

Contract and Legal Questions:

Moulton Niguel Water District
26161 Gordon Road
Laguna Hills, CA 92653
Attn: Jake Vollebregt
Director of Regional and Legal Affairs

Such notice shall be deemed made when personally delivered or when mailed, forty-eight (48) hours after deposit in the U.S. Mail, first class postage prepaid and addressed to the party at its applicable address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of service.

Section 13.2. Subcontracting/Subconsulting. Consultant shall not subcontract any portion of the work required by this Agreement, except as expressly stated herein, without prior written approval of MNWD. Subcontracts, if any, shall contain a provision making them subject to all provisions stipulated in this Agreement.

Section 13.3. Equal Opportunity Employment. Consultant represents that it is an equal opportunity employer and it shall not discriminate against any subconsultant, employee or

applicant for employment because of race, religion, color, national origin, handicap, ancestry, sex or age. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination. Consultant shall also comply with all relevant provisions of MNWD's Minority Business Enterprise program, Affirmative Action Plan or other related programs or guidelines currently in effect or hereinafter enacted.

Section 13.4. Time of Essence. Time is of the essence for each and every provision of this Agreement.

Section 13.5. MNWD's Right to Employ Other Consultants. MNWD reserves right to employ other consultants in connection with this Project.

Section 13.6. Successors and Assigns. This Agreement shall be binding on the successors and assigns of the parties.

Section 13.7. Assignment or Transfer. Consultant shall not assign, hypothecate or transfer, either directly or by operation of law, this Agreement or any interest herein without the prior written consent of MNWD. Any attempt to do so shall be null and void, and any assignees, hypothecates or transferees shall acquire no right or interest by reason of such attempted assignment, hypothecation or transfer.

Section 13.8. Construction; References; Captions. Since the Parties or their agents have participated fully in the preparation of this Agreement, the language of this Agreement shall be construed simply, according to its fair meaning, and not strictly for or against any Party. Any term referencing time, days or period for performance shall be deemed calendar days and not work days. All references to Consultant include all personnel, employees, agents, and subconsultants of Consultant, except as otherwise specified in this Agreement. All references to MNWD include its elected officials, officers, employees, agents, and volunteers except as otherwise specified in this Agreement. The captions of the various articles and paragraphs are for convenience and ease of reference only, and do not define, limit, augment, or describe the scope, content or intent of this Agreement.

Section 13.9. Amendment; Modification. No supplement, modification or amendment of this Agreement shall be binding unless executed in writing and signed by both Parties.

Section 13.10. Waiver. No waiver of any default shall constitute a waiver of any other default or breach, whether of the same or other covenant or condition. No waiver, benefit, privilege, or service voluntarily given or performed by a Party shall give the other Party any contractual rights by custom, estoppel or otherwise.

Section 13.11. No Third Party Beneficiaries. There are no intended third party beneficiaries of any right or obligation assumed by the Parties.

Section 13.12. Invalidity; Severability. If any portion of this Agreement is declared invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions shall continue in full force and effect.

Section 13.13. Prohibited Interests. Consultant maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for

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Consultant, to solicit or secure this Agreement. Further, Consultant warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. Consultant further agrees to file, or shall cause its employees or subconsultants to file, a Statement of Economic Interest with MNWD's Filing Officer as required under state law in the performance of the Services. For breach or violation of this warranty, MNWD shall have the right to rescind this Agreement without liability. For the term of this Agreement, no member, officer or employee of MNWD, during the term of his or her service with MNWD, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.

Section 13.14. Cooperation; Further Acts. The Parties shall fully cooperate with one another, and shall take any additional acts or sign any additional documents as may be necessary, appropriate or convenient to attain the purposes of this Agreement.

Section 13.15. Governing Law. This Agreement shall be governed by the laws of the State of California. Venue shall be in Orange County.

Section 13.16. Government Code Claim Compliance. In addition to any and all contract requirements pertaining to notices of and requests for compensation or payment for extra work, disputed work, claims and/or changed conditions, Consultant must comply with the claim procedures set forth in Government Code sections 900 et seq. prior to filing any lawsuit against MNWD. Such Government Code claims and any subsequent lawsuit based upon the Government Code claims shall be limited to those matters that remain unresolved after all procedures pertaining to extra work, disputed work, claims, and/or changed conditions have been followed by Consultant. If no such Government Code claim is submitted, or if any prerequisite contractual requirements are not otherwise satisfied as specified herein, Consultant shall be barred from bringing and maintaining a valid lawsuit against MNWD.

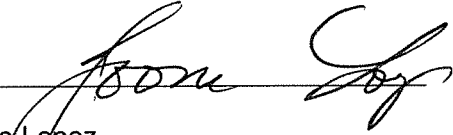
Section 13.17. Attorneys' Fees. If either party commences an action against the other party, either legal, administrative or otherwise, arising out of or in connection with this Agreement, the prevailing party in such litigation shall be entitled to have and recover from the losing party reasonable attorneys' fees and all other costs of such action.

Section 13.18. Authority to Enter Agreement. Consultant has all requisite power and authority to conduct its business and to execute, deliver, and perform the Agreement. Each Party warrants that the individuals who have signed this Agreement have the legal power, right, and authority to make this Agreement and bind each respective Party.

Section 13.19. Counterparts. This Agreement may be signed in counterparts, each of which shall constitute an original.

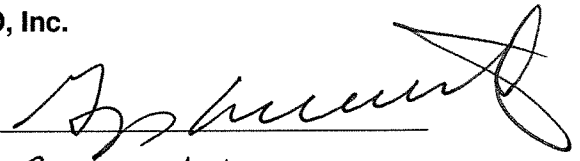
Section 13.20. Entire Agreement. This Agreement contains the entire Agreement of the parties with respect to the subject matter hereof, and supersedes all prior negotiations, understandings or agreements. This Agreement may only be modified by a writing signed by both parties.

MOULTON NIGUEL WATER DISTRICT

By: 
Joone Lopez
General Manager

10/10/17
Dated

GHD, Inc.

By: 
GREG WATANABE
Printed Name

VICE PRESIDENT
Title
9-29-2017
Dated

EXHIBIT A
Scope of Services

GHD has thoroughly reviewed the detailed scope of work and listing of corresponding deliverables included in the RFP and takes no exception to the provided language and will provide all requested services.

Further, GHD has adopted the detailed subtask breakout provided in the scope of work and has replicated the same subtask structure in the preliminary project schedule (Section D) and budget table (Section E).

The following includes GHD's enhancements to the scope of work provided in the RFP:

Task 4 – Geotechnical Exploration (for Potable and Recycled Pipelines Replacements)

Exploration will include three (3) exploratory borings up to 45 feet deep. Prior to exploration, the boring locations will be marked with white paint and registered with USA. One boring on the west side of I-5 will be drilled with a truck-mounted drill rig. Two borings on the east side of I-5 is only accessible through the golf course, and will be drilled with a small track-mounted drill rig. The borings will be drilled with hollow-stem augers. Samples will be obtained approximately every five feet with Standard Penetration Test and Modified California samplers, driven with a 140-pound hammer. Soils shall be field-classified in general accordance with ASTM D2488. The borings will be backfilled with soil cuttings.

Task 6 – Easement and Encroachment Permit Acquisition Support

It is our understanding the District will take the lead in acquiring easements and obtaining the title reports of properties. GHD will assist the District by providing only supporting information including Plat Maps and Legal Descriptions.

Task 10.4 – Optional Additional Geotechnical Exploration for Final Design of Trunk Sewer Undercrossing of I-5

This optional task includes an additional two borings, each to 45 feet deep, for incorporation into Task 4. The additional boring on the west side of I-5 will be drilled with a truck-mounted drill rig. The additional boring on the east side of I-5 is only accessible through the golf course, and will be drilled with a small track-mounted drill rig. The additional geotechnical exploration would be performed at the same time as Task 4 borings, and the information, conclusions, and recommendations in this optional task will be included in the geotechnical report for Task 4.

Optional Task 9.5 – Prepare Conformed Plans and Specifications

Based upon questions and RFIs addressed during the bidding phase, GHD will provide minor plan revisions to the construction drawings in preparation of a "Conformed" set of construction drawings and specifications prior to the commencement of construction. The budget for this task is based on a total of thirty-five (35) hours of GHD staff time, and a single electronic PDF submission of the Conformed documents.

Optional Task 9.9 – Attend Bi-weekly Construction Progress Meetings

Up to two GHD staff will attend up to sixteen (16) bi-weekly construction progress meetings of a duration of two (2) hours each at the District's office or construction site office. It is assumed that bi-weekly construction meeting #16 is the final job walk after the completion of construction.

EXHIBIT A
Scope of Services

Optional Task OPT-1 – Geotechnical Baseline Report

Using the information provided by the District for the RFP and that gathered during the geotechnical investigation, GHD will prepare a Geotechnical Baseline Report (GBR) in accordance with the ASCE (2007) guidelines. The focus of the GBR would be a baseline for potential changed conditions claims. The GBR will include:

1. Geotechnical and geologic characteristics of the site
2. Field and laboratory test results
3. Geotechnical parameters (cohesion, friction angle, earth pressure coefficients, active, at-rest, and passive resistance, groundwater levels) for the stratigraphy encountered
4. Seismic study and potential impacts
5. Ground loss and settlement analysis
6. Stability excavation areas
7. Recommendations for geotechnical design considerations
8. Trenchless construction considerations
9. Settlement monitoring program and protection of existing facilities along the pipeline alignment
10. Dewatering
11. Shoring
12. Grout
13. Backfill and compaction of shafts

The GBR would be issued about four weeks following the final geotechnical investigation report.

The Scope of Work includes: preparation of a Preliminary Design Report; coordination with project stakeholders; completion of a geotechnical evaluation and report; completion of an initial study and CEQA compliance; permit acquisition; preparation of construction plans, specifications and Contract Documents; and construction phase support. Proposals for the project should include and show all labor hours and costs by position, and all other direct costs for the required work. Specific work items shall consist of, but shall not be limited to, the following tasks:

2.1. *Project Administration/Management*

The Consultant shall include in the scope of work sufficient time and budget to administer the project. As a minimum, Consultant shall conduct, prepare an agenda for and distribute minutes of the project kick-off meeting, design review meetings after each submittal (as identified in Sections 2.2.8 and 2.7), and coordination meetings with the project stakeholders and/or regulatory agencies. Project administration shall also include preparation and maintenance of the project schedule for the design work, which is to be updated and distributed on a bi-weekly basis.

Deliverables: Agendas and minutes for eight (8) meetings; biweekly schedule updates

2.2. *Preliminary Design Phase*

The Consultant shall prepare a Preliminary Design Report that contains the following components at a minimum:

EXHIBIT A
Scope of Services

2.2.1 Records Search and Review

The District has made the following information available for download via the link below:

<https://mnwd.sharefile.com/d-s1acfb881ed64609b>

- Sectional Maps of the surrounding area
- Record Drawings of:
 - Existing 14” potable water main
 - Existing 8” & 12” recycled water mains
 - Existing 12” Oso Creek Trunk Sewer
- Extensive as-built records of pipelines within the surrounding areas.

This task covers a detailed review of these records for incorporation into the design. After award, the District will attempt to locate any other information requested by the Consultant.

Consultant is expected to perform all “Records Search” required in order to establish street centerlines, property lines, easements, and utilities. “Records Search” shall include, but is not limited to, the following:

- Any available recorded and unrecorded maps on file with the County or City, including assessors’ maps, records of survey, tract maps and parcel maps
- Monument ties and benchmark data
- Easements
- Environmental constraints

Deliverables: Electronic copies of all relevant information obtained from “Records Search”

2.2.2 Utility Research

Implement a systematic approach to accurately identify and locate existing utilities in construction area. Said approach may include, but is not limited to, the following:

- A. Submit letters to all utilities identified on USA’s database
- B. Organize a USA meet and mark
- C. Pre-mark all visible facilities during site walk-through
- D. Ensure that the utilities shown on available record drawings are accurate; update as required
- E. Submit preliminary construction drawings to any other affected utility owners (if any) requesting their review to ensure their facilities are correctly shown

Deliverables: Copies of any correspondence with other utility owners

EXHIBIT A
Scope of Services

2.2.3 Site Investigation

The Consultant shall perform a detailed site investigation to identify surface features and constraints to be incorporated into the design of the project. Recommended alignments for the replacement pipelines and corresponding locations for the boring and receiving pits shall be determined.

Deliverables: As needed; Results are to be included in a Preliminary Design Report

2.2.4 Design Survey and Base Construction Drawing

The Consultant shall implement a systematic approach to accurately complete a design survey and prepare a base construction drawing. Provide a ground control survey for right-of-way, curbs and gutters, easements, surface and utilities (including appurtenances) above grade, below ground utilities, and other elements relevant to preparing comprehensive construction drawings for construction of the pipelines. Said approach may include, but is not limited to the following:

- A. Research survey records and horizontal/vertical datum to be used
- B. Perform control and topographic surveys
- C. Analyze field and record survey data
- D. Reference all survey data to datum and permanent survey monuments
- E. Provide contours at an appropriate interval

Notes: Consultants are advised that the District will provide its digital terrain model and aerial photography that is based on a flight in May 2014. The model can be used to generate contours and has an accuracy of plus or minus a foot. The model does not have planimetric data in it. This data may be obtained by survey of available aerial photography.

Deliverables: One (1) electronic copy of the completed Base Construction Drawing, together with the proposed horizontal alignments of the new pipelines. The District will complete a cursory review prior to authorizing Consultant to proceed with the tasks below.

Note: "Full size" Drawings/Plans shall be 22" x 34" such that 11" x 17" prints are true half size. Also, construction drawings shall be tied to the State Plane Coordinate System.

2.2.5 Potholing

The Consultant shall prepare a potholing plan for locating underground utilities that may conflict with the proposed pipeline alignment. The plan shall include a list and redlined drawings of recommended utilities to be potholed. The District will approve this list prior to commencing. Potholing shall be performed to verify the exact horizontal and vertical locations of all potential utility conflicts. Potholing depth shall be sufficient to determine the top and bottom of the potential utility conflicts. Consultant shall submit a pothole report to document findings.

EXHIBIT A
Scope of Services

For this proposal, Consultant shall assume that approximately fifteen (15) potholes will be required.

Consultant shall be responsible for obtaining encroachment permits from CalTrans, the County, and City, as required, for the potholing activities.

Deliverables: List and drawings of proposed pothole locations: pothole report

2.2.6 Preliminary Drawings

The Consultant shall prepare preliminary drawings for the proposed PW and RW pipeline replacements based on the recommended alignments. If feasible to construct the trunk sewer replacement utilizing trenchless technologies, Consultant shall prepare preliminary drawings as part of this Task. Preliminary drawings shall include plan and sectional views of the alignments, locations of boring and jacking pits, public right-of-way, property lot lines, existing site features, and any applicable existing easements.

Deliverables: Results are to be included in the Preliminary Design Report

2.2.7 Preliminary Cost Estimate and Schedule

Prepare a preliminary cost estimate, along with design and construction schedules, for the pipeline replacements project. The cost estimate and schedules shall be broken out into sufficient detail to provide an accurate representation of all major portions of the project.

Deliverables: Preliminary construction cost estimate: Preliminary construction schedule

2.2.8 Project Constraints

As part of the preliminary design effort, the Consultant shall coordinate with project Stakeholders and sub-consultants as necessary to determine the project constraints. These constraints may include, but not be limited to the following:

- A. Design criteria
- B. Constraints
- C. Permit and plan check requirements
- D. Geotechnical
- E. Environmental
- F. Easement considerations

Deliverables: Results are to be included in the Preliminary Design Report

2.2.9 Preliminary Design Report

The Consultant shall prepare a draft and a final Preliminary Design Report. The report shall summarize all Tasks in Section 2.2 and include evaluations of the findings and recommendations for the pipeline replacements. The draft report shall be submitted

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Scope of Services

for District's review. A three-week review period should be assumed for the purposes of the proposal. Following the District's review and the associated design review meeting, Consultant shall provide the final report, which has incorporated all of the District's comments.

Note: It is the District's intent that at the end of the preliminary design effort, all requirements and constraints for the final design have been identified and can reasonably be incorporated into the final design documents.

Deliverables: Draft and Final Preliminary Design Report, including summary of "Records Search", utility research, trunk sewer flow study letter report (by others), design criteria, cost estimate, evaluations and recommendations; Five (5) bound paper copies, one (1) searchable PDF copy, and one copy of all files in native format.

2.3. *Project Stakeholders Coordination and Permit Acquisition Support*

At key phases of the design process, the Consultant shall coordinate with the project stakeholders. Stakeholders may include, but are not limited to the City of Mission Viejo, CalTrans, Regional Water Quality Control Board, US Army Corps of Engineers, California Department of Fish and Wildlife, Division of Occupational Health and Safety, and Mission Viejo Country Club.

The Consultant shall prepare all permit applications and plan check packages and submit to the proper authorities with the appropriate filing fees on the District's behalf. It is anticipated that permits will be required from U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and the Regional Water Quality Control Board. Consultant will also provide acquisition support services, including, but not necessarily limited to the following:

- A. Attendance at coordination meetings with Stakeholders (included in Task 2.1).
- B. Providing technical support for application materials and acquisition efforts.
- C. Ensuring that all permit conditions are incorporated into the Contract Documents.

The District will reimburse for any applicable permit and plan check fees without any markup.

Deliverables: Copies of any correspondence with regulatory agencies; Results are to be included in the final design and Contract Documents; Copies of all permit applications and permits

2.4. *Geotechnical Exploration*

The Consultant shall prepare a geotechnical exploration and testing plan for the proposed alignment. The plan shall include a list and redlined drawings of recommended geotechnical boring locations. The District will approve this list prior to commencing. The depth of the soil borings shall be adequate to characterize the soils to a depth of at least ten feet below the proposed pipelines or as required for design. Samples should be collected as needed to be adequate, in the Consultant's professional judgment, to define the soils' properties affecting the design and construction of the pipelines. Consultant shall submit a geotechnical report to

EXHIBIT A
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document findings and provide recommendations. The locations of all borings shall be plotted on a map and attached to the report, preferably using survey coordinates consistent with the project survey. Complete logs of all soil profiles shall be included in the report with all thicknesses (including pavement and base thicknesses where applicable), descriptions, classifications, and properties relevant to the design and construction of the pipelines. The geotechnical report shall also discuss the corrosion potential for metallic pipe materials (if used) on the project and recommendations for corrosion protection. The report shall make recommendations relevant to the design, including but not limited to dewatering, shoring, backfill, compaction, and corrosion protection.

Deliverables: List and drawings of proposed boring locations; draft and final geotechnical report

2.5. CEQA Documentation

The Consultant shall complete the California Environmental Quality Act (CEQA) process. Work shall consist of, but shall not be limited to, the following tasks:

2.5.1 Biological / Tribal Constraints Summary

The Consultant shall provide a biological survey and summarize the constraints. A detailed vegetation map showing habitat types within an appropriate radius of the replacement pipeline alignments shall be created in the field and digitized for use in the report. General surveys for plant and wildlife species shall be conducted in the field, and an assessment of the potential federally or state listed or other rare species presence shall be performed. Due to the pipeline alignment through the Oso Creek and La Paz Creek, it is anticipated that the biological survey work will be extensive.

Additionally, the Consultant shall identify and notify potentially impacted tribal entities. The Consultant shall provide consultation with those entities to identify and address potential adverse impacts to tribal cultural resources pursuant to CEQA guidelines and Assembly Bill 52.

A biological / tribal constraints document shall be prepared and submitted to the District to support the preparation of the Mitigated Negative Declaration (MND) documents. The report is to include vegetation mapping and a discussion of potential biological and tribal constraints of the project.

Deliverables: Constraints documentation.

2.5.2 Draft Initial Study / Mitigated Negative Declaration Preparation

The Consultant shall prepare the Screencheck Initial Study/Mitigated Negative Declaration (IS/MND) for District review and Draft IS/MND for public review.

The draft Initial Study shall be prepared in accordance with CEQA guidelines, as well as other regulatory agency guidelines (as applicable). The Initial Study shall:

1. Describe the proposed project

EXHIBIT A
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2. Document the environmental conditions of the project site
3. Determine the level of impact to onsite environmental resources
4. Make the CEQA mandated findings.

For each question asked in the Initial Study checklist, the Draft IS/MND shall include a discussion of the environmental setting, significance thresholds, project impacts, mitigation measures, cumulate impacts, and the level of significance after mitigation.

The Consultant shall submit five (5) hard copies plus an electronic copy of the Screencheck IS/MND for District review. Following the District review, a meeting will be held to review the comments for incorporation into the Draft IS/MND.

Consultant shall prepare a Public Review Draft IS/MND consistent with all publishing/filing requirements. The CEQA document shall be subject to a 30-day public review period. The Consultant shall prepare appropriate public notices for inclusion in local newspapers and posting at the County Clerk, as well as hard copies for distribution. The Consultant shall pay any required publishing and filing fees and bill the District for reimbursement.

The Consultant shall also submit the document to the State Clearinghouse, along with a summary sheet, Notice of Completion form, and Notice of Intent to Adopt form.

Deliverables:

Consultant shall submit the items identified below for each of the specified milestones. The submittals shall follow the schedule prepared by the Consultant in accordance with Part 2.1 of this Request for Proposal.

- Screencheck IS/MND Documents – Submit five (5) copies of the draft Initial Study, Negative Declaration, and Mitigation Measures to District for review.
- Public Review Draft IS/MND Documents
 - Publish twenty (20) hardcopies for public review.
 - Transmit fifteen (15) electronic copies to State Clearinghouse.
 - Filing of notice with County Clerk
 - Publication of notice in two (2) local newspapers

2.5.3 Final Initial Study / Mitigated Negative Declaration Preparation and Response to Comments

At the completion of the public review period of the Draft IS/MND, the Consultant shall review and address all comments received, and prepare the Final MND. The Consultant shall prepare a draft of the Final IS/MND for District review, then incorporate any comments received into the Final IS/MND for Board consideration.

It is anticipated that some level of mitigation measures will be required for this project. As such, the Consultant shall prepare a Mitigation Monitoring and Reporting Program (MMRP) including all mitigation measures in tabular format for

EXHIBIT A
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submittal to the District. The MMRP shall contain a compilation of all mitigation measures identified in the MND, and be consistent with the appropriate requirements of the Public Resources Code.

At the completion of the Final IS/MND and MMRP, the Consultant shall present the results to the District's Board of Directors in a workshop for the understanding and approval of the documents. Upon completion of the final document and approval by the District's Board of Directors, Consultant shall prepare the Notice of Determination and file with the appropriate filing fees. The District will reimburse for any fees associated with filing the CEQA documents without any markups.

Deliverables:

Consultant shall submit the items identified below for each of the specified milestones. The submittals shall follow the schedule prepared by the Consultant in accordance with Part 3.1 of this Request for Proposal.

- Draft Final IS/MND Documents – Submit five (5) hard copies of the draft Final Initial Study, Negative Declaration, and Mitigation Measures to the District for review.
- Final IS/MND Documents – Submit twenty (20) hard copies and one (1) CD with all master files of the Final Initial Study, Negative Declaration, and Mitigation Measures for District Board of Directors approval.
- Mitigation Monitoring and Reporting Program (bound into Final MND)
- Required noticing documents

2.6 Easement and Encroachment Permit Acquisition Support

The Consultant shall determine all new easement and temporary encroachment permit requirements for the project, and assist the District in acquiring said easements and encroachment permits as required.

The Consultant shall prepare all legal descriptions and plats as required for submission to the property owners and Orange County Recorder. For the purposes of this RFP, Consultant shall assume that up to three (3) new easements will be required. It is anticipated that one (1) temporary encroachment permit will be required.

Deliverables: Legal description and plat for each new easement. Permit applications and plan check packages.

2.7 Preparation of Final Design and Contract Documents

The Consultant shall prepare a complete set of Contract Documents (Construction Drawings and Specifications) for construction of the proposed facilities. The Consultant shall prepare the Contract Documents using the District's standard format, standard forms, standard agreement, standard bonds, complete General Provisions, pertinent Special Provisions, pertinent Technical Specifications, and pertinent Standard Drawings. The District will provide the latest versions of these documents prior to the Consultant commencing this Task.

EXHIBIT A
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In general, the construction drawings, bid sheets, special provisions, and technical specifications will require a high degree of specialization.

The Consultant will be required to make the three (3) submittals described as follows:

75% Submittal

Plans for this submittal shall include detailed components of the pipeline alignment and profile design, including civil/site plans, sections, and details. All sections of the Contract Documents and Specifications shall be included along with a preliminary engineer's estimate of probable construction cost (Task 2.8).

100% Submittal

This submittal will include the complete Construction Plans, Construction Documents and Specifications, and a final engineer's estimate of probable construction cost (Task 2.8).

The 100% submittal shall incorporate all District comments from the 75% Review (or an explanation of why the comment was dismissed). The 100% submittal shall be ready to bid in the Consultant's opinion.

Final Contract Documents

After the District completes a cursory review of the 100% submittal, the Consultant will be instructed to prepare Final Contract Documents. The Final Contract Documents shall incorporate all District comments from the 100% Review (or an explanation of why the comment was dismissed). The Final Contract Documents shall be stamped and signed construction plans (Mylar's) and unbound specifications for District's signatures.

After obtaining District signatures, Consultant shall provide the District with fifteen (15) sets of bound full size construction plans and fifteen (15) sets of bound construction specifications with 11"x17" reduced construction drawings enclosed as an exhibit.

Deliverables:

- 75% Submittal – Five (5) full size sets of construction plans and Five (5) sets of bound construction specifications with 11"x17" reduced construction drawings enclosed as an exhibit. A fully searchable PDF copy will also be required. The preliminary construction cost estimate is to be provided with this submittal.
- 100% Submittal – Five (5) full size sets of construction plans and Five (5) sets of bound construction specifications with 11"x17" reduced construction drawings enclosed as an exhibit. A fully searchable PDF copy will also be required. The final construction cost estimate is to be provided with this submittal.
- Final Contract Documents – One (1) full size set of stamped and signed reproducible construction plans (Mylars) and unbound specifications for District signature. Thereafter, fifteen (15) sets of bound full size construction plans and fifteen (15) sets of bound construction specifications with 11"x17" reduced construction drawings

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enclosed as an exhibit. For the final submittal, specifications shall be provided with colored pages as follows: Bid Forms – White, General Provisions – Blue, Special Provisions – Pink, and Technical Specifications – Green. A fully searchable PDF copy will also be required.

Note: “Full size” Drawings/Plans shall be 22” x 34” such that 11” x 17” prints are true half size. Also, construction drawings shall be tied to the State Plane Coordinate System.

2.8 Construction Cost Estimate

The Consultant shall provide to the District estimates of the probable construction cost for the complete project. Two (2) formats of the estimates shall be provided: (1) full detailed cost breakdown and (2) in the format of bid items prepared for the Construction Specifications. A construction cost estimate shall be provided with the 75% and 100% Submittals (i.e. preliminary construction cost estimate and final construction cost estimate). The final construction cost estimate shall be prepared in sufficient detail that a contingency is not required.

Deliverables: Preliminary and Final Construction Cost Estimates in both (1) fully detailed and (2) bid item formats

2.9 Bid and Construction Phase Support Services

Upon completion of the preparation of Final Design by the Consultant, and only if authorized by the District, the Consultant shall proceed with the bid and construction phase support of the project. Proposals should include and show all labor hours and labor costs by position, and all other direct costs for the required work. Work shall consist of, but shall not be limited to, the following tasks:

2.9.1 Project Administration/Management

The Consultant shall include in the scope of work sufficient time and budget to administer the services provided. Administration shall include, but not be limited to, responding to questions during the bid and construction phases, conducting pre-bid meeting and site visit, providing engineering support throughout the construction phase, and final record document preparation as outlined below.

Deliverables: As needed

2.9.2 Bid Phase Support

During the bidding period, the Consultant shall assist with providing information and clarification of the Contract Documents to prospective bidders as requested. The Consultant shall assume two (2) addenda will be required during the bid process and shall incorporate this scope and fee into the proposal. The Consultant shall also conduct an onsite pre-bid meeting.

Deliverables: Two (2) Addenda if required; pre-bid meeting agenda and minutes

EXHIBIT A
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2.9.3 Construction Phase Services

During the construction of the proposed improvements, the Consultant shall provide the following construction phase services and include appropriate fees in the submitted Proposal:

- A. Pre-Construction Meeting: Attend pre-construction meeting with the District and Contractor prior to beginning construction, and prepare agenda and minutes.
- B. Contractor's RFI: Respond to approximately fifteen (15) Requests for Information from the Contractor and the District. Consultant shall prepare and maintain a RFI log, and distribute on a bi-weekly basis during construction.
- C. Shop Drawing Reviews: Review and acceptance of at least forty (40) shop drawing submittals. If the Consultant anticipates that more shop drawing submittals than the above stated number will be required, the fee estimate shall state the anticipated number of shop drawings, and the hours required to review and process that quantity. Consultant shall include an adequate fee amount to perform a second review of each shop drawing submittal. Consultant shall prepare and maintain a shop drawing log, and distribute on a bi-weekly basis during construction.
- D. Site Visits: Six (6) visits of two hours as requested by District staff.
- E. Record Drawings: At the conclusion of the construction, the District will provide the Consultant with a single, consolidated set of red-lined as-built drawings. Consultant shall prepare the final record drawings based on the same. Record drawings shall be prepared in AutoCad.

Deliverables:

- RFI responses
- RFI log, distributed on a bi-weekly basis
- Submittal Review Comments
- Submittal log, distributed on a bi-weekly basis
- Three (3) full size sets of draft record drawings. Upon the District's review and approval, one (1) full size set of mylars with original signatures. In addition, provide electronic files in both AutoCad (including all reference files; NAD-83, State Plane Zone 6, NAVD-88 of all sheets) and PDF formats.

Note: "Full size" Drawings/Plans shall be 22"x34" such that 11"x17" prints are true half size.

2.10 Optional Additional Final Design of Trunk Sewer Undercrossing of I-5

As part of the preliminary design effort, the Consultant shall evaluate the feasibility of utilizing trenchless technology methods for the replacement of the portion of the Oso Creek Trunk Sewer below I-5. Upon determination that the trenchless methods are feasible, and only

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if directed by the District, the Consultant shall include the trunk sewer replacement as part of the final phases of the design. This task shall outline the additional time and budget for incorporation of the sewer replacement into the following phases of the Consultant's scope of work.

Deliverables: To be included in the deliverables for Tasks 2.3 through 2.9

2.10.1 Additional Stakeholder Coordination and Permit Acquisition Support for Final Design of Trunk Sewer Undercrossing of I-5 (Task 2.3)

2.10.2 Additional Geotechnical Exploration for Final Design of Trunk Sewer Undercrossing of I-5 (Task 2.4)

2.10.3 Additional CEQA Documentation for Final Design of Trunk Sewer Undercrossing of I-5 (Task 2.5)

2.10.4 Additional Easement and Encroachment Permit Acquisition Support for Final Design of Trunk Sewer Undercrossing of I-5 (Task 2.6)

2.10.5 Additional Preparation of Final Design and Contract Documents for Final Design of Trunk Sewer Undercrossing of I-5 (Task 2.7)

2.10.6 Additional Construction Cost Estimate for Final Design of Trunk Sewer Undercrossing of I-5 (Task 2.8)

2.10.7 Additional Bid and Construction Phase Support Services for Final Design of Trunk Sewer Undercrossing of I-5 (Task 2.9)

EXHIBIT B
Fee Schedule



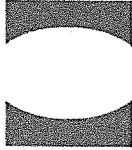
FEE PROPOSAL
 Moulton Niguel Water District
 Potable, Recycled, and Sewer Pipeline Replacements
 August 24, 2017

Task Description	QA/QC	Principal-in-Charge	Sr. Project Manager	Sr. Corrosion Engineer	Sr. Geotechnical Engineer	Sr. Tunnel Engineer	Pipelines / Hydraulic Modeling	Cost Estimator / Construct. Reviewer	Engineer - Pipeline/Traffic	Engineer/Geotechnical	CAD Designer	Project Assistant	GHD Hours	Subconsultant Hours	GHD Labor Costs	Subconsultants Including Markup	Other Direct Costs	Total
Task 1 – Project Administration/Management																		
Task 1.1 - Project Management Work Plan		1	2										4		\$ 690	\$ -	\$ 24	\$ 714
Task 1.2 - Conduct Kick-off Meeting (Meeting #1)		2	4										6		\$ 1,210	\$ -	\$ 66	\$ 1,276
Task 1.3 - Prelim. Design Report (PDR) Review Meeting (Meeting #2)		2	4										6		\$ 1,210	\$ -	\$ 36	\$ 1,246
Task 1.4 - Final IS/MND and MMRP Workshop (Meeting #3)			4										4		\$ 760	\$ -	\$ 24	\$ 784
Task 1.5.1 - 75% Design Review Meeting (Meeting #4)			4										4		\$ 760	\$ -	\$ 24	\$ 784
Task 1.5.2 - 100% Design Review Meeting (Meeting #5)			4										4		\$ 760	\$ -	\$ 24	\$ 784
Task 1.6 - Three Adm'l Progress Meetings (Meetings #6, #7, and #8)			12										12		\$ 2,280	\$ -	\$ 72	\$ 2,352
Task 1.7 - Maintain Schedule and Budget (17 months)			34										51		\$ 7,905	\$ -	\$ 300	\$ 8,211
Task 1.8 - Perform QA/QC Procedures (included in the associated tasks)															\$ -	\$ -	\$ -	\$ -
Subtotal – Task 1 – Project Administration/Management	0%	5%	75%	0%	0%	0%	0%	0%	0%	0%	0%	18	91		\$ 15,676	\$ -	\$ 576	\$ 16,251
Task 2 – Preliminary Design Phase																		
Task 2.1 - Records Research and Review			2										2		\$ 380	\$ -	\$ 12	\$ 392
Task 2.2 - Utility Research			4							24			30		\$ 4,410	\$ -	\$ 180	\$ 4,590
Task 2.3 - Site Investigation															\$ -	\$ -	\$ -	\$ -
Task 2.4 - Design Survey and Base Construction Drawing (Subconsultant)			1				2				2		6	165	\$ 855	\$ 36,018	\$ 36	\$ 36,909
Task 2.5 - Polishing (subconsultant) (15 polishes)			1				2				4		8		\$ 1,085	\$ 17,250	\$ 48	\$ 18,393
Task 2.6 - Preliminary Drawings (plan & sections, shaft locations, RAW)			4			8				18	16		46		\$ 6,970	\$ -	\$ 276	\$ 7,246
Task 2.7 - Preliminary Cost Estimate and Schedule			4					4					8		\$ 1,484	\$ -	\$ 48	\$ 1,532
Task 2.8 - Project Constraints			6				14						22		\$ 3,690	\$ -	\$ 132	\$ 3,822
Task 2.9.1 - Prepare Draft Preliminary Design Report			16			24	24			32	24		126		\$ 20,690	\$ -	\$ 756	\$ 21,446
Task 2.9.2 - Prepare Final Preliminary Design Report			8			8	8				4		31		\$ 5,545	\$ -	\$ 186	\$ 5,731
Subtotal – Task 2 – Preliminary Design Phase	6%	0%	46%	0%	0%	14%	18%	1%	27%	0%	18%	3%	279	166	\$ 45,919	\$ 53,268	\$ 1,674	\$ 100,061
Task 3 – Stakeholders Coordination & Permit Acquisition Support																		
Task 3.1 - CDFW, USACE, RWQCB			6				8						15	215	\$ 2,885	\$ 33,285	\$ 90	\$ 35,940
Task 3.2 - Golf Course, Caltrans, OSHA, OC Flood, City of M.V.			24			12	40				60		144		\$ 21,760	\$ -	\$ 864	\$ 22,624
Subtotal – Task 3 – Stakeholders Coordination & Permit Acquisition Support	0%	0%	30%	0%	0%	12%	48%	0%	0%	0%	30%	6%	168	215	\$ 24,645	\$ 33,265	\$ 954	\$ 58,864
Task 4 – Geotechnical Exploration																		
Task 4 - Geotechnical Investigation for Water Pipelines	1				14					46			65		\$ 9,860	\$ 8,050	\$ 5,520	\$ 23,439
Subtotal – Task 4 – Geotechnical Exploration	1%	0%	0%	22%	14%	0%	0%	0%	0%	71%	0%	6%	65		\$ 9,860	\$ 8,050	\$ 5,520	\$ 23,439
Task 5 – CEQA Documentation																		
Task 5.1 - Biological/Tribal Constraints Summary													1	226	\$ 85	\$ 33,794	\$ 6	\$ 33,885
Task 5.2 - Draft IS/MND Preparation	4		8										13	198	\$ 2,445	\$ 27,865	\$ 78	\$ 30,388
Task 5.3 - Final IS/MND and Response to Comments	2		4										7	56	\$ 1,265	\$ 10,317	\$ 42	\$ 11,624
Subtotal – Task 5 – CEQA Documentation	6%		12%	0%	0%	0%	0%	0%	0%	0%	0%	3%	21	480	\$ 3,795	\$ 71,976	\$ 128	\$ 75,897
Task 6 – Easement & Encroachment Permit Acquisition Support																		
Task 6.1 - Easement Preparation (3)			1				2						4	24	\$ 615	\$ 3,726	\$ 24	\$ 4,365
Task 6.2 - Caltrans, OSHA Tunnel, OC Flood, Mission Viejo Permits			5				10						20		\$ 3,075	\$ -	\$ 120	\$ 3,195
Subtotal – Task 6 – Easement & Encroachment Permit Acquisition Support	0%	0%	6%	0%	0%	0%	12%	0%	0%	0%	0%	6%	24	24	\$ 3,690	\$ 3,748	\$ 144	\$ 7,660



FEE PROPOSAL
 Moulton Niguel Water District
 Potable, Recycled, and Sewer Pipeline Replacements
 August 24, 2017

Task Description	QA/QC	Principal-in-Charge	Sr. Project Manager	Sr. Corrosion Engineer	Sr. Geotechnical Engineer	Sr. Tunnel Engineer	Hydraulic Modeling / Pipelines / Cost Estimator / Construct. Reviewer	Engineer / Pipeline/Traffic	Engineer / Corrosion/Geotechnical	CAD Designer	Project Assistant	GHD Hours	Subconsultant Hours	GHD Labor Costs	Subconsultants Including Markup	Other Direct Costs	Total
Task 7 – Final Design & Contract Documents																	
Task 7.1 - First (75%) Design Submittal	4	-	12	6	20	16	4	32	12	60	4	170	-	\$ 25,974	-	\$ 1,520	\$ 27,494
Task 7.2 - Second (100%) Design Submittal	6	-	12	8	20	16	6	32	16	54	4	174	-	\$ 27,046	-	\$ 1,544	\$ 28,590
Task 7.3 - Final M&P and Specifications Submittal	4	-	12	4	8	10	2	16	8	18	4	86	-	\$ 13,702	-	\$ 1,516	\$ 15,218
Subtotal – Task 7 – Final Design & Contract Documents	14	0%	36	18	48	42	12	60	36	182	12	430	-	\$ 65,722	-	\$ 4,600	\$ 71,302
Task 8 – Construction Cost Estimate	3%	0%	8%	4%	0%	11%	10%	19%	8%	31%	3%	-	-	-	-	-	-
Task 8.1 - Construction Cost Estimate	-	-	4	-	-	-	6	-	-	-	-	10	-	\$ 1,846	-	\$ 60	\$ 1,906
Subtotal – Task 8 – Construction Cost Estimate	0%	0%	4	0%	0%	0%	6	0%	0%	0%	0%	10	-	\$ 1,846	-	\$ 60	\$ 1,906
Task 9 – Bid & Construction Phase Support Services																	
Task 9.1 - Conduct Onsite Pre-Bid Meeting (Meeting #9)	-	-	3	-	-	-	-	-	-	-	-	3	-	\$ 570	-	\$ 48	\$ 618
Task 9.2 - Respond to Inquiries During Bidding (15 hours)	-	-	5	-	-	10	-	-	-	-	-	15	-	\$ 2,650	-	\$ 50	\$ 2,700
Task 9.3 - Prepare Bid Addenda (2)	-	-	3	-	-	6	-	-	-	16	2	27	-	\$ 3,680	-	\$ 162	\$ 3,842
Task 9.4 - Attend Pre-Construction Meeting (Meeting #10)	-	-	3	-	-	3	-	-	-	-	-	6	-	\$ 1,080	-	\$ 66	\$ 1,146
Task 9.5 - Prepare Conformal Plans and Specs (Fee in Optional Services)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Task 9.6 - Respond to Construction RFIs (15)	-	-	10	-	-	28	-	-	-	-	-	38	-	\$ 6,660	-	\$ 228	\$ 6,888
Task 9.7 - Respond to Shop Drawings (40)	-	-	28	-	30	46	-	-	-	-	-	104	-	\$ 19,440	-	\$ 624	\$ 20,064
Task 9.8 - Attend Construction Site Visits (6)	-	-	12	-	8	-	-	-	-	-	-	20	-	\$ 3,960	-	\$ 600	\$ 4,560
Task 9.9 - Attend Bi-weekly Construction Progress Meetings (Fee in Optional Services)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Task 9.10 - Prepare Record Drawings (18 Sheets)	1	-	4	-	-	6	-	-	-	-	-	26	-	\$ 3,200	-	\$ 156	\$ 3,356
Subtotal – Task 9 – Bid & Construction Phase Support Services	1	0%	68	0%	38	99	0%	0%	0%	31	2	239	-	\$ 41,630	-	\$ 1,974	\$ 43,604
Task 10 – Optional Additional Final Design Services																	
Task 10.1 - Additional Stakeholder Coordination and Permit Acquisition Support	-	-	12	-	-	24	-	-	-	40	16	92	-	\$ 12,520	-	\$ 552	\$ 13,072
Task 10.2 - Additional Geotechnical Exploration	-	-	-	-	8	-	-	20	-	-	1	29	-	\$ 4,625	\$ 5,750	\$ 3,375	\$ 13,750
Task 10.3 - Additional CEQA Documentation (Fee Included in Tasks Above)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Task 10.4 - Additional Exemption and Encroachment Permit Acquisition Support	-	-	3	-	-	6	-	-	-	-	3	12	-	\$ 1,845	-	\$ 72	\$ 1,917
Task 10.5 - Additional Preparation of Final Design and Contract Documents	4	-	16	8	20	18	8	24	12	40	4	154	-	\$ 24,668	-	\$ 924	\$ 25,592
Task 10.6 - Additional Construction Cost Estimate for Final Design	-	-	-	-	-	16	48	2	-	-	-	2	-	\$ 362	-	\$ 12	\$ 374
Task 10.7 - Additional Bid and Construction Phase Support Services	-	-	24	-	16	48	-	-	-	16	-	104	-	\$ 18,000	-	\$ 624	\$ 18,624
Subtotal – Task 10 – Optional Additional Final Design Services	4	0%	65	8	36	96	10	44	12	86	24	393	-	\$ 62,040	\$ 5,750	\$ 5,659	\$ 73,349
OPTIONAL SERVICES (NOT INCLUDED IN TOTAL FEE)																	
Task 9.5 - Prepare Conformal Plans and Specs	-	1	4	-	-	8	-	-	-	20	2	35	-	\$ 4,915	-	\$ 210	\$ 5,125
Task 9.9 - Attend Bi-weekly Construction Progress Meetings (16)	-	3	45	-	-	-	-	-	-	-	-	48	-	\$ 9,225	-	\$ 768	\$ 9,993
Task OPT-1 - Geotechnical Baseline Report	-	-	-	-	25	23	-	50	-	-	3	101	-	\$ 17,460	-	\$ 606	\$ 18,066
Subtotal – OPTIONAL SERVICES (NOT INCLUDED IN TOTAL FEE)	-	4	49	-	25	23	0	50	-	20	5	184	-	\$ 31,600	-	\$ 1,884	\$ 33,484
Total (Not-to-Exceed)	32	0%	6	325	26	22	174	347	32	188	94	884	884	\$ 274,822	\$ 176,035	\$ 21,176	\$ 472,033



Fee Schedule

For services by GHD, Inc.

Effective through June 30, 2018

Hourly Rates*

Principal-In-Charge / QA/QC	\$205 - 245
Senior Project Manager	\$165 - 226
Project Manager	\$175 - 223
Senior Engineer	\$160 - 220
Project Engineer	\$150 - 180
Staff Engineer	\$115 - 155
CAD Designer	\$ 80 - 165
Drafter	\$ 75 - 120
Project Assistant	\$ 70 - 125

Employee time will be billed in accordance with the fees listed above. Standard computer and technology costs are incorporated into these hourly rates, as well as direct labor, overhead, and fringe benefits. These rates are subject to change on a semi-annual basis. Professional employees will not be charged out at premium charge rates for overtime work.

Expenses and other similar project related costs are billed out at cost plus 15%. The cost of office consumables is billed on the basis of employee hours dedicated to the project at a rate of \$6.00/hour. Mileage will be billed at \$.535 per mile (or current IRS allowable rate) and parking expenses incurred by office employees are charged at cost. The services of outside consultants will be charged at cost plus 15%.

(*) These rates do not apply to forensic-related services, or to work for which Prevailing Wage obligations exist. It is the responsibility of the client to notify GHD Inc. in writing if Prevailing Wage obligations are applicable, in which case the fees will be adjusted proportionate to the increase in labor costs.



SCHEDULE OF FEES

Consulting Services

Consulting services performed by HELIX typically include, but are not necessarily limited to, office, field, meetings, hearings and travel time. Consulting services for expert witness review, deposition, and/or testimony will be provided at one and one-half times our professional rates.

Direct Costs

Certain identifiable direct costs will be charged to the project at cost plus ten percent. Examples of direct costs include subconsultants, vehicle or equipment rentals, airplane and train fares, parking, per diem and lodging, mileage, communications, reproduction, and supplies. A 4-wheel drive premium will be charged at \$25.00 per project day. There will be additional charges for plotting, color printing, aerial photographs and GPS services.

Payment

Invoices will be submitted monthly. Payment on invoices is due within thirty days of receipt. If payment is not paid when due, then such sum shall bear interest at 1 1/2 % per month on the unpaid balance, not to exceed the maximum legal rate of interest.

Professional Rates

Current hourly rates for consulting services:

Principal	\$205.00-220.00
Principal Planner	\$190.00-215.00
Principal Biologist	\$190.00-215.00
Principal Permitting Specialist	\$170.00-200.00
Principal Acoustician	\$180.00-190.00
Sr. Fisheries Scientist	\$200.00-220.00
Sr. Project Manager I-III	\$150.00-190.00
Sr. Air Quality Specialist	\$160.00-180.00
Sr. Environmental Specialist	\$150.00-170.00
Noise/Air Quality Specialist	\$145.00
Environmental Specialist I-III	\$85.00-150.00
Environmental Compliance Specialist	\$100.00
Project Manager I-III	\$110.00-150.00
Archaeology Field Director	\$90.00
Staff Archaeologist	\$80.00
Archaeology Field Crew	\$75.00
Sr. Archaeologist	\$135.00-150.00
Historian	\$70.00-125.00
Environmental Planner I-III	\$80.00-110.00
Environmental Analyst	\$65.00-75.00
Sr. Scientist	\$120.00-185.00
Biologist I-V	\$70.00-115.00
Assistant Biologist	\$50.00-60.00
Sr. GIS Specialist	\$115.00-155.00
GIS Specialist I-III	\$75.00-105.00
GIS Technician	\$50.00-60.00
Graphics	\$110.00
Document Coordinator	\$80.00
Technical Editor	\$70.00-90.00
Operations Manager	\$85.00
Word Processor I-III	\$65.00-80.00
Clerical	\$60.00

Rates are subject to change on a yearly basis

Rate Schedule (2017)
"Prevailing Wage"

Item Description	Unit	Unit Price
Field Support		
Field Survey Crew & Equipment (Prevailing Wage)*	Hour	\$325.00
Round Trip Travel Time & Costs	Hour	\$140.00
Office Support		
Principal	Hour	\$250.00
Director Surveying/Professional Land Surveyor	Hour	\$210.00
Senior Project Manager	Hour	\$175.00
Project Surveyor	Hour	\$160.00
GPS Post Processing	Hour	\$150.00
Survey Technician	Hour	\$145.00
Drafting/AutoCAD Technician	Hour	\$110.00
Accounting / Clerical	Hour	\$80.00
Reimbursable Costs		
In-House Reproductions		Cost + 15%
Printing and Materials		Cost + 15%
Parking and Tolls		Cost + 15%
Express Mail, Courier, Next Day Service		Cost + 15%
Special Sub-Consultant Services (GPR, etc.)		Cost + 10%
Miscellaneous Services		
Per Diem (when required)	Day	Per GSA Schedule
Consultation in Connection with Litigation	Hour	\$450.00
Transportation (per 2017 IRS Mileage Rate)	Mile	\$0.54
Overtime and Saturday Rates		
	Hour	1.5 times Hourly Rate

The hourly rate increase 3% per year to cover cost of living. Also a 10% mark-up will be added to any sub-consultants utilized to cover project management and administration costs. Hourly rates good for 2017.

*4 or 8 Hour Minimum



Your First Choice for Potholing Services

ESTIMATE

To: Ulysess Fandino
GHD
175 Technology Drive Suite 200
Irvine, Ca. 92618

Date: August 22, 2017
 Quote # M482217-PH13
 Expiration Date: November 20, 2017

Item #	Qty	Description	Unit Price	Line Total
Project Name: MNWD Pipeline Replacement at 1-5 FWY & Oso Creek Sales Person: Mike Arma				
1		Potholes 0 - 4 feet deep (each)	\$ 350.00	
2		Potholes 4 - 5 feet deep (each)	\$ 400.00	
3		Potholes 6 - 8 feet deep (each)	\$ 550.00	
4		Potholes 8 - 10 feet deep (each)	\$ 750.00	
5		Potholes 10 - 12 feet deep (each)	\$ 850.00	
6		Potholes 12 - 15 feet deep (each)	\$ 1,050.00	
7		Potholes over 15 feet deep (each)-\$1000 + \$250/per hour over 15 ft		
8		Slot Trenches (per cubic foot) - 1'x5'x up to 6' deep	\$ 1,200.00	
9		Slot Trenches of other Dimensions (per cubic foot)	\$ 40.00	
10		Manhole / Vault "Dipping" (Each)	\$ 200.00	
ASPHALT REPAIR				
11		Cold-Mix Asphalt (each)	\$ 10.00	
12		Perma Patch / Rapid Set/Hot Mix Asphalt Repairs	\$ 75.00	
13		Hot-Patch Asphalt Grind & Overlay (Each)	\$ 450.00	
TRAFFIC CONTROL				
14		Traffic Control Plans (per sheet)	\$ 100.00	
15		Engineered Stamped Traffic Plans (per sheet)	\$ 750.00	
16		Standard Traffic Control (per day)	\$ 500.00	
17		Major Traffic Control (per day)	\$ 1,000.00	
18		Major Traffic Control (per night)	\$ 1,500.00	
19		Flagman Service (per man hour)	\$ 60.00	
20		Flagman Service (per man hour)- Prev Wage	\$ 75.00	
21		Permit Prep and Acquisition (per hour)	\$ 75.00	
TRAVEL				
22		Travel Time (Per Hour)	\$ 150.00	
23		Per Diem (PER NIGHT)	\$ 195.00	
REPORTING				
24		Subsurface Utility Report (1 - 5 potholes) (each)	\$ 100.00	
25		Subsurface Utility Report (5 - 10 potholes) (each)	\$ 200.00	
26		Subsurface Utility Report (10 - 20 potholes) (each)	\$ 300.00	
27		Subsurface Utility Report (20 - 30 potholes) (each)	\$ 400.00	
28		Subsurface Utility Report (30 - 40 potholes) (each)	\$ 500.00	
29		Subsurface Utility Report (40 - 50 potholes) (each)	\$ 600.00	
30		Subsurface Utility Report (50-80) potholes) (each)	\$ 850.00	
OTHER COSTS				
31		Night Work Premium (PER NIGHT)	\$ 500.00	
32		Stand-By Time (PER HOUR)		
33		Dig Alert, Delineation and Mark Out (PER HOUR)	\$ 100.00	
Excluded: Permit and Deposit Fees to be paid by client prior to start of work				
Encroachment & Traffic Permits			Parking Meter Buyouts	
Deposit Amt				

USI to:	Subtotal
Delineate for USA DigAlert mark-outs	Permit Estimate
Process City ROW/Traffic Permits and Parking Meter Closure signs as necessary	Total \$
Set traffic control per approved plans	
Vacuum excavate each site, determine depth and width of any encasements	
Backfill, compact and patch	
Mark each location with PK nails and paint or with stake for future survey	
Prepare a "Subsurface Utility Report" w/data, photos and PH Locations map	

Customer to:
 Provide Permit and Deposit Fees Prior to start of work
 Supply pothole locations prior to work

This proposal is based on digable conditions using the air excavation process, if cemented soil, cobble or other undigable soils are encountered this proposal will revert to hourly.

Standard Notes:
 Terms: NET 30
 The above is an "estimate". Final costs will be determined by the actual number of work hours and travel time logged.
 A cancellation fee may apply if job is cancelled at site.

This is a quotation on the goods named, subject to the conditions, inclusions and/or exclusions noted above. To accept this quotation, sign here and return

#5.

EXHIBIT "C"

AMENDMENT NO. 1 TO THE PROFESSIONAL SERVICES AGREEMENT
BETWEEN MOULTON NIGUEL WATER DISTRICT AND GHD, INC.
MNWD PROJECT: POTABLE, RECYCLED, AND SEWER PIPELINE
REPLACEMENTS AT I-5 AND OSO CREEK
CONTRACT NOS. 2017.009, 2017.014, 2017.018

This Amendment No. 1 (this "Amendment") is entered into and effective as of June 8, 2018, amending the Professional Services Agreement for the Potable, Recycled, and Sewer Pipeline Replacements at I-5 and Oso Creek, dated October 13, 2017 (the "Agreement") by and between Moulton Niguel Water District ("District") and GHD, Inc. ("Consultant") (collectively, the "Parties"). Any capitalized terms used but not defined herein shall have the meaning assigned to them in the Agreement.

RECITALS

A. WHEREAS, on October 13, 2017, the Parties entered into the Agreement for certain geotechnical professional services for the potable, recycled, and sewer pipeline replacements at I-5 and Oso Creek for a total not-to-exceed amount of \$472,033; and

B. WHEREAS, the Parties now desire to supplement the scope of work for additional environmental survey work, and increase the not-to-exceed amount by \$18,695; and

C. WHEREAS, the Parties have negotiated and agreed to a supplemental scope of work and related fees schedule, which is attached hereto and incorporated herein by this reference as Exhibit A to this Amendment.

NOW, THEREFORE, in consideration of these recitals and the mutual covenants contained herein, District and Consultant agree as follows:

1. The Agreement is hereby revised to include the Services described in the Supplemental Scope of Work attached hereto as Exhibit A to this Amendment.

2. All payments for services associated with this Amendment shall not exceed the amount of Eighteen Thousand, Six Hundred Ninety-Five Dollars (\$18,695).

3. The Parties agree that the total Agreement amount, including this Amendment, shall not exceed Four Hundred Ninety Thousand, Seven Hundred Twenty-Eight Dollars (\$490,728).

3. All other provisions of the Agreement will remain in full force and effect. In the event of any conflict or inconsistency between the Agreement and previous amendments and this Amendment, the terms of this Amendment shall control.

4. All requisite insurance policies to be maintained by Consultant pursuant to the Agreement, as may have been amended from time to time, will include coverage for this Amendment.

Amendment No 1. – 2017.009, 2017.014, 2017.018
Potable, Recycled, and Sewer Pipeline Replacements at
I-5 and Oso Creek

#5.

5. The individuals executing this Amendment and the instruments referenced in it on behalf of Consultant each represent and warrant that they have the legal power, right and actual authority to bind Consultant to the terms and conditions of this Amendment.

GHD, INC

By:



(sign here)

PAUL HERMANN / VICE PRESIDENT

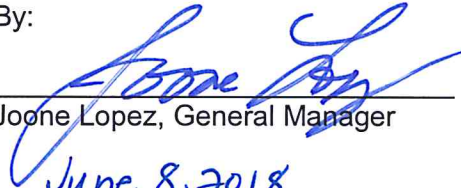
(print name/title)

5/30/18

Date

MOULTON NIGUEL WATER DISTRICT, a California Water District

By:



Joone Lopez, General Manager

June 8, 2018

Date



EXHIBIT A

April 13, 2018

David Larsen, P.E.
Moulton Niguel Water District
26161 Gordon Road
Laguna Hills, CA 92653

**SUBJECT: Potable and Recycled Water Pipeline Replacements at I-5 and Oso Creek
Additional Budget Proposal for Additional Biological Services**

Dear David,

We have prepared this additional budget proposal to perform additional biological services as previously discussed and described in further detail in the attached proposal from our environmental subconsultant, HELIX Environmental Planning (HELIX).

As discussed during our project meeting on March 1, 2018, HELIX will perform additional biological surveys and awareness training for the project prior to the start of the pipeline construction to establish the boundaries between sensitive biological habitat and the construction work area. The additional biological surveys and awareness training are a result of the sensitive biological habitat identified during the initial biological surveys of the project area, and therefore were not part of the original costs on the project. GHD will coordinate with MNWD prior to commencing the additional biological surveys by HELIX.

Our budget to complete the work is presented in the fee breakdown below. Our fee will be on a time and material basis with a not-to-exceed amount of \$18,695.

Task Description	Project Manager	Project Assistant	GHD Hours	GHD Labor	Subconsultant including markup (10%)	Other Direct Costs	Total
Hourly Rates	\$190	\$85					
Task 5.4 – Additional Biological Surveys and Awareness Training	4	1	5	\$845	\$17,820	\$30	\$18,695
Total (Not-to-Exceed)	4	1	5	\$845	\$17,820	\$30	\$18,695

We request your approval on the additional budget of \$18,695 for the additional biological services. If you have any questions regarding this proposal, please contact me anytime at (949) 585-5203 and ulysses.fandino@ghd.com.

Sincerely,
GHD Inc.

Ulysses Fandino, P.E.
Project Manager

Attachment: HELIX proposal to GHD dated April 13, 2018

#5.

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942
619.462.1515 tel
619.462.0552 fax
www.helixepi.com



April 13, 2018

GHD-04

Mr. Ulysses Fandino
GHD
175 Technology Drive, Suite 200
Irvine, CA 92618

Subject: Contract Augment to Provide Additional Biological Services for the Potable and Recycled Pipeline Replacements at I-5 and Oso Creek Project

Dear Mr. Fandino:

HELIX Environmental Planning, Inc. (HELIX) is submitting this contract augment to GHD (Client) to provide additional biological consulting services for the Potable and Recycled Pipeline Replacements at I-5 and Oso Creek Project (project) located in Section 12 of Township 7 South, Range 8 West of the San Juan Capistrano, California US Geological Survey (USGS) 7.5-minute topographic quadrangle. The original written contract dated October 23, 2017 between HELIX and the Client is hereby augmented as follows:

SCOPE OF WORK (See attached)

CURRENT CONTRACT TOTAL		\$95,674
Task Number	Task Name	Cost
3.1	Worker's Education Awareness Program Brochure and Training	3,100
3.2	Least Bell's Vireo Surveys	5,000
3.3	Southwestern Willow Flycatcher Surveys	<u>8,100</u>
	SUBTOTAL	16,200

TOTAL REVISED CONTRACT \$111,874

I hereby authorize HELIX to continue work in accordance with this Augment and the original Terms and Conditions and Schedule of Fees.

HELIX Environmental Planning, Inc.

By: Shelby Howard
Shelby Howard
Biology Division Manager

(Client)

By: _____

Date: April 13, 2018

Date: _____

SCOPE OF WORK

- Task 3.1 Worker's Education Awareness Program Brochure and Training. HELIX will prepare a Worker's Education Awareness Program (WEAP) brochure that will contain biological information and photographs of the sensitive biological resources found on the study area as recommended by proposed Mitigation Measures (MM) BIO-1 and BIO-3 of the project Biological Technical Report (BTR) prepared by HELIX on February 28, 2018. The brochure will also contain a brief summary of the general restrictions during construction, requirements prior to commencing and at the conclusion of work each day, and contact information for the for the project manager and lead biologist from HELIX. HELIX will also attend a single pre-construction meeting for the project and will administer the WEAP training for project personnel. HELIX will provide a sign-in sheet to document personnel attendance. If more than one training of personnel is required, additional authorization would be needed.
- Task 3.2 Least Bell's Vireo Surveys. If construction activities are proposed during the nesting season (March 15 through August 31) for least Bell's vireo (*Vireo bellii pusillus*), HELIX will conduct surveys for the federally and state listed endangered species within suitable habitat on the study area in compliance with MM BIO-1 of the project BTR. The surveys will follow the most current US Fish and Wildlife (USFWS) protocol that requires eight surveys at least ten days apart between April 10 and July 31. As required under the USFWS protocol for conducting vireo surveys, HELIX will submit a written report to the USFWS after completing the final survey. An electronic copy of the report will be provided to the Client. The cost for these surveys takes into consideration that five of the eight surveys will be conducted on the same dates as the southwestern willow flycatcher surveys included as Task 3.3 below.
- Task 3.3 Southwestern Willow Flycatcher Surveys. If construction activities are proposed during the nesting season (May 1 through August 31) for southwestern willow flycatcher (*Empidonax traillii extimus*), HELIX will conduct surveys for the federally and state listed endangered species within the appropriate habitat on the study area in compliance with MM BIO-1 of the project BTR. The surveys will follow the most current USFWS protocol that requires five surveys be conducted between May 15 and July 17. According to this protocol, the first survey is to be conducted between May 15 and May 31, the second between June 1 and June 24, and the third through fifth surveys between June 25 and July 17, with a minimum of five days separating each survey. As required under HELIX's 10(a)(1)(A) recovery permit (TE778195) with the USFWS, a report will be submitted to the USFWS. An electronic copy of the report will be provided to the Client. HELIX is required by its recovery permit to provide the USFWS with a 15-day notice prior to beginning surveys.

ASSUMPTIONS AND ADDITIONAL LIMITATIONS ON SCOPE OF WORK

The following assumptions and limitations are a material component of this agreement.

- This scope of services does not include construction monitoring for biological, archaeological, or paleontological resources.
- This scope of services does not include post-construction monitoring related to habitat revegetation and/or habitat restoration.

SCOPE OF WORK

- Task 3.1 Worker's Education Awareness Program Brochure and Training. HELIX will prepare a Worker's Education Awareness Program (WEAP) brochure that will contain biological information and photographs of the sensitive biological resources found on the study area as recommended by proposed Mitigation Measures (MM) BIO-1 and BIO-3 of the project Biological Technical Report (BTR) prepared by HELIX on February 28, 2018. The brochure will also contain a brief summary of the general restrictions during construction, requirements prior to commencing and at the conclusion of work each day, and contact information for the for the project manager and lead biologist from HELIX. HELIX will also attend a single pre-construction meeting for the project and will administer the WEAP training for project personnel. HELIX will provide a sign-in sheet to document personnel attendance. If more than one training of personnel is required, additional authorization would be needed.
- Task 3.2 Least Bell's Vireo Surveys. If construction activities are proposed during the nesting season (March 15 through August 31) for least Bell's vireo (*Vireo bellii pusillus*), HELIX will conduct surveys for the federally and state listed endangered species within suitable habitat on the study area in compliance with MM BIO-1 of the project BTR. The surveys will follow the most current US Fish and Wildlife (USFWS) protocol that requires eight surveys at least ten days apart between April 10 and July 31. As required under the USFWS protocol for conducting vireo surveys, HELIX will submit a written report to the USFWS after completing the final survey. An electronic copy of the report will be provided to the Client. The cost for these surveys takes into consideration that five of the eight surveys will be conducted on the same dates as the southwestern willow flycatcher surveys included as Task 3.3 below.
- Task 3.3 Southwestern Willow Flycatcher Surveys. If construction activities are proposed during the nesting season (May 1 through August 31) for southwestern willow flycatcher (*Empidonax traillii extimus*), HELIX will conduct surveys for the federally and state listed endangered species within the appropriate habitat on the study area in compliance with MM BIO-1 of the project BTR. The surveys will follow the most current USFWS protocol that requires five surveys be conducted between May 15 and July 17. According to this protocol, the first survey is to be conducted between May 15 and May 31, the second between June 1 and June 24, and the third through fifth surveys between June 25 and July 17, with a minimum of five days separating each survey. As required under HELIX's 10(a)(1)(A) recovery permit (TE778195) with the USFWS, a report will be submitted to the USFWS. An electronic copy of the report will be provided to the Client. HELIX is required by its recovery permit to provide the USFWS with a 15-day notice prior to beginning surveys.

ASSUMPTIONS AND ADDITIONAL LIMITATIONS ON SCOPE OF WORK

The following assumptions and limitations are a material component of this agreement.

- This scope of services does not include construction monitoring for biological, archaeological, or paleontological resources.
- This scope of services does not include post-construction monitoring related to habitat revegetation and/or habitat restoration.

- This scope of services assumes that avoidance/minimization measures proposed in the project Biological Technical Report are accepted by the wildlife agencies. If additional avoidance/minimization measures are required by the wildlife agencies, HELIX may require authorization from Client to implement the measures.

EXHIBIT "D"

AMENDMENT NO. 2 TO THE PROFESSIONAL SERVICES AGREEMENT BETWEEN
MOULTON NIGUEL WATER DISTRICT AND GHD, INC.
MNWD PROJECT: POTABLE, RECYCLED, AND SEWER PIPELINE
REPLACEMENTS AT I-5 AND OSO CREEK
CONTRACT NOS. 2017.009, 2017.014, 2017.018

This Amendment No. 2 (this "Amendment") is entered into and effective as of July 12, 2018, amending the Professional Services Agreement for the Potable, Recycled, and Sewer Pipeline Replacements at I-5 and Oso Creek, dated October 13, 2017 (the "Agreement") by and between Moulton Niguel Water District ("District") and GHD, Inc. ("Consultant") (collectively, the "Parties"). Any capitalized terms used but not defined herein shall have the meaning assigned to them in the Agreement.

RECITALS

A. WHEREAS, on October 13, 2017, the Parties entered into the Agreement for certain geotechnical professional services for the potable, recycled, and sewer pipeline replacements at I-5 and Oso Creek for a total not-to-exceed amount of \$472,033; and

B. WHEREAS, on June 8, 2018 the Parties executed Amendment No. 1 to amend the scope of work, for additional environmental survey work, and increase the not-to-exceed amount by \$18,695; and

C. WHEREAS, the Parties have negotiated and agreed to additional design services and related fees schedule, which is attached hereto and incorporated herein by this reference as Exhibit A to this Amendment.

NOW, THEREFORE, in consideration of these recitals and the mutual covenants contained herein, District and Consultant agree as follows:

1. The Agreement is hereby revised to include the Services described in the Scope of services attached hereto as Exhibit A, (3 pages) to this Amendment.

2. All payments for services associated with this Amendment shall not exceed the amount of Eighteen Thousand, Sixty-Six Dollars (\$18,066).

3. The Parties agree that the total Agreement amount, including this Amendment, shall not exceed Five Hundred Eight Thousand, Seven Hundred Ninety-Four Dollars (\$508,794).


3. All other provisions of the Agreement will remain in full force and effect. In the event of any conflict or inconsistency between the Agreement and previous amendments and this Amendment, the terms of this Amendment shall control.

4. All requisite insurance policies to be maintained by Consultant pursuant to the Agreement, as may have been amended from time to time, will include coverage for this Amendment.

#5.

5. The individuals executing this Amendment and the instruments referenced in it on behalf of Consultant each represent and warrant that they have the legal power, right and actual authority to bind Consultant to the terms and conditions of this Amendment.

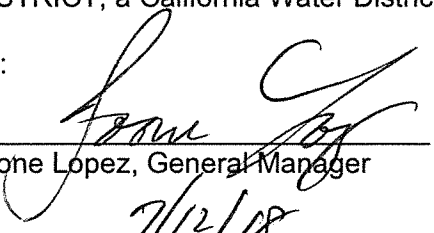
GHD, INC.

By: 
(sign here)

GREG WATANABE VICE PRESIDENT
(print name/title)

7/11/18
Date

MOULTON NIGUEL WATER DISTRICT, a California Water District

By: 

Joone Lopez, General Manager

7/12/18
Date

EXHIBIT A
Scope of Services

Optional Task OPT-1 – Geotechnical Baseline Report

Using the information provided by the District for the RFP and that gathered during the geotechnical investigation, GHD will prepare a Geotechnical Baseline Report (GBR) in accordance with the ASCE (2007) guidelines. The focus of the GBR would be a baseline for potential changed conditions claims. The GBR will include:

1. Geotechnical and geologic characteristics of the site
2. Field and laboratory test results
3. Geotechnical parameters (cohesion, friction angle, earth pressure coefficients, active, at-rest, and passive resistance, groundwater levels) for the stratigraphy encountered
4. Seismic study and potential impacts
5. Ground loss and settlement analysis
6. Stability excavation areas
7. Recommendations for geotechnical design considerations
8. Trenchless construction considerations
9. Settlement monitoring program and protection of existing facilities along the pipeline alignment
10. Dewatering
11. Shoring
12. Grout
13. Backfill and compaction of shafts

The GBR would be issued about four weeks following the final geotechnical investigation report.



FEE PROPOSAL
 Moulton Niguel Water District
 Potable, Recycled, and Sewer Pipeline Replacements
 August 24, 2017

Task Description	Hourly Rates										QA/QC	Principal-in-Charge	Sr. Project Manager	Sr. Corrosion Engineer	Sr. Geotechnical Engineer	Sr. Tunnel Engineer	Hydraulic Modeling / Pipelines / Cost Estimator / Construct. Reviewer	Engineer-Traffic	Engineer-Geotechnical	CAD Designer	Project Assistant	GHD Hours	Subconsultant Hours	GHD Labor Costs	Subconsultants Including Markup	Other Direct Costs	Total				
	\$210	\$190	\$225	\$205	\$210	\$170	\$181	\$145	\$140	\$120																		\$85			
Task 7 – Final Design & Contract Documents																															
Task 7.1 - First (75%) Design Submittal	4	-	12	6	-	20	16	4	32	12	12	60	4	170	-	-	-	-	-	-	-	-	-	-	-	-	\$ 25,974	\$ 1,520	\$ 27,494		
Task 7.2 - Second (100%) Design Submittal	6	-	12	8	-	20	16	6	32	16	54	4	174	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 27,046	\$ 1,544	\$ 28,590		
Task 7.3 - Final M&P and Specifications Submittal	4	-	12	4	-	8	10	2	16	8	18	4	86	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 13,702	\$ 1,516	\$ 15,218		
Subtotal – Task 7 – Final Design & Contract Documents	14	0%	36	18	4%	48	42	12	80	36	132	12	430	-	-	-	-	-	-	-	-	-	-	-	-	\$ 58,722	\$ 4,580	\$ 71,302			
Task 8 – Construction Cost Estimate																															
Task 8.1 - Construction Cost Estimate	-	-	4	-	-	-	-	6	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 1,846	\$ 60	\$ 1,906	
Subtotal – Task 8 – Construction Cost Estimate	0%	0%	4	0%	0%	0%	6	0%	0%	0%	0%	0%	10	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	\$ 1,846	\$ 60	\$ 1,906		
Task 9 – Bid & Construction Phase Support Services																															
Task 9.1 - Conduct Onsite Pre-Bid Meeting (Meeting #9)	-	-	3	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 570	\$ 48	\$ 618	
Task 9.2 - Respond to Inquiries During Bidding (15 hours)	-	-	5	-	-	-	10	-	-	-	-	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 2,650	\$ 90	\$ 2,740	
Task 9.3 - Prepare Bid Addenda (2)	-	-	3	-	-	-	6	-	-	-	-	16	2	27	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 3,680	\$ 182	\$ 3,862	
Task 9.4 - Attend Pre-Construction Meeting (Meeting #10)	-	-	3	-	-	-	3	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 1,080	\$ 66	\$ 1,146	
Task 9.5 - Prepare Conformal Plans and Specs (Fee in Optional Services)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Task 9.6 - Respond to Construction RFIs (15)	-	-	10	-	-	-	28	-	-	-	-	-	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 6,660	\$ 228	\$ 6,888	
Task 9.7 - Respond to Shop Drawings (40)	-	-	28	-	-	-	46	-	-	-	-	-	104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 19,440	\$ 624	\$ 20,064	
Task 9.8 - Attend Construction Site Visits (6)	-	-	12	-	-	-	8	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 3,960	\$ 600	\$ 4,560	
Task 9.9 - Attend Bi-weekly Construction Progress Meetings (Fee in Optional Services)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Task 9.10 - Prepare Record Drawings (18 Sheets)	-	-	4	-	-	-	6	-	-	-	-	15	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 3,790	\$ 156	\$ 3,946	
Subtotal – Task 9 – Bid & Construction Phase Support Services	1	0%	68	0%	0%	38	99	0%	0%	0%	0%	31	239	-	-	-	-	-	-	-	-	-	-	-	-	\$ 41,830	\$ 1,974	\$ 43,804			
Task 10 – Optional Additional Final Design Services																															
10.1 Additional Stakeholder Coordination and Permit Acquisition Support	-	-	12	-	-	-	24	-	-	-	-	40	16	92	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 12,520	\$ 552	\$ 13,072	
10.2 Additional Geotechnical Exploration	-	-	-	-	-	8	-	-	-	-	-	20	1	29	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 4,625	\$ 3,375	\$ 13,750	
10.3 Additional CEQA Documentation (Fee Included in Tasks Above)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.4 Additional Easement and Encroachment Permit Acquisition Support	-	-	3	-	-	-	6	-	-	-	-	3	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 1,845	\$ 72	\$ 1,917	
10.5 Additional Preparation of Final Design and Contract Documents	4	-	16	8	-	20	18	8	24	12	40	4	154	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 24,688	\$ 924	\$ 25,612		
10.6 Additional Construction Cost Estimate for Final Design	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 362	\$ 12	\$ 374	
10.7 Additional Bid and Construction Phase Support Services	-	-	24	-	-	16	48	-	-	-	-	16	104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 18,000	\$ 624	\$ 18,624	
Subtotal – Task 10 – Optional Additional Final Design Services	4	0%	55	8	2%	36	96	10	44	12	96	24	393	-	-	-	-	-	-	-	-	-	-	-	-	\$ 62,040	\$ 5,559	\$ 73,549			
OPTIONAL SERVICES (NOT INCLUDED IN TOTAL FEE)																															
Task 9.5 - Prepare Conformal Plans and Specs	-	1	4	-	-	-	8	-	-	-	-	20	2	35	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 4,915	\$ 210	\$ 5,125	
Task 9.9 - Attend Bi-weekly Construction Progress Meetings (16)	-	3	45	-	-	-	25	23	-	-	-	50	3	101	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 9,225	\$ 768	\$ 9,993	
Task OPT-1 - Geotechnical Baseline Report	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal – OPTIONAL SERVICES (NOT INCLUDED IN TOTAL FEE)	-	4	49	-	2%	25	23	8	50	-	20	5	184	-	-	-	-	-	-	-	-	-	-	-	-	\$ 31,500	\$ 1,584	\$ 33,184			
Total (No-to-Exceed)	32	5	325	26	2%	22	174	347	32	198	94	369	87	1,711	894	-	-	-	-	-	-	-	-	-	-	\$ 274,822	\$ 176,035	\$ 472,033			



Fee Schedule

For services by GHD, Inc.

Effective through June 30, 2018

Hourly Rates*

Principal-In-Charge / QA/QC	\$205 - 245
Senior Project Manager	\$165 - 226
Project Manager	\$175 - 223
Senior Engineer	\$160 - 220
Project Engineer	\$150 - 180
Staff Engineer	\$115 - 155
CAD Designer	\$ 80 - 165
Drafter	\$ 75 - 120
Project Assistant	\$ 70 - 125

Employee time will be billed in accordance with the fees listed above. Standard computer and technology costs are incorporated into these hourly rates, as well as direct labor, overhead, and fringe benefits. These rates are subject to change on a semi-annual basis. Professional employees will not be charged out at premium charge rates for overtime work.

Expenses and other similar project related costs are billed out at cost plus 15%. The cost of office consumables is billed on the basis of employee hours dedicated to the project at a rate of \$6.00/hour. Mileage will be billed at \$.535 per mile (or current IRS allowable rate) and parking expenses incurred by office employees are charged at cost. The services of outside consultants will be charged at cost plus 15%.

(*) These rates do not apply to forensic-related services, or to work for which Prevailing Wage obligations exist. It is the responsibility of the client to notify GHD Inc. in writing if Prevailing Wage obligations are applicable, in which case the fees will be adjusted proportionate to the increase in labor costs.

EXHIBIT "E"

**AMENDMENT NO. 03 TO THE PROFESSIONAL SERVICE AGREEMENT
BETWEEN MOULTON NIGUEL WATER DISTRICT AND
GHD INC.
MNWD PROJECT: POTABLE, RECYCLED, AND SEWER PIPELINE
REPLACEMENT AT I-5 AND OSO
CONTRACT NOS. 2017.009, 2017.014, 2017.018**

This Amendment No. 03 (this "Amendment") is entered into and effective as of May 13, 2019, amending the Professional Service Agreement dated October 13, 2017 (the "Agreement"), by and between Moulton Niguel Water District ("MNWD"), and GHD Inc. ("Consultant") (collectively, the "Parties"). Any capitalized terms used but not defined herein shall have the meaning assigned to them in the Agreement.

RECITALS

A. WHEREAS, on October 13, 2017, the Parties entered into the Agreement for professional services through April 30, 2019 for a total not-to-exceed amount of \$472,033; and

B. WHEREAS, on June 8, 2018 the Parties executed Amendment No. 1 to amend the scope of work and increase the not-to-exceed amount by \$18,695; and

C. WHEREAS, on July 12, 2018 the Parties executed Amendment No. 2 to amend the scope of work and increase the not-to-exceed amount by \$18,066; and

D. WHEREAS, the Parties now desire to extend the Agreement term through April 29, 2020.

NOW, THEREFORE, in consideration of these recitals and the mutual covenants contained herein, MNWD and Consultant agree as follows:

1. The term of the Agreement is hereby extended through April 29, 2020
2. The Parties agree that the total Agreement amount will remain the same and not exceed \$508,794.
3. All requisite insurance policies to be maintained by the Consultant pursuant to the Agreement will include coverage for this Amendment.
4. All other provisions of the Agreement will remain in full force and effect. In the event of any conflict or inconsistency between the Agreement and this Amendment, the terms of this Amendment shall control.
5. The individuals executing this Amendment and the instruments referenced in it on behalf of the Consultant each represent and warrant that they have the legal power, right and actual authority to bind Consultant to the terms and conditions of this Amendment.

-Signatures on following page-

#5.

MOULTON NIGUEL WATER DISTRICT:

GHD INC.:

By: 

By: 

(Authorized Representative of
Consultant)

Printed Name: JOONE LOPEZ

Printed Name: GREG WATANABE

Title: GENERAL MANAGER

Title: VICE PRESIDENT

Dated: 5/13/19

Dated: 5/9/2019

EXHIBIT "F"

**AMENDMENT NO. 04 TO THE PROFESSIONAL SERVICE AGREEMENT
BETWEEN MOULTON NIGUEL WATER DISTRICT AND
GHD INC.
MNWD PROJECT: POTABLE, RECYCLED, AND SEWER PIPELINE
REPLACEMENT AT I-5 AND OSO
CONTRACT NOS. 2017.009, 2017.014, 2017.018**

This Amendment No. 04 (this "Amendment") is entered into and effective as of _____, 2019, amending the Professional Service Agreement dated October 13, 2017 (the "Agreement"), by and between Moulton Niguel Water District ("MNWD"), and GHD Inc. ("Consultant") (collectively, the "Parties"). Any capitalized terms used but not defined herein shall have the meaning assigned to them in the Agreement.

RECITALS

A. WHEREAS, on October 13, 2017, the Parties entered into the Agreement for professional services through April 30, 2019 for a total not-to-exceed amount of \$472,033; and

B. WHEREAS, on June 8, 2018 the Parties executed Amendment No. 1 to amend the Scope of Services and increase the not-to-exceed amount by \$18,695; and

C. WHEREAS, on July 12, 2018 the Parties executed Amendment No. 2 to amend the Scope of Services and increase the not-to-exceed amount by \$18,066; and

D. WHEREAS, on May 13, 2019 the Parties executed Amendment No. 3 to extend the term of the Agreement through April 29, 2020; and

E. WHEREAS, the Parties desire to extend Agreement term until August 31, 2020

F. WHEREAS, the Parties desire to amend the Scope of Services to be performed by consultant under this Agreement and have negotiated and agreed to the Supplemental Scope of Services, attached hereto and incorporated herein by this reference as Exhibit "A".

NOW, THEREFORE, in consideration of these recitals and the mutual covenants contained herein, MNWD and Consultant agree as follows:

1. The term of the Agreement is hear by extended through August 31, 2020
2. The Services to be provided by Consultant shall be revised to include the Services set forth in Exhibit "A".
3. All payments for services associated with this Amendment shall not exceed \$58,162.75.
4. The Parties agree that the total Agreement amount, including this Amendment, shall not exceed \$566,956.75.
5. All requisite insurance policies to be maintained by the Consultant pursuant to the Agreement will include coverage for this Amendment.

#5.

6. All other provisions of the Agreement will remain in full force and effect. In the event of any conflict or inconsistency between the Agreement and this Amendment, the terms of this Amendment shall control.

7. The individuals executing this Amendment and the instruments referenced in it on behalf of the Consultant each represent and warrant that they have the legal power, right and actual authority to bind Consultant to the terms and conditions of this Amendment.

MOULTON NIGUEL WATER DISTRICT:

GHD INC.:

By: _____

By: _____

(Authorized Representative of
Consultant)

Printed Name: _____

Printed Name: _____

Title: _____

Title: _____

Dated: _____

Dated: _____



Exhibit "A"
Supplemental Scope of Services

November 19, 2019

GHD Project No. 11146403

Todd Dmytryshyn, P.E.
Principal Engineer
Moulton Niguel Water District (MNWD)
26161 Gordon Road
Laguna Hills, CA 92653

**SUBJECT: Potable and Recycled Pipeline Replacements at I-5 and Oso Creek Project
Additional Funds Request to Task 9 Bid & Construction Phase Services**

Dear Todd,

As discussed, please find herein our additional funds request to Task 9 Bid & Construction Phase Services of our Project. We request your approval for an additional budget of \$58,162.75 to cover both our additional effort required on Task 9 that was significantly greater than initially envisioned plus our estimate to continue construction support for the remainder of construction.

The significant amount of construction support performed are due to additional reviews and responses to the contractor's RFI's, submittals, and change order requests; additional coordination, reviews, and responses for various Caltrans permit comments; attendance to teleconference calls and meetings with Caltrans, MNWD, and the contractor; and required design revisions to as-bid drawings and details.

Our estimate to continue construction support for the remainder of construction anticipates attending up to four (4) teleconference calls and two (2) meetings, reviewing up to six (6) RFI's and four (4) submittals, and providing responses to two (2) rounds of additional Caltrans comments.

We have accounted for the remaining funds in the original Task 9 Construction Phase budget, as well as remaining funds in Task 10 Optional Additional Final Design Services and in Amendment No. 1 (Task 11 Additional Biological Surveys and Awareness Training) to serve as credits back to MNWD to determine the net additional funds required to Task 9. Please find the attached table with the breakdown of the net additional funds total for your approval.

We appreciate the opportunity to continue to serve MNWD. If you have any questions, please feel free to contact my anytime at (949) 585-5203 and ulysses.fandino@ghd.com.

Sincerely,
GHD Inc.

Ulysses Fandino, P.E.
Project Manager

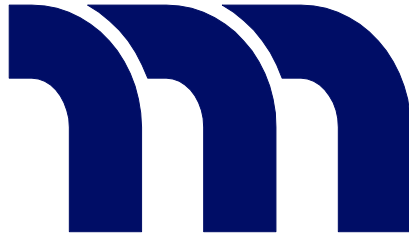
Moulton Niguel Water District

Potable and Recycled Pipeline Replacements at I-5 and Oso Creek



ADDITIONAL BUDGET TABLE FOR TASK 9 BID & CONSTRUCTION PHASE SERVICES November 19, 2019

Task Description	QA/QC	Project Manager	Sr. Tunnel Engineer	Sr. Tunnel Engineer	Pipelines / Hydraulic Modeling	Structural Engineer	Staff Engineer-Pipeline	CAD Designer	CAD Designer	Project Assistant	GHD Hours	GHD Labor Costs	Other Direct Costs	Total
Hourly Rates	\$210	\$190	\$210	\$190	\$170	\$135	\$115	\$120	\$115	\$85				
Additional Costs + Estimate for Remaining Construction														
Attend Pre-Construction Meeting (9/9), Review Agenda , Review Meeting Minutes	-	3	-	3	-	-	-	-	-	-	6	\$ 1,140.00	\$ 226.00	\$ 1,366.00
Reviews and Responses to Contractor's RFIs, Submittals, and RFCOs	-	39.75	-	63	-	-	-	-	3.5	-	106.25	\$ 19,925.00	\$ 637.50	\$ 20,562.50
Caltrans Permits Reviews and Responses	-	39	-	35.5	-	5	-	-	-	-	79.5	\$ 14,830.00	\$ 477.00	\$ 15,307.00
Revised Bid Drawings and Details	-	31.75	-	4	-	-	-	-	15.75	-	51.5	\$ 8,603.75	\$ 309.00	\$ 8,912.75
Meetings and Teleconference Calls	-	13	-	17	-	-	-	-	-	-	30	\$ 5,700.00	\$ 400.00	\$ 6,100.00
Estimated Budget for Remaining Construction	-	48	-	48	-	2	-	-	4	-	102	\$ 18,970.00	\$ 612.00	\$ 19,582.00
Revised Attend Construction Site Visits (6)	-	12	-	-	-	-	-	-	-	-	12	\$ 2,280.00	\$ 252.00	\$ 2,532.00
Revised Prepare Record Drawings (10 Sheets)	1	4	-	-	-	-	-	-	8	-	13	\$ 1,890.00	\$ 78.00	\$ 1,968.00
(A) Subtotal Actual Costs + Estimate for Remaining Construction	1	191	-	170.5	-	7	-	-	31.25	-	400.25	\$ 73,338.75	\$ 2,991.50	\$ 76,330.25
Original Construction Phase Task Budgets														
Attend Pre-Construction Meeting	-	3	-	-	3	-	-	-	-	-	6	\$ 1,080.00	\$ 66.00	\$ 1,146.00
Attend Construction Site Visits (6)	-	12	8	-	-	-	-	-	-	-	20	\$ 3,960.00	\$ 600.00	\$ 4,560.00
Prepare Record Drawings (18 Sheets)	1	4	-	-	6	-	-	15	-	-	26	\$ 3,790.00	\$ 156.00	\$ 3,946.00
(B) Subtotal Original Estimate	1	19	8	-	9	-	-	15	-	-	52	\$ 8,830.00	\$ 822.00	\$ 9,652.00
Remaining Budgets from Other Tasks														
Remaining Task 10 Budget														\$ 5,415.50
Unused Amendment No. 1 Budget WEAP Training														\$ 3,100.00
(C) Subtotal Remaining Budgets and Contingency														\$ 8,515.50
Additional Budget Request Total = (A) minus (B+C)														\$ 58,162.75



moulton niguel water district

STAFF REPORT

TO: Board of Directors **MEETING DATE:** December 18, 2019

FROM: Rod Woods, Director of Engineering
David Larsen, Engineering Manager

SUBJECT: Amendment No. 2 for the Regional Lift Station Enhancements

SUMMARY:

Issue: Board action is required to execute Amendment No. 2 to Task Order No. 3 of the As-Needed Engineering Services Agreement with Tetra Tech, Inc. for the Regional Lift Station Enhancements, Project No. 2017.022.

Recommendation: It is recommended that the Board of Directors approve Amendment No. 2 to Task Order No. 3 of the As-Needed Engineering Services Agreement with Tetra Tech in the amount of \$63,800 for a new total not-to-exceed amount of \$262,600; authorize the General Manager or Assistant General Manager to execute the amendment; and to approve amendments up to 10% of the total task order value.

Fiscal Impact: Project No. 2017.022 is budgeted in Fund 14, Planning and Construction with a with a current project budget of \$3,500,000; the overall Fiscal Year 2019-20 CIP budget for Fund 14 is \$21,413,204.

Reviewed by Committee: Yes, recommended for approval at the Technical Committee Meeting on December 2, 2019.

Reviewed by Legal: Yes

BACKGROUND:

The Regional Lift Station is located along Alicia Parkway adjacent to the Laguna Niguel Regional Park and pumps wastewater to the Regional Treatment Plant. Over half of all wastewater generated within the District is pumped through the Regional Lift Station.

In September 2017, Staff identified enhancements at the Regional Lift Station that will improve the operational reliability of this critical facility. The proposed enhancements include the addition of a standby diesel engine-driven bypass pumping system and replacement of Pump No. 5 to better manage low-flow periods. Staff determined that a

#6.

Amendment No. 2 for the Regional Lift Station Enhancements

December 18, 2019

Page 2 of 3

preliminary design effort would be necessary to better define the design criteria for the project before proceeding with final design and preparation of construction documents.

At the time that the proposed enhancements at the Regional Lift Station were identified, Tetra Tech was already performing the design of the Regional Lift Station Force Main Replacement Project. As a part of that design, Tetra Tech performed a detailed analysis of the flows at the Regional Lift Station and evaluated force main piping connections within the lift station site. Through this effort, Tetra Tech gained significant knowledge of the operational and physical constraints of the lift station. This knowledge was essential to performing the preliminary design of the proposed enhancements at the Regional Lift Station. Accordingly, Staff selected Tetra Tech to perform this work under Task Order No. 3 of the As-Needed Engineering Services Agreement, for a not-to-exceed total of \$31,600.

During the preliminary design efforts, it was determined that rehabilitation of the existing wet well and the addition of an overflow basin should be added to the scope of the project. Staff requested a proposal from Tetra Tech to perform the final design services, prepare construction documents and provide engineering services during construction. The fee for these services was \$167,200, which resulted in a total not-to-exceed amount of \$198,800. The Board approved this amendment in March 2018.

DISCUSSION:

As the final design of the project progressed, conflicts with existing infrastructure and the need for additional detailed design items were identified by both staff and Tetra Tech. In summary, these items include:

- Extensive coordination with the proposed diesel bypass pump manufacturer to refine the final pump selection and required operational controls due to an extremely wide range of hydraulic conditions
- Wet well capacity and pipeline alignment optimizations due to site constraints
- Addition of detailed bypassing and wet well construction sequencing
- Details to avoid conflicts with existing structural framing at Pump No. 5
- SCADA integration and control strategy development for the integration of the new bypass pump system into the existing control system
- Development of comprehensive and integrated operational protocols for the entire facility, including the new bypass pumping system

As a result of the additional identified items, it is anticipated that 12 additional construction drawings will be added to the final construction documents.

Staff requested a proposal from Tetra Tech to incorporate these items into the final design and construction documents. The proposed fee for the additional design effort is \$63,800, for a new total not-to-exceed amount of \$262,600. Staff performed a thorough review of Tetra Tech's proposal and determined that the level of effort is necessary and appropriate. This amendment will be performed on a time and materials not to exceed basis.

Amendment No. 2 for the Regional Lift Station Enhancements

December 18, 2019

Page 3 of 3

As such, Staff is recommending the approval of Amendment No. 2 to Task Order No. 3 of the As-needed Engineering Services Agreement with Tetra Tech.

SUMMARY OF PROJECT BUDGET:

	Proposed FY 18-19 Project Budget*	Proposed / Approved Contract	Proposed / Authorized Contingency	Total Proposed / Authorized Amount
Project Items				
Engineering	\$218,680*	\$198,800	\$19,880	\$218,680
Additional Engineering		\$63,800	\$6,380	\$70,180
Construction	\$3,000,000	\$3,000,000	\$0	\$3,000,000
Inspection, Permits, Other	\$281,320	\$211,140	\$0	\$211,140
Totals	\$3,500,000	\$3,473,740	\$26,260	\$3,500,000

*138,318 has been expended to date

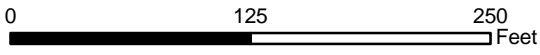
Currently Proposed Amount

Attachments:

1. Exhibit A – Location Map
2. Exhibit B – As-Needed Engineering Services Agreement
3. Exhibit C – Task Order No. 3
4. Exhibit D – Amendment No. 1 to Task Order No. 3
5. Exhibit E – Amendment No. 2 to Task Order No. 3



Path: G:\GIS\Projects\2017\Engineering Exhibits\Maps\2017\022\Regional\LS.mxd



Scale = 1:1,200

EXHIBIT "A"
Regional Lift Station
Enhancements
Contract No. 2017.022

**AGREEMENT FOR ENGINEERING SERVICES BETWEEN
MOULTON NIGUEL WATER DISTRICT AND
TETRA TECH, INC.
MNWD PROJECT: AS-NEEDED ENGINEERING SERVICES FOR CAPITAL
IMPROVEMENT PROGRAM IMPLEMENTATION
CONTRACT NO. OM16-17.051d**

THIS AGREEMENT (the "Agreement") is executed and dated as of May 2, 2017 ("Execution Date"), by and between Tetra Tech, Inc., hereinafter referred to as the "ENGINEER" and Moulton Niguel Water District hereinafter referred to as "MNWD," and provides for the furnishing of engineering services to MNWD by ENGINEER. MNWD and ENGINEER may sometimes be referred to in this Agreement individually as "party" and together as "parties."

In consideration of the mutual covenants contained herein, the parties agree as follows:

AGREEMENT

SECTION I – PURPOSE

Section 1.1 ENGINEER shall provide as-needed engineering services to MNWD in connection with the implementation of capital improvement projects (the "Services") on a "Task Order" basis, as such term is defined and applied under this Agreement. This Agreement, including all attached Exhibits as well as each Task Order issued pursuant to the terms of Section III, form the Agreement between the parties ("Agreement").

SECTION II – SCOPE OF SERVICES AND PERFORMANCE

Section 2.1 ENGINEER shall perform the Services in accordance with the Scope of Services under each Task Order, any requirements set forth in a Task Order (as defined in Section III), the terms of this Agreement, and as directed by MNWD. MNWD reserves the right to develop additional Services and related requirements as it deems appropriate for each Task Order to meet the needs and objectives of MNWD and this Agreement, subject to terms for changes in scope under Section 5.2 if applicable.

Section 2.2 ENGINEER acknowledges and agrees that MNWD does not guarantee any minimum or maximum amount of Services and MNWD may use other Engineers or Consultants for the Services in its sole discretion.

Section 2.3 ENGINEER shall provide all labor, materials, tools, equipment, supplies, utilities and transportation required to perform the Services, subject to compliance with the Agreement requirements, and complete all Services in a thorough, professional manner in accordance with generally accepted professional engineering practices and principles, and to the satisfaction of MNWD. ENGINEER shall have the sole and absolute discretion in determining the methods, details and means of performing the Services, and MNWD shall not have any right to direct the methods, details and means of the Services, provided that ENGINEER must receive prior written approval from MNWD before using any subconsultants in accordance with Section 2.5 herein. In performing the Services under this Agreement, ENGINEER shall observe and abide by the terms and conditions of all applicable laws, regulations, ordinances, or other rules of the United States, of the State of California, or any political subdivisions thereof, or of any other duly constituted public authority or agency including but not limited to MNWD.

Section 2.4 ENGINEER'S civil engineer, duly licensed in the State of California, who shall be the Principal in Charge of work, is Tom Epperson, P.E. Without prior written approval of

#6.

MNWD_Tetra Tech PSA - OM16-17.051d On-Call Engineering Services (April 2017)

MNWD, ENGINEER will not make any changes to ENGINEER'S Principal in Charge, in subconsultants, in outside labor arrangements, or associations or joint ventures which are required to accomplish any part of the Services.

Section 2.5 If ENGINEER intends to subcontract certain Services, separate subcontracts may be entered into between ENGINEER and the subconsultants listed in Exhibit A hereto, which is incorporated herein, or as may be appended to any individual Task Order. Any additional subconsultants ENGINEER proposes to use for any Task Order are subject to prior written approval by MNWD and set forth in the Task Order. ENGINEER is as responsible to MNWD for the acts and omissions of its subconsultants as it is for persons directly employed by ENGINEER. Nothing contained in this Agreement creates any contractual relationship between any subconsultant and MNWD. ENGINEER shall not allow any subconsultant to commence Services under any subcontract until all insurance required of ENGINEER has been obtained for the subconsultant. ENGINEER shall require and ensure that its subconsultants maintain the same level of insurance coverage as required of ENGINEER in Section X of this Agreement.

SECTION III – TASK ORDERS

Section 3.1 Each project and the related Services contemplated under this Agreement will be facilitated through written task orders (each a "Task Order"). The form of Task Order is attached hereto as Exhibit B and incorporated herein.

Section 3.2 Each Task Order shall be no greater than a maximum not-to-exceed amount of one-hundred fifty thousand dollars (\$150,000), inclusive of any addenda thereto, with the sum of all Task Orders including addenda thereto not-to-exceed the total Agreement amount under Section IV.

Section 3.3 Each Task Order shall contain the Scope of Services specific to the project and related Services under consideration. In addition, each Task Order shall contain the fees, labor hours, and team proposed for the Task Order, and any approved subconsultants not otherwise listed in Exhibit A.

SECTION IV – ENGINEERING FEES

Section 4.1 In consideration for providing the Services pursuant to this Agreement, MNWD agrees to compensate ENGINEER for Services under any Task Order on a time and materials basis at the rates and amounts in the Fee Schedule attached hereto as Exhibit C and incorporated herein. Total payments under this Agreement for all Task Orders collectively shall not exceed One Million Dollars (\$ 1,000,000). This maximum amount is inclusive of 'labor costs' and 'reasonable direct costs' as defined herein below in Section 4.3 and 4.4.

Section 4.2 The Fee Schedule sets forth the current billing rates of ENGINEER. The Fee Schedule shall be in effect upon execution of this Agreement with a maximum increase of 3% for each year during the term of this Agreement as provided for under Section VII.

Section 4.3 'Labor costs' shall be the total number of hours worked on the project Services by each employee of the ENGINEER multiplied by the applicable hourly billing rate based on the Fee Schedule set forth in Section 4.2, and as such Fee Schedule may be amended upon MNWD's exercise of the option for term extension(s) under Section VII.

Section 4.4 'Reasonable direct costs' shall include those costs as described in each Task Order.

Section 4.5 The mark-up percentage charged to MNWD for Services performed by ENGINEER'S subconsultants under this Agreement pursuant to any Task Order shall not exceed 5% of the amount billed to ENGINEER by its subconsultants.

Section 4.6 Monthly payments under a Task Order will be made based on submittal of invoices by ENGINEER. Invoices will include the date or period of Services, the number of hours worked by various labor categories, the hourly billing rate per individual, a complete description of the Services performed, the total amount due and, when requested by MNWD, any support documentation sufficient to validate the charges for each invoice item. Only one bill per month shall be submitted by ENGINEER, showing amounts due for ENGINEER and each subconsultant utilized during the monthly billing period. Incomplete invoices will be returned unpaid to ENGINEER. Each Task Order shall be billed on a separate invoice.

SECTION V - TASK ORDER COMPLETION

Section 5.1 ENGINEER shall not begin work on any Services pursuant to this Agreement until receipt of MNWD'S issuance and execution of a Task Order and notice to proceed, and ENGINEER'S execution of the Task Order. Upon receipt of such notice, ENGINEER shall immediately commence the Services described in the Task Order. The Services pursuant to each Task Order shall be completed in an expeditious manner from the date the Task Order and written notice to proceed are issued to ENGINEER, and in any event no later than the completion date listed on the Task Order. Time is of the essence in the performance and completion of the Services. In the event the time for completing the Services is projected to be exceeded due to circumstances beyond the control of ENGINEER, ENGINEER shall have an additional amount of time to be agreed upon in writing between the parties pursuant to Section 5.2, Task Order Amendment.

Section 5.2 Upon MNWD's request for additional or changed Services, ENGINEER shall provide a cost estimate and written description of the additional or changed Services. Prior to any such addition, changes, or deletion to the Scope of Services, MNWD and ENGINEER shall negotiate an adjustment of the compensation and completion date and shall execute a written addendum to the Task Order. Upon execution of each addendum, (i) the Scope of Services shall thereafter be as described in the Task Order, respectively, as modified by the addendum and any previously executed addendum; and (ii) the time for completing the Services shall be as set forth in the addendum. Following execution of any amendment, all terms and provisions of the Agreement, except as expressly modified by such amendment, shall remain in full force and effect. MNWD will not be required to pay for any additional or changed work rendered in advance of the execution of an amendment covering the additional or changed work.

Section 5.3 MNWD may require ENGINEER's assistance on an emergency basis. Emergency Services shall be performed only after written direction is received from MNWD. A Task Order will be issued to ratify the emergency Services

SECTION VI - DOCUMENTATION AND OWNERSHIP

Section 6.1 MNWD shall make available to ENGINEER at no cost all technical data in MNWD's possession, including maps, past reports, prior studies, prior plan operating data, and other information reasonably required by ENGINEER and relating to the Services to be performed under this Agreement.

#6.

MNWD_Tetra Tech PSA - OM16-17.051d On-Call Engineering Services (April 2017)

Section 6.2 ENGINEER will furnish to MNWD the agreed upon number of reports and supporting documents as specified in each Task Order. These instruments of service are furnished for MNWD's use in connection with the project Services provided for in this Agreement and shall become MNWD's property upon receipt.

Section 6.3 All original drawings and other documents, including detailed calculations developed for the Project shall, upon payment in full for the Services under each Task Order or as otherwise provided in Section IV herein, be furnished to and become the property of MNWD. ENGINEER may retain a copy of all reports and documents for their files, subject to all other terms and provisions of this Agreement related to confidentiality.

SECTION VII - TERM

Section 7.1 The term of this Agreement shall commence upon the Execution Date and shall remain in effect for a period of three (3) years thereafter, unless otherwise terminated by either party pursuant to Section VIII herein; provided, this Agreement will be deemed to automatically extend and apply to any Task Orders executed under this Agreement that are outstanding at the end of a term.

SECTION VIII - TERMINATION OR ABANDONMENT

Section 8.1 This Agreement may be terminated in whole or in part in writing by either party provided that no such termination may be effected unless the other party is given not less than ten (10) calendar day's written notice (deliver by certified mail, return receipt requested) of intent to terminate. Additionally, MNWD may suspend performance by ENGINEER of any or all Services listed in the Scope of Services and/or any Task Order under this Agreement by providing written notice to ENGINEER at least five (5) working days prior to the date on which MNWD wishes to suspend; provided, upon receipt of such notice, ENGINEER shall immediately suspend any work or Services hereunder, unless otherwise instructed by MNWD in such notice.

Section 8.2 ENGINEER shall not perform further work or Services under this Agreement after the effective date of suspension until receipt of written notice from MNWD to resume performance. MNWD and ENGINEER agree that in the event MNWD suspends or terminates performance by ENGINEER for any cause other than the intentional or negligent error or omission of ENGINEER, ENGINEER shall be entitled to payment of compensation incurred prior to the effective date of the suspension or termination, as determined under Section IV of this Agreement.

Section 8.3 In the event of any suspension or termination herein, MNWD shall have the right to take possession and shall immediately own all original drawings and other documents developed for that portion of the work or Services completed and/or being suspended or abandoned.

SECTION IX - CONFIDENTIALITY

Section 9.1

A. ENGINEER understands that all documents, records, reports, data or other materials (collectively "Materials") provided by MNWD to ENGINEER pursuant to this Agreement, including but not limited to draft reports, final reports and all data, information, documents, graphic displays and other items that are not proprietary to ENGINEER and that are

utilized or produced by ENGINEER pursuant to this Agreement are to be considered confidential for all purposes.

B. ENGINEER shall be responsible for protecting the confidentiality and maintaining the security of Materials and records in its possession. All Materials shall be deemed confidential and shall remain the property of MNWD. ENGINEER understands the sensitive nature of the above and agrees that none of its officers, partners, employees, agents or subconsultants will release, disseminate, or otherwise publish said reports or other such data, information, documents, graphic displays, or other materials except as provided herein or as authorized, in writing, by MNWD. ENGINEER agrees not to make use of such Materials for any purpose not related to the performance of the Services under this Agreement. ENGINEER shall not make written or oral disclosures thereof, other than as necessary for its performance of the Services hereunder, without the prior written approval of MNWD. Disclosure of confidential Materials shall not be made to any individual, agency, or organization except as provided for in the Agreement or as provided by law.

C. All confidential Materials saved or stored by ENGINEER in an electronic form shall be protected by adequate security measures to ensure that such confidential Materials are safe from theft, loss, destruction, erasure, alteration, and any unauthorized viewing, duplication, or use. Such security measures shall include, but not be limited to, the use of current virus protection software, firewalls, data backup, passwords, and internet controls.

The provisions of this Section IX survive the termination or completion of the Agreement.

SECTION X - INSURANCE AND INDEMNIFICATION

Section 10.1 Professional Liability Insurance. ENGINEER and each of its subconsultants shall maintain throughout the term of this Agreement a professional liability (errors and omissions) policy of insurance having coverage of not less than One Million Dollars (\$1,000,000) for each claim and in annual aggregate. The following provisions shall apply if the professional liability coverage is written on a claims-made basis:

- (a) The retroactive date of the policy must be shown and must be before the dated date of this Agreement.
- (b) Insurance must be maintained and evidence of insurance must be provided for at least three (3) years after completion of this Agreement or the Services.
- (c) If coverage is canceled or not renewed and it is not replaced with another claims made policy form with a retroactive date that precedes the date of this Agreement, ENGINEER must provide extended reporting coverage for a minimum of three (3) years after completion of the Services. MNWD shall have the right to exercise at the ENGINEER's cost any extended reporting provisions of the policy should the ENGINEER cancel or not renew the coverage.
- (d) A copy of the claims reporting requirements must be submitted to MNWD prior to the commencement of any work or Services under this Agreement.

Section 10.2 General / Automobile Liability Insurance. ENGINEER and each of its subconsultants shall maintain throughout the term of this Agreement a general liability policy of insurance for bodily injury and/or death, personal injury and property damage claims which may arise from or in connection with the performance of the work under this Agreement by

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ENGINEER and its subconsultants, and each of their agents, representatives, or employees. Such public liability and property damage insurance (which shall cover claims, injury, death, loss or damage or accidents from the use or operation of any automobiles, trucks and/or other mobile or stationary equipment, whether owned, non-owned or hired) shall be comprehensive in form and shall be on a "per occurrence" basis in a minimum amount of One Million Dollars (\$1,000,000) per occurrence and an annual aggregate limit in a minimum amount at least twice the per occurrence limit specified in this section.

All insurance provided under this Section 10.2 shall name MNWD and its' directors, officers, employees and representatives as additional insureds under each such policy ("additional insureds") and an additional insured endorsement shall be provided in a form acceptable to MNWD.

Section 10.3 Worker's Compensation. By its signature hereunder, ENGINEER certifies that it is aware of the provisions of Section 3700 of the California Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and that ENGINEER will comply with such provisions before commencing the performance of work under this Agreement. ENGINEER and subconsultants shall maintain throughout the term of this Agreement workers' compensation insurance with limits no less than the statutory limits, and Employer's Liability insurance with limits no less than One Million Dollars (\$1,000,000) per accident and per disease for their employees and shall file with the MNWD the certificate required by Labor Code Section 3700. The workers compensation/Employer's Liability insurance shall be endorsed with a waiver of subrogation in favor of MNWD and its' directors, officers, employees and representatives.

Section 10.4 Requirements of All Policies. All policies of insurance required under this Section X shall be from insurance providers who are either admitted or licensed to do business in California, or are Surplus Lines Carriers authorized to do business in California, and who have financial size and ratings of no less than A-, Class XIII, and in either case are otherwise acceptable to MNWD. All such policies shall include a provision and executed endorsement for thirty (30) days prior written notice by certified mail, return receipt requested, to MNWD of any cancellation or material alteration of such insurance. ENGINEER shall provide original certificates and endorsements for all such insurance on forms approved by MNWD in conformity with all requirements of this Agreement prior to commencement of any work or professional services. The policies required hereunder shall be endorsed to include contractual liability.

In the case of additional insured provisions, any insurance afforded the additional insureds by this Agreement is primary insurance as to the additional insureds. Any insurance or self-insurance maintained by the additional insureds shall be excess of the ENGINEER's (and its subconsultants') insurance, and shall not contribute to such insurance.

Any deductibles or self-insured retentions must be declared in writing and approved by MNWD. At the option of MNWD, either: the insurance provider(s) shall reduce or eliminate such deductibles or self-insured retentions as respects the MNWD and its' directors, officers, employees and representatives; or the ENGINEER shall provide a financial guarantee satisfactory to MNWD guaranteeing payment of losses and related investigations, claim administration and defense expenses. Maintenance of insurance coverage as specified in this Agreement is a material term of this Agreement, and any failure to maintain or renew coverage, or to provide evidence thereof, as required by the terms is a material breach of this Agreement.

Section 10.5 Indemnity. To the fullest extent permitted by law, ENGINEER shall defend (with counsel reasonably approved by the City), indemnify and hold MNWD and its officials, officers,

employees, agents and designated volunteers free and harmless from any and all claims, demands, causes of action, suits, actions, proceedings, costs, expenses, liability, judgments, awards, decrees, settlements, loss, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, (collectively, "Claims") in any manner arising out of, pertaining to, or incident to any alleged acts, errors or omissions, or willful misconduct of ENGINEER, its officials, officers, employees, subcontractors, consultants or agents in connection with the performance of the ENGINEER'S services, the Project or this Agreement, including without limitation the payment of all consequential damages, expert witness fees and attorneys' fees and other related costs and expenses, including but not limited to legal costs and expenses incurred by the in connection with any Claim or in enforcing the indemnity herein provided. Notwithstanding the foregoing, to the extent ENGINEER'S services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to Claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the ENGINEER. The ENGINEER'S obligations pursuant to this Section shall survive the expiration or termination of this Agreement and/or the performance or completion of any or all Services and work provided under this Agreement. This indemnity obligation shall apply to all liability regardless of whether any insurance is applicable, and the policy limits of any insurance shall not act as a limitation upon the indemnification, and amounts related thereto, to be provided by ENGINEER hereunder.

SECTION XI - WARRANTY

Section 11.1 ENGINEER is employed to render engineering services pursuant to this Agreement only, and any payments made to ENGINEER are compensation solely for such services as it may render and recommendations it may make in carrying out the work or Services. ENGINEER's services will be performed in accordance with generally accepted professional practices and principles and in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions.

Section 11.2 In performing services under this Agreement, ENGINEER shall observe and abide by the terms and conditions of all applicable laws, regulations, ordinances, or other rules of the United States, of the State of California, or any political subdivisions thereof, or of any other duly constituted public authority or agency including but not limited to MNWD. ENGINEER shall procure and maintain all permits, licenses and other governmental required certifications necessary for the performance of the Services, at the sole cost of ENGINEER.

Section 11.3 If the Project results in construction of any kind, the parties agree MNWD and ENGINEER shall be indemnified by the contractor for all claims, damages, losses and expenses arising out of or resulting from the contractor's performance of work including injury to any worker on the job site except for the negligence of MNWD or ENGINEER, such indemnity to be in accordance with MNWD's construction documents. MNWD and ENGINEER shall be named as additional primary insured(s) by contractor's General Liability Insurance policies without offset and all construction documents and insurance certificates shall include wording to such effect.

ENGINEER and MNWD shall not be responsible for the means, methods, techniques, sequences, or procedure of construction selected by contractors or the safety precautions and programs incident to the work of contractor and will not be responsible for a contractor's failure to carry out work in accordance with contract documents.

The Services to be performed by ENGINEER are intended solely for the benefit of MNWD. Nothing contained herein shall confer any rights upon or create any duties on the part of

#6.

ENGINEER toward any person or persons not a party to this Agreement including, but not limited to any contractor, subcontractor, supplier, or the agents, officers, employees, insurers, or sureties of any of them.

SECTION XII – CALIFORNIA LABOR CODE REQUIREMENTS

Section 12.1 ENGINEER is aware of the requirements of California Labor Code Sections 1720 et seq and 1770 et seq., which require the payment of prevailing wage rates and the performance of other requirements on certain “public works” and “maintenance” projects. If the Services are being performed as part of an applicable “public works” or “maintenance” project, as defined by the Prevailing Wage Laws, and if the total compensation is \$1,000 or more, ENGINEER agrees to fully comply with such Prevailing Wage Laws, if applicable. ENGINEER shall defend, indemnify and hold MNWD, its elected officials, officers, employees and agents free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the Prevailing Wage Laws. It shall be mandatory upon the ENGINEER and all subconsultants to comply with all California Labor Code provisions, which include but are not limited to prevailing wages, employment of apprentices, hours of labor and debarment of contractors and subcontractors.

Section 12.2 If the Services are being performed as part of an applicable “public works” or “maintenance” project, in addition to the foregoing, then pursuant to Labor Code Sections 1725.5 and 1771.1, the ENGINEER and all subconsultants must be registered with the Department of Industrial Relations (“DIR”). ENGINEER shall maintain registration for the duration of the project and require the same of any subconsultants. This project may also be subject to compliance monitoring and enforcement by the DIR. It shall be ENGINEER’s sole responsibility to comply with all applicable registration and labor compliance requirements, including the submission of payroll records directly to the DIR.

SECTION XIII - GENERAL

Section 13.1 ENGINEER represents that it is aware of no facts or circumstances which would impair its ability to provide fair and unbiased advice to MNWD in the course of performing the engineering services hereunder, or which would impact its objectivity in performing such services hereunder.

Section 13.2 This Agreement represents the entire understanding of MNWD and ENGINEER as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered hereunder. This Agreement may not be amended, modified or altered except in writing, signed by the parties. This Agreement shall not be construed against the party preparing it, but shall be construed as if both parties prepared it. In the event of any inconsistency between this Agreement and any other agreement or document between the parties, either written or verbal, including any ENGINEER proposal document, this Agreement shall control.

Section 13.3 This is a non-exclusive Agreement for the services contemplated herein.

Section 13.4 Books, documents, papers, accounting records, and other evidence pertaining to costs incurred under this Agreement shall be maintained by ENGINEER and made available at all reasonable times during the contract period and for four (4) years from the date of final payment under this Agreement for inspection by MNWD.

Section 13.5 Any notice required or permitted to be given hereunder if not otherwise specified

herein may be given or delivered by depositing the same in the United States Post Office, registered or certified, postage prepaid, or by personal service a hand delivery, and addressed to:

To MNWD - Attn: Rodney S. Woods
Assistant Director of Engineering
Moulton Niguel Water District
27500 La Paz Road
Laguna Niguel, CA 92677-3489

To ENGINEER - Attn: Tom Epperson, P.E., Project Manager
Tetra Tech
17885 Von Karman Ave., Suite 500
Irvine, CA 92614
(949) 809-5156

Section 13.6 California law shall govern the interpretation of this Agreement. In the event of any legal action to enforce or interpret this Agreement, the sole and exclusive venue shall be a court of competent jurisdiction located in Orange County, California, and the parties hereto agree to and do hereby submit to the jurisdiction of such court, notwithstanding Code of Civil Procedure 394.

Section 13.7 In the event an action is commenced by either party to enforce its rights or obligations arising from this Agreement, the prevailing party in such action, in addition to any other relief and recovery awarded by the court, shall be entitled to recover all costs and expenses, including court costs, plus a reasonable amount for attorney's fees.

Section 13.8 If any section of this Agreement or provision of this Agreement as applied to either party or to any circumstance shall be adjudged by a court of competent jurisdiction to be void or unenforceable for any reason, the same shall in no way affect (to the maximum extent permissible by law) any other provision of this Agreement, the application of any such provision under circumstances different from those adjudicated by the court, or the validity or enforceability of this Agreement as a whole.

Section 13.9 It is expressly understood and agreed that ENGINEER is retained as an independent contractor for the sole purpose of rendering the professional and/or special Services, and is not an employee or agent of MNWD. ENGINEER warrants that it will not represent, at any time or in any manner, that ENGINEER is an employee or agent of MNWD. ENGINEER shall have no authority to, and shall not, incur any debt, obligation or liability on behalf of MNWD. ENGINEER shall be solely responsible for the payment of all federal, state and local income tax, social security tax, Workers' Compensation insurance, state disability insurance, and any other taxes or insurance ENGINEER, as an independent contractor, is responsible for paying under federal, state or local law. ENGINEER is thus not eligible to receive workers' compensation, medical, indemnity or retirement benefits, including but not limited to enrollment in CalPERS.

Section 13.10 This Agreement and all of the terms, conditions, and provisions hereof shall inure to the benefit of and be binding upon the parties hereto, and their respective successors and assigns; provided, however, that no assignment of this Agreement or any interest herein shall be made by ENGINEER without prior written consent of MNWD.

#6.

Section 13.11 The person signing this Agreement on behalf of each party hereto represents he/she has authority to sign on behalf of, respectively, MNWD or ENGINEER. This Agreement may be executed in counterparts, each of which shall be deemed an original.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on this 2nd day of May, 2017 ("Execution Date").

Moulton Niguel Water District

By: 
Joane Lopez
General Manager

Tetra Tech

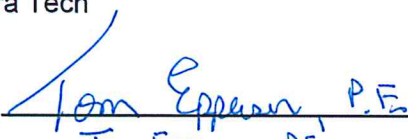
By:  P.E.
Tom Epperson, P.E.
Title: Vice President
Water, Environment & Infrastructure

EXHIBIT A

LIST OF APPROVED SUBCONSULTANTS

RFYeager Engineering (Corrosion Engineering Services)
Richard F. Yeager Jr., PE / Randy J Geving, PE
9562 Winter Gardens, Suite D-151
Lakeside, CA 92040
(619) 647.6265

Coast Surveying, Inc. (Surveying)
Ruel del Castillo, PLS 4212
15031 Parkway Loop, Suite B
Tustin, CA 92780
(714) 918.6266

Leighton Consulting, Inc.
Djan Chandra
17781 Cowan
Irvine, CA 92614
(949) 681.4267

IDModeling, Inc.
Paul Hauffen
55 East Huntington Dr. Ste 130
Arcadia, CA 91006

Harper & Associates Engineering, Inc.
1240 E. Ontario Avenue, Suite 102
Corona, CA 92881
(951) 372.9196

EXHIBIT B

TASK ORDER FORM

[To be executed by DISTRICT and ENGINEER prior to commencement of Services;]

This Task Order is executed pursuant to the "AGREEMENT FOR ENGINEERING SERVICES BETWEEN MOULTON NIGUEL WATER DISTRICT AND TETRA TECH, INC. AS- NEEDED ENGINEERING SERVICES FOR CAPITAL IMPROVEMENT PROGRAM IMPLEMENTATION (Contract No. OM16-17.051d)" dated _____, 2017 (the "Agreement"). The Agreement terms are fully incorporated in this Task Order. Terms used in this Task Order have the same meanings given in the Agreement.

Task Order No.: _____

Task Order Scope of Services:

Authorized Not-to Exceed Task Order Amount*: \$ _____

*ENGINEER to attach Fee Schedule, description of reasonable direct costs; list of Subconsultants; list of deliverables and number copies.

Task Order Completion Date: _____

Notice to Proceed Given: [Date] _____

EXECUTED, ACKNOWLEDGE AND AGREED:

_____ DATE: _____

MNWD's Representative: Title

ENGINEER's Authorized Representative - (print name/title here)

Signature DATE: _____

EXHIBIT C
FEE SCHEDULE



2017
HOURLY CHARGE RATE AND EXPENSE REIMBURSEMENT SCHEDULE

Project Management		Construction	
Project Manager 1	\$210.00	Construction Project Rep 1	\$78.00
Project Manager 2	\$240.00	Construction Project Rep 2	\$85.00
Sr Project Manager	\$305.00	Sr Constr Project Rep 1	\$100.00
Program Manager	\$305.00	Sr Constr Project Rep 2	\$115.00
Principal in Charge	\$305.00	Construction Manager 1	\$165.00
		Construction Manager 2	\$185.00
		Construction Director	\$233.00
Engineers		General & Administrative	
Engineering Technician	\$37.00	Project Assistant 1	\$67.00
Engineer 1	\$96.00	Project Assistant 2	\$75.00
Engineer 2	\$115.00	Project Administrator	\$95.00
Engineer 3	\$130.00	Sr Project Administrator	\$110.00
Project Engineer 1	\$135.00	Graphic Artist	\$130.00
Project Engineer 2	\$165.00	Technical Writer 1	\$97.00
Sr Engineer 1	\$170.00	Technical Writer 2	\$124.00
Sr Engineer 2	\$175.00	Sr Technical Writer	\$155.00
Sr Engineer 3	\$210.00		
Principal Engineer	\$300.00		
		Information Technology	
Planners		Systems Analyst / Programmer 1	\$77.00
Planner 1	\$104.00	Systems Analyst / Programmer 2	\$115.00
Planner 2	\$115.00	Sr Sys Analyst / Programmer 1	\$130.00
Sr Planner 1	\$125.00	Sr Systems Analyst / Programmer 2	\$196.00
Sr Planner 2	\$151.00		
Sr Planner 3	\$175.00	Project Accounting	
Designers & Technicians		Project Analyst 1	\$90.00
CAD Technician 1	\$65.00	Project Analyst 2	\$114.00
CAD Technician 2	\$75.00	Sr Project Analyst	\$155.00
CAD Technician 3	\$90.00		
CAD Designer	\$100.00	Reimbursable In-House Costs:	
Sr CAD Designer 1	\$118.00	Photo Copies (B&W 8.5"x11")	\$ 0.15/Each
Sr CAD Designer 2	\$145.00	Photo Copies (B&W 11"x17")	\$ 0.40/Each
CAD Director	\$150.00	Color Copies (up to 8.5"x11")	\$ 2.00/Each
Survey Tech 1	\$50.00	Color Copies (to 11"x17")	\$ 3.00/Each
		Compact Discs	\$10/each
Health & Safety		Large format copies	\$0.40 S.F.
H&S Administrator	\$95.00	Mileage-Company Vehicle	\$0.80/mile
Sr H&S Administrator	\$115.00	Mileage-POV	\$0.55/mile*
H&S Manager	\$145.00		

*current GSA POV mileage rate subject to change

All other direct costs, such as production, special photography, postage, delivery services, overnight mail, and printing will be billed at cost plus 15%. All services performed by subconsultants will be billed at a cost plus 5%.

Rates may be increased a maximum of 3% per calendar year.

NOTE: Rates subject to change annually.

04-Exhibit A - Hourly Rates

TASK ORDER – TO-03

Preliminary Engineering Services for
Regional Lift Station Enhancements
CIP Project Number 2017.022

This Task Order is executed pursuant to the "AGREEMENT FOR ENGINEERING SERVICES BETWEEN MOULTON NIGUEL WATER DISTRICT AND TETRA TECH. (Contract No. OM16-17.051d)" dated May 2, 2017 (the "Agreement"). The Agreement terms are fully incorporated in this Task Order. Terms used in this Task Order have the same meanings given in the Agreement.

1.0 Task Order No.: TO-03

2.0 Task Order Scope of Services:

See Exhibit A for services details.

3.0 Fee and Fee Schedule:

Authorized Not-to Exceed Task Order Amount of Thirty-One Thousand Six Hundred Dollars (\$31,600).

Consultant will be paid on a time and materials basis. See Exhibit B – Manhour and Fee Summary Table for fee details.

4.0 Project Schedule

Specific schedule details to be agreed upon between the parties.

5.0 Task Order Completion Date: December 15, 2017

6.0 Notice to Proceed Given: September __, 2017

EXECUTED, ACKNOWLEDGED AND AGREED:

Matt [Signature]
MNWD's Representative: Assistant General Manager

DATE: 9/13/17

Tom Epperson P.E. Vice President Water, Environment & Infrastructure
ENGINEER's Authorized Representative - (print name/title here)

Tom Epperson [Signature]
Signature

DATE: 9/13/17



September 1, 2017

Mr. David Larsen, Principal Engineer
Moulton Niguel Water District
26161 Gordon Road
Laguna Hills, CA 92653

**Reference: Proposal for Engineering Services for
Preliminary Design of Regional Lift Station Enhancements**

Dear Mr. Larsen:

Tetra Tech appreciates this opportunity to submit a letter proposal for providing engineering services for the preliminary design of the Regional Lift Station Enhancements. The services for this work shall be in accordance with our Agreement for On-Call Professional Engineering Services for Capital Program Work Implementation Agreement with the District, Agreement No. OM16-17.051d.

PROJECT DESCRIPTION

MNWD desires to improve the reliability of the Regional Lift Station by adding an on-site backup standby pump and power facility while eliminating the possibility of using the 18-inch overflow to the Coastal Treatment Plant. The Backup System, Goodwin Dri-Prime Backup System, provides independently-powered backup pumping in one dependable package unit. The Backup System will engage during loss of power (whether scheduled or emergency) as well as during routine pump maintenance or maintenance activities requiring the shutdown of the existing lift station pumps. At the completion of the preliminary design phase of the work, the District will provide the desired enhancements and request a proposal for the final design of these proposed improvements.

SCOPE OF WORK

Work for the first phase of the work shall consist of the following tasks:

2.1 Project Administration/Management

Tetra Tech will administer the preliminary design work effort. Administration shall include, but is not limited to: attendance at meetings, preparation of meeting agendas and minutes, preparation and maintenance of a project schedule, regular telephone conferences and updates with the District's project manager, and all QA/QC activities.

It is anticipated that the following meetings will be required: kick-off meeting at the lift station site; meeting to discuss preliminary layouts; meeting to discuss preliminary design memorandum; and final meeting to finalize recommended enhancements and scope development for the proposal for the next phase of work.

2.2 Data Collection and Review

Tetra Tech will gather and review the information provided by MNWD, including: record drawings for the original and upgrades at the Regional Lift Station facility; record drawings for the Alicia RW Pump Station; record drawings for the two sludge force mains; lift station flow data for a year; and existing pump curves. Tetra Tech recommends the kick-off meeting be at the site to discuss the various issues and concerns with District's field personnel.

2.3 Confirm Bypass Pump Flow Range

Tetra Tech will tabulate the yearly lift station flows and provide a summary of the typical winter and summer daily flow trends. Based on these trends, Tetra Tech will provide a recommendation for the design flow ranges for both the Bypass Pump and the Pump #5 replacement (low flow pump).

2.4 Bypass Pump Sizing/Selection

Based on the design flow ranges, Tetra Tech will work with Godwin Pumps to select the preliminary sizes for the bypass pump equipment. We have assumed that Tetra Tech will evaluate two different sizes for the Bypass Pump equipment. Tetra Tech will confirm the footprint for these two packages, the suction and discharge piping sizes, and confirmation of the required net positive suction head required for each of these pumps.

2.5 Base Map Preparation

Tetra Tech will prepare a base map of the District's Regional Lift Station site based on the record drawings, sectional maps, and google image of the site. Tetra Tech will perform a site visit to confirm distances between visible features, etc. to confirm the accuracy of the base map. At this time, no survey work will be performed or required. In addition, Tetra Tech will perform utility research with USA to obtain utility maps within Alicia Parkway. In addition, Tetra Tech will prepare base map of the valve vault piping and the lift station pump # 5 facility using record drawings, and previous plans prepared by Tetra Tech. Tetra Tech will confirm and update these base maps based on dimensions taken in the field during our site visit.

2.6 Bypass Equipment and Piping Layout Options

Tetra Tech will evaluate several options for the location of the proposed bypass equipment and piping. We are assuming the following potential locations: adjacent to the valve vault; and in the vicinity of the existing trailer. Preliminary piping profiles will be prepared for the two potential locations. At both locations, Tetra Tech will determine if both sizes of the Bypass Pumping Unit will be feasible. Tetra Tech will identify any existing utilities that may need to be relocated for the proposed piping and/or unit.

2.7 Eliminate Overflow Pipe

The District desires to eliminate the feasibility of using the existing 18-inch overflow to the Coastal Treatment Plant. The District is planning to plug the upstream side of the existing manhole adjacent to the wet well for a temporary solution. Tetra Tech will provide a recommendation and preliminary design detail for the future permanent capping/plugging of the 18-inch overflow within the existing wet well.

In addition, Tetra Tech will provide a preliminary evaluation of locating an additional wet well facilities (tank or concrete structure) within the overflow detention area on site. Tetra Tech will prepare as part of the preliminary design memorandum a summary of the size, type, location, and cost of any feasible alternatives for the additional wet well facilities.

2.8 Pump 5 Replacement

Based on the design flow ranges, Tetra Tech will evaluate downsizing Pump #5 to handle the low flows. Included within this evaluation will be: selection of the pump; size of motor; feasibility of existing VFD to operate the smaller motor; mode of operation; and any hydraulic or operational concerns. Tetra Tech will recommend the replacement pump and motor and any piping modifications and the corresponding construction cost.

2.9 Preliminary Design Memorandum

Tetra Tech will prepare a Preliminary Design Memorandum summarizing the findings of each of the above tasks. Included within the Memorandum will be exhibits showing the recommended layouts, piping, and pump replacements improvements (30% design level exhibits). In addition, Tetra Tech will analyze and make recommendations on the operational characteristics of the backup pump (i.e.: operate independent from existing lift station based on level unless operated in hand-mode or operate on failure of permanent generator). Tetra Tech will provide a summary of the construction cost estimates for all options and the estimated construction cost for the recommended enhancements. It is recommended, that a meeting with the District occur to discuss the various options prior to submitting the Draft Preliminary Design Memorandum and prior to selecting the final recommendations for the various enhancements. In addition, Tetra Tech will provide a proposal to perform the next phase of the work based on the selected/recommended enhancements within the Final Preliminary Design Memorandum. This proposal will be prepared after receiving the District's comments on the Draft Preliminary Design Memorandum. Tetra Tech will make the following submittals: Draft Preliminary Design Memorandum; Preliminary Design Memorandum including draft proposal for Final Design; and Final Preliminary Design Memorandum and proposal for Final Design. The Final Preliminary Design Memorandum will incorporate all District comments. Each submittal will include five hard copies and a PDF of the document.

SCHEDULE

Tetra Tech can begin work immediately upon receipt of the written Notice to Proceed. The following is a summary of our proposed schedule:

- Submit Draft Memorandum 3 to 4 weeks from NTP
- Submit Memorandum and Draft Proposal 2 weeks from receipt of comments on Draft
- Submit Final Memorandum and Proposal 1 to 2 weeks from receipt of comments

BASIS OF FEE

Tetra Tech will execute the work on a Time and Material Basis with a Not-to-Exceed Fee, based on the hourly rate schedule included in our On-Call Professional Engineering Services for Capital Program Work Implementation Agreement. Our Not-to-Exceed Fee includes all labor, materials and other direct costs for all of the work anticipated.

<i>Task</i>	<i>Task Description</i>	<i>Fee</i>
2.1	Project Administration/Management/Meetings	\$ 4,500
2.2	Data Collection and Review	\$ 1,250
2.3	Confirm Bypass Pump Flow Range	\$ 1,770
2.4	Bypass Pump Sizing/Selection	\$ 1,250
2.5	Base Map Preparation	\$ 5,240
2.6	Bypass Equipment and Piping Layout Options	\$ 3,500
2.7	Eliminate Overflow Pipe	\$ 4,950
2.8	Pump 5 Replacement	\$ 2,040
2.9	Preliminary Design Memorandum	\$ 7,100
Total Not-to-Exceed Fee		\$31,600

Attached is our hourly manpower spreadsheet per task.

Thank you again for the opportunity of submitting this proposal as part of our On-Call Professional Engineering Services Agreement.

If you have any questions or require additional information, please do not hesitate to give me a call.

Sincerely,



Tom Epperson, P.E.
Project Manager

TLE:te

Attachment

M./Management/Drafts/Epperson/MNWD Regional Lift Station Preliminary Design Proposal

Moulton Niguel Water District
 Preliminary Design of Regional Lift Station Enhancements
 Fee Proposal

EXHIBIT B

Task Description	Senior Project Manager					Design Engineer			CADD		WP	Total Hours	Fees		TOTALS
	Senior Project Manager	Project Manager	Design Engineer	CADD	WP	Labor	Sub-Contractors Re-imbursables								
Regional Lift Station Enhancements															
Preliminary Design															
1	4	0	0	0	0	0	0	0	0	0	4	\$1,220	\$0	\$1,220	
Project Administration/Management (3 mo) Meetings (4)	4	8	0	0	0	0	0	0	0	2	14	\$3,120	\$160	\$3,280	
2	0	1	8	0	0	0	0	0	0	0	9	\$1,250	\$0	\$1,250	
Data Collection and Review	0	1	12	0	0	0	0	0	0	0	13	\$1,770	\$0	\$1,770	
3	0	1	8	0	0	0	0	0	0	0	9	\$1,250	\$0	\$1,250	
Confirm Bypass Pump Flow Range	0	1	8	0	0	0	0	0	0	0	9	\$1,250	\$0	\$1,250	
4	0	1	8	0	0	0	0	0	0	0	9	\$1,250	\$0	\$1,250	
Bypass Pump Sizing/Selection	0	1	8	0	0	0	0	0	0	0	9	\$1,250	\$0	\$1,250	
5	0	1	8	24	2	35	\$4,950	\$290	\$5,240						
Base Map Preparation	0	1	8	24	2	35	\$4,950	\$290	\$5,240						
6	1	2	12	8	0	23	\$3,445	\$55	\$3,500						
Bypass Equipment & Piping Layout Options	1	2	12	8	0	23	\$3,445	\$55	\$3,500						
7	0	0	4	4	0	8	\$1,100	\$0	\$1,100						
Eliminate Overflow Pipe	0	0	4	4	0	8	\$1,100	\$0	\$1,100						
8	1	4	16	4	0	25	\$3,805	\$45	\$3,850						
Additional Wet Well Facilities	1	4	16	4	0	25	\$3,805	\$45	\$3,850						
9	0	2	8	4	0	14	\$2,040	\$0	\$2,040						
Pump 5 Replacement	0	2	8	4	0	14	\$2,040	\$0	\$2,040						
9	2	12	8	16	4	42	\$6,930	\$170	\$7,100						
Preliminary Design Memorandum	2	12	8	16	4	42	\$6,930	\$170	\$7,100						
TOTAL	12	32	84	60	8	196	\$30,880	\$720	\$31,600						



AMENDMENT NO. 1 to TASK ORDER TO-03

Preliminary Engineering Services for
Regional Lift Station Enhancements
CIP Project Number 2017.022
Tetra Tech

Whereas, Moulton Niguel Water District ("MNWD"), and Tetra Tech ("Engineer"), entered into the AGREEMENT FOR ENGINEERING SERVICES, Contract OM16-17.051d, dated May 2, 2017 (the "Agreement"); and

Whereas, Task Order No. TO-03 ("Task Order") was executed by MNWD on September 6, 2017, to provide preliminary engineering services for the Regional Lift Station Enhancements Project with a Task Order Completion Date of December 15, 2017; and

Whereas, the authorized Not-to-Exceed fee for providing the services set forth in the Task Order was \$31,600; and

Whereas, it is necessary to Amend said Task Order to extend the Task Order Completion Date and provide additional engineering and design services not included in the original Task Order, as set forth below:

- Scope of Work: See EXHIBIT 'A'
- Fee Summary: See EXHIBIT 'A'

All terms and conditions of the original underlying Agreement and Task Order, shall remain in effect, with the exception of the additional scope as described herein and to increase the amount the Engineer may be paid by \$167,200, to a new Not-to-Exceed total Task Order amount of \$198,800.

The original Task Order Completion Date is hereby extended to December 31, 2019.

Task Order Completion Date: December 31, 2019

Notice to Proceed Given: March 26, 2018

EXECUTED, ACKNOWLEDGED AND AGREED:



Joone Lopez, General Manager

DATE: 3/22/18

Tom Epperson, P.E., Vice President

ENGINEER's Authorized Representative - (print name/title here)



Signature

DATE: 3/21/18



TETRA TECH

February 27, 2018

Mr. David Larsen, Principal Engineer
Moulton Niguel Water District
26161 Gordon Road
Laguna Hills, Ca 92653

**Reference: Proposal for Engineering Final Design Services for
Regional Lift Station Enhancements**

Dear Mr. Larsen:

Tetra Tech has been working with the District on the Preliminary Design of the Regional Lift Station Enhancement Project since September 2017. Tetra Tech is in the process of finalizing the Preliminary Design Memorandum based on our recent meeting with the District. The District has requested Tetra Tech prepare a proposal for the final design of the proposed enhancements. The services for this work shall be in accordance with our Agreement for On-Call Professional Engineering Services for Capital Program Work Implementation Agreement with the District, Agreement No. OM16-17.051d.

PROJECT DESCRIPTION

MNWD desires to improve the reliability of the Regional Lift Station by adding an on-site backup standby pump and power facility. The Backup System, Godwin Dri-Prime Backup System, provides independently-powered backup pumping in one dependable package unit. The Backup System will engage during loss of power (whether scheduled or emergency) as well as during routine pump maintenance or maintenance activities requiring the shutdown of the existing lift station pumps. In addition, the District desires the following other enhancements at the site: downsize Pump No. 5 to handle low flows; increase wet-well capacity with new tank/structure; and repair the existing wet well facility.

SCOPE OF WORK

Work shall consist of the following tasks:

2.1 Project Administration/Management

Tetra Tech will administer the final design. Administration shall include, but is not be limited to: attendance at meetings, preparation of meeting agendas and minutes, preparation and maintenance of a project schedule, regular telephone conferences and updates with the District's project manager, and all QA/QC activities. It is anticipated that the following meetings will be required:

- Meeting to discuss Basis of Design Memorandum.
- Design progress meetings after 70% and 90% submittals.
- Construction phasing, maintaining sewer service and operational control meeting.

Deliverables: agendas and minutes for four (4) meetings; and biweekly schedule updates.

Mr. David Larsen, Principal Engineer
February 27, 2018
Page 2

2.2 Basis of Design Memorandum

Tetra Tech will continue to evaluate options for the Backup Standby Pump and verify the impact of suction lift heights. The focus will be confirming the actual operation during a typical 24 hour sewer demand cycle (especially operation during the low flow): recommended starts/stops per hour, if applicable; control mechanisms; self-sufficiency of equipment; the use of dual CD350M pumps; and local installations of any of the two recommended pumping equipment. In addition, Tetra Tech will evaluate alternatives for additional wet well capacity: buried fiberglass tanks or cast-in-place or precast concrete wet well structure. These proposed facilities would be located within the existing overflow detention area on site with the reconfiguration of the adjacent gravity sewer pipelines as required.

Tetra Tech will prepare a Basis of Design Memorandum summarizing these two items and meet with the District to summarize our findings and assist the District in determining the recommended improvements for the project.

2.3 Design Survey and Base Construction Drawing

Tetra Tech will perform a field survey of the project site, including the overflow detention area. The survey will be horizontally and vertically tied to an assumed local control. Tetra Tech will identify/set two horizontal control points and one temporary benchmark to be used during the construction phase of the project. In addition, Tetra Tech will perform a site visit to confirm the existing surge tank facilities and other on-site utilities. Tetra Tech will update the existing base map with the survey data and additional field work. Tetra Tech will confirm the property lines based on recorded maps provided by the District.

2.4 Potholing and Geotechnical Investigation

Tetra Tech will prepare a potholing plan for locating key underground utilities that may conflict with the proposed enhancements. For this proposal, we have assumed one day of potholing activities. Potholing will be performed by C-Below or Cardno based on their availability. We will try to schedule this work at the same time the potholing will be performed within the Regional Park, but most likely the two schedules will not coincide.

Tetra Tech does not feel a geotechnical investigation is required for the design of the enhancements. Tetra Tech will request any existing geotechnical reports that the District may have for either the lift station or the recycled water pump station. In addition, Tetra Tech will be having geotechnical exploration performed within the Regional Park as part of the force main replacement project.

2.5 Operational Controls

Tetra Tech will work with the District to determine the best manner of operating both the new Pump No. 5, the existing generator and the proposed Backup System. This task will include evaluation of controls, levels, and any SCADA revisions recommended to operate the facilities with the proposed enhancements in the most efficient and reliable manner. Tetra Tech will prepare a brief operational control memorandum summarizing the decisions/direction selected by the District. A draft of the memorandum will be submitted to the District for review and comments. Tetra Tech will revise the memorandum, incorporating any of the District's comments.

Mr. David Larsen, Principal Engineer
February 27, 2018
Page 3

2.6 Preparation of Contract Documents, Plans and Specifications

Tetra Tech will prepare a complete set of Contract Documents (construction drawings and specifications). We envision the following drawings, as a minimum:

- Title, Second (General Notes), and Third Sheet (Drawing and Agency Index, etc.)
- Horizontal Control Plan
- Existing Site Plan and Demolition Plan and Details (removal of existing surge tank)
- Site Plan and Precise Grading Plan
- Yard Piping Plan
- Site Section and Piping Profiles
- Valve Vault Plan and Sections
- Piping and Valve Vault Details
- Pump Room Demolition Plan and Details
- Pump Room Plan and Sections
- Pump Room Details
- Wet Well Rehabilitation Plan and Section including abandonment of existing 18" overflow
- Structural Notes
- Demolition of Existing Valve Vault Roof Plan and Section
- Valve Vault Removable Roof Structural Plan and Sections
- Wet Well Cast-in-Place Structure Floor and Roof Plan
- Wet Well Cast-in-Place Structure Sections
- Well Well Structural Details
- Backup System Concrete Pad Plan and Section
- Electrical Site Plan Improvements
- Electrical Modifications (Pump Room)
- SCADA Modifications
- Electrical/Instrumentation Details

The Specifications will need to include the work schedule, including phasing of the work and maintaining sewage service. Tetra Tech will prepare the Contract Documents using the District's standard format, standard forms, standard agreement, standard bonds, complete General Provisions, pertinent Special Provisions, pertinent Technical Specifications, and pertinent Standard Drawings. For this project, Tetra Tech will make four (4) submittals: 70% submittal; 90% submittal; 100% submittal; and Final Contract Documents.

The 90% submittal will include a substantially completed draft set of construction drawings and specifications. Two (2) full size hard copies will be submitted, together with a fully searchable electronic copy. The submittal will include a preliminary construction cost estimate.

Mr. David Larsen, Principal Engineer
February 27, 2018
Page 4

The 100% submittal will include a fully completed set of construction drawings and specifications. The 100% submittal will incorporate all District comments from the 90% Review (or an explanation of why the comment was dismissed). The 100% submittal will be made with the assumption that there are no loose ends and that the project is ready to be bid in Tetra Tech's opinion. Two (2) full size hard copies will be submitted, together with a fully searchable electronic copy. In addition, a final construction cost estimate will be submitted.

The Final Contract Documents will be submitted once the District completes its cursory review of the 100% submittal. The Final Contract Documents will incorporate all District comments from the 100% Review (or an explanation of why the comment was dismissed). The Final Contract Documents shall be stamped and signed reproducible construction plans (mylars) and specifications for District's signatures. After obtaining District signatures, Tetra Tech will provide the District with fifteen (15) sets of full size construction plans and fifteen (15) sets of bound construction specifications with 11" x 17" reduced construction drawings enclosed as an exhibit. Note: "Full size" drawings/plans shall be 22" x 34" such that 11" x 17" prints are true half size.

2.7 Permitting

Tetra Tech has not included any encroachment permits support as all of the work will be performed within the District's property. Tetra Tech will assist in the coordination of the permitting through the South Coast Air Quality Management District for the Backup System.

2.8 Construction Cost Estimates and Schedule

Tetra Tech will prepare an engineer's estimate of probable construction costs for the complete project following the format of bid items as prepared for the Construction Specifications. Construction cost estimates, including a detailed cost breakdown, shall be provided with the 70%, 90% and 100% Submittals. Final construction cost estimate will be prepared in enough detail that a contingency is not required.

2.9 Bid Period Support

During bidding period, Tetra Tech will assist with providing information and clarification of the Contract Documents to prospective bidders as requested. Tetra Tech has assumed that one addenda will be required during the bid process. Tetra Tech will also conduct an onsite pre-bid meeting.

2.10 Construction Phase Services

During the construction of the proposed improvements, Tetra Tech will provide the following construction phase services:

- A. Pre-Construction Meeting: Attend pre-construction meeting with the District and Contractor prior to beginning construction, and prepare agenda and minutes.
- B. Contractor's RFI: Respond to approximately twenty (20) Requests for Information from the Contractor and the District. Tetra Tech will prepare and maintain a RFI log, and distribute on a bi-weekly basis during construction.

Mr. David Larsen, Principal Engineer
 February 27, 2018
 Page 5

- C. Shop Drawing Reviews: Review and provide comments on at most thirty (30) civil/mechanical and electrical shop drawing submittals, and ten (10) structural rebar submittals. Tetra Tech has assumed that each submittal will require a second review. Tetra Tech will prepare and maintain a shop drawing log, and distribute on a bi-weekly basis during construction.
- D. Site Visits: Tetra Tech has assumed a total of six (6) visits of two hours each as requested by District staff.
- E. Start-up Assistance: Tetra Tech will provide a total of eight (8) hours of start-up assistance as requested by District staff.
- F. Record Drawings: At the conclusion of the construction, the District will provide Tetra Tech with a single, consolidated set of red-lines as-built drawings. Tetra Tech will prepare the final record drawings based on the same. Record drawings will be prepared in AutoCad. Three (3) full size sets of draft record drawings will be provided. Upon the District's review and approval, one (1) full size set of mylars with original signatures will be submitted. In addition, Tetra Tech will provide electronic files in both AutoCad (including all reference files) and PDF formats. Full size drawings and plans will be 22" x 34" such that 11"x17" prints are true half size.

PROJECT TEAM

Tetra Tech's project team for this project will include the following personnel: Tom Epperson, P.E. as the Project Manager; Tim Joyce as the Staff Manager; Laurence Esguerra, P.E. as the Project Engineer; survey work will be performed by Metz Surveying Inc. (former Tetra Tech employee); Victor Ramirez, P.E., S.E. will be the Structural Manager; and Mazen Kassar, P.E. will be Electrical Manager.

SCHEDULE

Tetra Tech has the ability to complete all of the work, considering our current and planned workload, within the following schedule:

Task or Milestone	Milestone Date
Final Executed Task Order – NTP	February 26, 2018
Basis of Design Memorandum	March 15, 2018
Survey and Potholing	March 5 to April 20, 2018
Operational Controls	September 14, 2017
70% Design Submittal	April 12, 2018
90% Design Submittal	May 17, 2018
100% Design Submittal	June 14, 2018
Final Mylars and Specifications	June 28, 2018

Mr. David Larsen, Principal Engineer
 February 27, 2018
 Page 6

The above schedule is based on the following review times by the District: Memorandums one week; 70% and 90% submittal two weeks; and 100% submittal one week.

BASIS OF FEE

We have prepared the following fee summary. We will execute the work on Time and Materials with a Not-to-Exceed Fee, based on the hourly rate schedule included in our On-Call Professional Engineering Services for Capital Program Work Implementation Agreement.

Task	Task Description	Fee
2.1	Project Administration/Management	\$ 12,500
2.2	Basis of Design Memorandum	\$ 4,800
2.3	Design Survey and Base Drawing	\$ 5,400
2.4	Potholing and Geotechnical Investigation	\$ 5,400
2.5	Operational Controls	\$ 4,200
2.6	Preparation of Contract Documents, Plans and Specifications	\$ 75,000
2.7	Permitting	\$ 2,000
2.8	Construction Cost Estimates and Schedule	\$ 4,000
2.9	Bid Period Support	\$ 3,900
2.10	Construction Phase Services	\$ 50,000
Total Not-to-Exceed Fee		\$ 167,200

Attached is our hourly manpower spreadsheet per task.

Thank you again for the opportunity of submitting this proposal as part of our On-Call Professional Engineering Services Agreement.

If you have any questions or require additional information, please do not hesitate to give me a call.

Sincerely,


 Tom Epperson, P.E.
 Project Manager

TLE/te
 P:200-09366-17001-02 ProjMgmt/Correspondence/Regional LS Enhancement Final Design Proposal
 Attachment

**Moulton Niguel Water District
Regional Lift Station Enhancements
Manhour and Fee Summary**

Task	Task Description	Manhour by Staff Classification										Total Hours	Labor	Equip	Total		
		MD	MM	EA	GA	GA/OP	Electrical	Hours	Rate	Rate	Rate						
SCOPE OF WORK																	
2.1	Project Administration and Management																
	Project Administration (4 months) and including bi-weekly updates	8															
	QA/QC	24															
2.2	Meetings (4 meetings)	4	6														
	Basin of Design Memorandum			16													
2.3	Design Survey and Base Construction Drawing																
	Design Survey																
	Base Construction Drawing																
2.4	Pathrolling																
2.5	Operational Controls																
2.6	Preparation of Contract Documents																
	General Sheets (3)																
	Horizontal Control Plan																
	Existing Site Plan and Demolition Plan																
	Site Plan and Precise Grading Plan																
	Yard Piping Plan																
	Site Section and Piping Profiles																
	Valve Vault Plan and Sections																
	Piping and Valve Vault Details																
	Pump Room Demolition Plan and Details																
	Pump Room Plan and Sections																
	Pump Room Details																
	Wet Well Rehabilitation Plan and Section																
	Structural Notices and Calculations																
	Demolition of Existing Valve Vault Roof																
	Valve Vault Removable Roof Structural Plan and Sections																
	Wet Well Cast-In-Place Plans and Sections (2 sheets)																
	Wet Well Structural Details																
	Backup System Concrete Pad Plan and Sections																
	Electrical and SCADA Plans (4 sheets)																
	Specifications																
	Submittals (70%, 90%, 100% and Final)																
2.7	Permitting																
2.8	Construction Cost Estimates and Schedule																
2.9	Bid Period Support																
2.10	Construction Phase Services																
	Project Administration during Construction Phase Services (assume 9 months)																
	Pre-Construction Meeting																
	Contractor's RFI (20)																
	Civil/Mechanical/Electrical Shop Drawings (30)																
	Structural Shop Drawings (10)																
	Site Visits (6)																
	Start-up Assistance																
	Record Drawings																
	Totals	72	188	280	210	300	22	1052	\$156,330	\$10,870	\$167,200						



AMENDMENT NO. 2 to TASK ORDER TO-03

Preliminary Engineering Services for
Regional Lift Station Enhancements
CIP Project Number 2017.022
Tetra Tech

Whereas, Moulton Niguel Water District (“MNWD”), and Tetra Tech (“Engineer”), entered into the AGREEMENT FOR ENGINEERING SERVICES, Contract OM16-17.051d, dated May 2, 2017 (the “Agreement”); and

Whereas, Task Order No. TO-03 (“Task Order”) was executed by MNWD on September 6, 2017, to provide preliminary engineering services for the Regional Lift Station Enhancements Project with a Task Order Completion Date of December 15, 2017 with a Task Order not-to-exceed amount of \$31,600; and

Whereas, on March 22, 2019 the Task Order was amended to provide additional engineering services not included in the original Task Order, increasing the not-to-exceed total Task Order amount to \$198,800; and

Whereas, it is necessary to amend said Task Order to provide additional engineering services not included in the original or amended Task Order as set forth below, and extend the Task Order Completion Date to June 20, 2021.

- Supplemental Scope of Work and Fee Summary: See EXHIBIT ‘A’

All terms and conditions of the original underlying Agreement and Task Order, shall remain in effect, with the exception of the additional scope as described herein and to increase the amount the Engineer may be paid by **\$63,800**, to a new Not-to-Exceed total Task Order amount of **\$262,600**.

Amended Task Order Completion Date: June 30, 2021

Notice to Proceed Given: _____

EXECUTED, ACKNOWLEDGED AND AGREED:

Joone Lopez, General Manager

DATE: _____

ENGINEER’s Authorized Representative - (print name/title here)

Signature

DATE: _____



Supplemental Scope of Work and Fee Summary

November 27, 2019

Mr. David Larsen, P.E. Engineering Manager and Mr. Bryan Hong, P.E. Senior Engineer
Moulton Niguel Water District
26880 Aliso Viejo Parkway
Aliso Viejo, Ca 92656

**Reference: Regional Lift Station Enhancements, Contract No. 2017.022, Task Order TO-03
Additional Work Request**

Dear Mr. Larsen and Mr. Hong:

Tetra Tech has been working on the Regional Lift Station Enhancements since September 2017. The services for this work was performed in accordance with our Agreement for On-Call Professional Services for Capital Program Implementation Agreement with the District (Contract No. OM16-17.051d), Task Order No. 03. The original approved budget was \$31,600 for the Preliminary Design. By Amendment No. 1, the District increased our approved budget by \$167,200 for the preparation of the final design and construction support services for the proposed lift station enhancements.

During the final design process, the District requested Tetra Tech to expand our approved scope of work to include several miscellaneous items, including a new wet well within the existing overflow basin, construction bypass pumping plan and P&IDs for the proposed enhancements. Our original proposal for final design, dated February 27, 2019 included a summary of the anticipated drawings on page 3, (a total of 25 drawings). Our 90% completion status plans consisted of a total of 37 sheets, or additional 12 sheets. Tetra Tech submitted our 90% completion status plans to the District in late March 2019 and the 90% completion status specifications in early April 2019. Tetra Tech received the District's comments on the 90% completion submittal in early November 2019. Based on the District's comments, Tetra Tech has received the necessary directions to complete the final plans and specifications for bidding. The following correspondence summarizes the additional work that has been requested, and the corresponding additional budget required to perform this work.

Additional Scope of Work

Task No. 1 *Additional Design Memorandums*

Our original proposal included the preparation of a Basis of Design Memorandum, Task 2.2, with a budget of \$4,800 (level of effort of 28 hours). Tetra Tech submitted the Draft Preliminary Design Memorandum on April 11, 2018. After discussion of the memorandum findings with the District, it was determined that additional investigations were needed prior to initiating the final design; a more detailed information on the operation of the Godwin Pump System and additional options for the overflow storage facilities. The Final Preliminary Design Memorandum was submitted on June 7, 2018. It is Tetra Tech's opinion that the Final Preliminary Design Memorandum completed the scope of work that was anticipated in the Basis of Design Memorandum, Task 2.2, in our original proposal.

Tetra Tech prepared a Draft Basis of Design Memorandum, dated May 18, 2018, which provided additional information on the backup standby pump system as well as options for the wet well capacity improvements. In order to prepare this memorandum, Tetra Tech had several meetings and phone conversations with Godwin representatives. This memorandum was finalized on June 7, 2018. It is Tetra Tech's opinion that the preparation of this Draft Basis of Design Memorandum was extra work.

Mr. David Larsen, P.E. Engineering Manager and Mr. Bryan Hong, P.E., Senior Engineer
November 26, 2019
Page 2

In addition, the District requested Tetra Tech to perform an evaluation of the potential discharge and suction pipeline alignments and related impacts to the operation of the lift station. Tetra Tech prepared a Draft Suction and Discharge Pipeline Technical Memorandum, dated June 7, 2018, which identified and evaluated potential alignments for the suction piping from the wet well to the bypass pump and the discharge piping to the lift station force main. It is Tetra Tech's opinion that the preparation of this Draft Suction and Discharge Pipeline Technical Memorandum was extra work.

To perform this additional work, Tetra Tech is requesting a budget increase of **\$10,000** be approved.

Task No. 2 ***Additional Potholing***

Our original proposal included one day of potholing activities to be performed by C-Below (with a budget of \$5,045). Due to the quantity of utilities requiring potholing, specifically the electrical conduits and the difficulty of finding the existing sludge force mains, C-Below was required to spend three (3) days potholing at the Regional Lift Station site. The two additional days resulted in an increase in the C-Below's cost for potholing of \$8,270.

To perform this additional work, Tetra Tech is requesting a budget increase of **\$8,700** be approved.

Task No. 3 ***Additional Operational Controls***

Our original proposal included the preparation of a brief operational control memorandum, Task 2.5, with a budget of \$4,200 (level of effort of 26 hours). Tetra Tech prepared a brief summary of the operational controls for the CD 400 pumping system. However, due to concerns with the peak flow, the District decided to install the larger CD500 pumping systems. Therefore, Tetra Tech had to: re-evaluate the operational controls for the larger pump; work with Godwin to confirm the concerns with running dry or cycling on and off; determine the priming time; and summarize the typical operational scenarios for minimum and peak flows. Tetra Tech attended four (4) additional meetings with Godwin and the District to discuss and review with the District the operational controls. It is Tetra Tech's opinion that the re-evaluation of the operational controls is additional work.

To perform this additional work, Tetra Tech is requesting a budget increase of **\$5,000** be approved.

Task No. 4 ***Additional Wet Well Facility***

To increase the amount of storage during an emergency event, the District decided to construct an additional wet well facility within the existing overflow basin. This additional wet well manhole will be constructed while the lift station is in operation. Once the additional wet well manhole is placed into service, it can be used as the suction wet well for the construction bypass pumping activity which will be required to perform the piping modifications within the pump room and within the valve vault as well as the rehabilitation of the existing wet well. This additional wet well facility required the following additional work that was not anticipated in our original proposal:

- Demolition Plan: show the proposed demolition of the overflow basin;
- Site Plan: show the proposed site improvements and catwalk within the overflow basin;
- Additional Drawing: Construction Access Plan (required to gain access to the overflow basin);
- Additional Drawing: Construction Bypass Pumping Plan;

#6.

Mr. David Larsen, P.E. Engineering Manager and Mr. Bryan Hong, P.E., Senior Engineer
November 26, 2019
Page 3

- Yard Piping Pan: show the proposed piping improvements within the overflow basin;
- Additional Drawing: Overflow Manhole Plan and Section and Miscellaneous Details; and
- Additional Structural Drawing: Catwalk Plan and Section for Wet Well.

To perform this additional work, Tetra Tech is requesting a budget increase of **\$20,000** be approved.

Task No. 5 *Pump No. 5 Replacement Conflicts*

During the design of the Pump No. 5 replacement, it was determined that the existing monorail crane beam, that is located beneath the existing catwalk framing, will be in vertical conflict with the proposed grinder and the catwalk framing will be in horizontal and vertical conflict with the proposed motor without the relocation of the existing pump pedestal and suction piping. Tetra Tech revised the alignment of the grinder and pump to alleviate the conflict. However, to make sure the contractor understands the limitation of available working space due to the crane beam and catwalk framing, Tetra Tech included additional section and details showing the existing improvements. To perform this additional work, Tetra Tech is requesting a budget increase of **\$3,000** be approved.

Task No. 6 *Additional Structural Work for Removable Valve Vault Roof*

Our original proposal included the following structural sheets for the valve vault removable roof structure: demolition of the existing roof plan and section; and valve vault removable roof structural plan and section. However, to allow for an easier removal of the valve vault roof and to provide adequate details for bidding, Tetra Tech was required to prepare the following structural plans: demolition plan (S-101) and section (S-301); canopy foundation plan (S-102) and section (S-302); and removable canopy framing plan (S-103) and framing details (S-502). It is Tetra Tech's opinion that three additional structural sheets were required to adequately show the proposed improvements.

To perform this additional work, Tetra Tech is requesting a budget increase of **\$10,000** be approved.

Task No. 7 *Additional Electrical for SCADA Control of Standby Pump System*

To better clarify the proposed electrical improvements and to tie the bypass pumping system into the District's SCADA system, Tetra Tech was required to complete the following additional electrical/instrumentation drawings:

- Lift Station Upper Level Plan;
- Single line diagram and conduit schedule; and
- P&ID.

To perform this additional work, Tetra Tech is requesting a budget increase of **\$9,000** be approved.

Task No. 8 *Operational Protocols and Sequencing*

The District has requested Tetra Tech to work with Godwin to prepare a summary of the operational protocols for the bypass pumping system. This will include reviewing Godwin's O&M manuals and their operation sequencing and protocols. In addition, Tetra Tech will provide a summary of the priming times, anticipated pumping rates and wet well levels for the various operating conditions. To perform this additional work, Tetra Tech is requesting a budget increase of **\$5,000** be approved.

Mr. David Larsen, P.E. Engineering Manager and Mr. Bryan Hong, P.E., Senior Engineer
November 26, 2019
Page 4

Requested Additional Budget

Tetra Tech is requesting the following not-to-exceed budget authorization to compensate us for this additional work. A breakdown of the requested budget authorization for each task is provided below:

<i>Task No.</i>	<i>Task Description</i>	<i>Additional Budget</i>
1	Additional Design Memorandums	\$ 13,100
2	Additional Potholing	\$ 8,800
3	Additional Operational Controls	\$ 5,000
4	Additional Wet Well Facility	\$ 14,800
5	Pump No. 5 Replacement Conflicts	\$ 3,100
6	Additional Structural Work – Removable Valve Vault Roof	\$ 7,000
7	Additional Electrical – SCADA Control Standby Pump	\$ 6,800
8	Operational Protocols and Sequencing	\$ 5,200
Total Additional Budget Amount		\$ 63,800

By authorizing the above additional budget amounts, Tetra Tech’s authorized budget amount will be increased from \$198,800 to **\$262,600**.

We have also included our hourly manpower spreadsheet per task.

Thank you for the opportunity of being part of the District’s On-Call Professional Engineering Services for Capital Program Implementation Agreement with the District.

If you have any questions or require additional information, please do not hesitate to give me a call.

Sincerely,



Tom Epperson, P.E.
Project Manager

TLE/te
P:200-09366-17001-02/ProjMgmt/Correspondence/Additional Work Request

Attachment

Task Description	Senior Project Manager	Project Manager	Project Engineer	Design Engineer	CADD/WP	Total Hours	Fees		TOTALS
							Labor	Sub-Contractors Reimbursables	
Additional Work Request									
1 Additional Design Memorandums									
Basis of Design Memorandum (5/16/18)	2	4	8	16	16	46	\$6,330	\$20	\$6,350
Suction/Discharge Technical Memorandum	2	4	8	16	20	50	\$6,730	\$20	\$6,750
2 Additional Potholing									
Additional Potholing	0	0	2	0	2	4	\$530	\$8,270	\$8,800
3 Additional Operational Controls									
Re-evaluation of Larger Pumping System	2	4	4	6	0	16	\$2,920	\$0	\$2,920
Additional Meetings (4)	2	4	0	4	0	10	\$2,030	\$50	\$2,080
4 Additional Wet Well Facility									
Demolition/Storage Yard Piping Plan Mods	1	0	6	12	4	23	\$3,075	\$0	\$3,075
Construction Access Plan	0	0	2	6	8	16	\$1,820	\$20	\$1,840
Construction Bypass Pumping Plan	1	0	4	8	8	21	\$2,685	\$20	\$2,705
Overflow Manhole Plan and Section	1	0	6	12	8	27	\$3,475	\$25	\$3,500
Catwalk Plan and Section for Wet Well	0	2	6	12	8	28	\$3,650	\$30	\$3,680
5 Pump NO. 5 Replacement Conflicts									
Revise Alignment and additional section	1	0	6	12	4	23	\$3,075	\$25	\$3,100
6 Additional Structural Work - Removable Roof									
Demolition Section	0	1	2	6	8	17	\$2,060	\$30	\$2,090
Removable Canopy Framing Section	0	2	4	8	8	22	\$2,860	\$30	\$2,890
Removable Canopy Framing Details	0	1	4	6	4	15	\$1,990	\$30	\$2,020
7 Additional Electrical Work - SCADA									
Lift Station Upper Level Plan	0	1	2	4	6	13	\$1,630	\$30	\$1,660
Single Line Diagram and Conduit Schedule	0	2	4	8	6	20	\$2,660	\$30	\$2,690
P&ID	0	1	4	8	6	19	\$2,420	\$30	\$2,450
8 Operational Protocols and Sequencing									
Operational Protocols and Sequencing	8	4	8	4	0	24	\$5,180	\$20	\$5,200
Additional Budget Request									
	20	30	80	148	116	394	\$55,120	\$9,680	\$63,800
TOTAL									
	20	30	80	148	116	394	\$55,120	\$8,680	\$63,800



moulton niguel water district

STAFF REPORT

TO: Board of Directors MEETING DATE: December 18, 2019
FROM: Drew Atwater, Director of Finance and Water Resources
Lindsey Stuvick, Water Efficiency Manager
SUBJECT: Turf Removal Incentive Funding

SUMMARY:

Issue: Board action is required to discontinue turf removal incentive funding for artificial turf projects.

Recommendation: It is recommended that the Board of Directors approve a change to the turf removal program to discontinue incentive funding for artificial turf; and authorize the General Manager or Assistant General Manager to implement the appropriate updates to the program documents.

Fiscal Impact: The District currently provides \$3 per square foot in turf removal incentive funding toward artificial turf projects.

Reviewed by Committee: Not reviewed by committee.

Reviewed by Legal: Yes

BACKGROUND: In January 2011, the District opted to participate in the regional turf removal program, which provides residential and commercial customers with an incentive to replace turf with drought tolerant landscaping. In November 2011, the Board made a policy decision to also provide customers with an incentive to replace grass with artificial turf. Over the past 8 years, the turf removal program has proven to be hugely popular with customers. In total, the District has funded the removal of nearly 5.4 million square feet of turf, roughly a quarter of the turf replaced through the Orange County regional turf removal program.

Direct water savings from turf removal program participants amount to hundreds of millions of gallons annually. Local studies have shown the turf removal program promotes a neighborhood effect, where one turf removal project incentivized through the rebate program has the effect of encouraging 2 or more neighbors to replace turf with drought tolerant landscapes without the need for incentive funding. The neighborhood effect therefore promotes landscape transformation at the community-

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Turf Removal Incentive Funding

December 18, 2019

Page 2 of 3

scale and provides an added benefit of indirect water savings at double or triple the rate of the turf removal rebate program by itself.

Over the years, the turf removal program has evolved from a program that was singularly focused on water savings to one that also seeks to achieve multiple benefits for the environment by creating sustainable, watershed-friendly landscapes. Specifically, in July 2018, Metropolitan Water District implemented several major changes to the regional turf removal program, including new requirements for participants to install landscape design features that capture and store water on-site, apply organic mulch immediately around plantings, meet a minimum plant density requirement, and convert their “front yard first” to encourage the neighborhood effect. As part of these wholesale changes, MWD elected to stop providing turf removal incentive funding for artificial turf to focus on the multiplier effect of California Friendly landscapes.

In 2017, the District also undertook efforts to promote sustainable landscapes with multiple benefits by piloting and launching the NatureScape Turf-to-Native Garden Program, a customer-friendly alternative to the regional turf removal program. NatureScape is a first-of-its-kind program that uses a direct install model to replace grass with beautiful, California native plants and watershed-friendly design features, such as contoured swales that capture rainwater and help protect local creeks and beaches from urban runoff. NatureScape also employs a “front yard first” approach to encourage neighborhood landscape transformation to more natural, multi-benefit gardens.

These programs in combination with the District’s landscape workshops and the CalScape Nursery program have resulted in greater awareness, education, and incentive dollars available to residents to replace their grass with attractive watershed-friendly gardens that promote vibrant, sustainable communities.

DISCUSSION:

The changes to the regional turf removal program implemented by MWD in July 2018 effectively ended turf removal incentive funding for artificial turf across southern California. Moulton Niguel Water District along with a few other local agencies opted to continue providing incentive funding for artificial turf through an arrangement with the Municipal Water District of Orange County. Since artificial turf is no longer within the scope of the regional turf removal program, these agencies assumed the full cost of the incentive without assistance from MWD or MWDOC. Currently the District pays \$3 per square foot in incentive funding toward artificial turf projects.

As a strategic initiative, the District continues to promote California Native landscaping to provide for a healthy watershed through a number of collaborative education and resource efficiency programs, such as the OC Coastkeeper education program, the NatureScape, and the Aliso Creek Watershed collaboration for urban runoff reduction. The value to the District’s customers can be seen through stormwater capture to better use water resources, improved regulatory compliance for our cities, and the increased customer awareness of the homeowner benefits of California Native landscapes. While artificial turf has historically helped the District’s

Turf Removal Incentive Funding

December 18, 2019

Page **3** of **3**

demand management efforts, its use as a turf alternative does not align with the District's more recent programmatic efforts to promote sustainable, watershed-friendly gardens that offer multiple benefits and protect local, natural resources. It is the recommendation of staff that the Board of Directors approve a change to the turf removal program to discontinue incentive funding for artificial turf.



moulton niguel water district

STAFF REPORT

TO: Board of Directors **MEETING DATE:** December 18, 2019

FROM: Drew Atwater, Director of Finance & Water Resources
Lindsey Stuvick, Water Efficiency Manager

SUBJECT: Water UCI Industry-University Cooperative Research Center
(IUCRC)

SUMMARY:

Issue: Key areas of potential water reliability project development include direct potable reuse and proactive research in constituents of emerging concern. Staff request Board consideration to participate in a water industry focused Research Center, led by Water UCI, to research technology to support potential reliability solutions.

Recommendation: It is recommended that the Board of Directors authorize the General Manager or Assistant General Manager to sign the attached contribution agreement with the University of California Irvine (UCI) Foundation supporting the research of Water UCI.

Fiscal Impact: Adequate funds are available in the Water Efficiency Fund.

Reviewed by Legal: Yes

BACKGROUND:

Launched in 2014, Water UCI is an interdisciplinary center intended to facilitate collaboration across UCI faculty, students, and researchers on inter-disciplinary water-related research. Water UCI uses Southern California as a point of departure to engage regional and global stakeholders in tackling challenges facing the world's freshwater such as hydrologic variability, population growth, urbanization, and the energy-water nexus.

Last year, Water UCI applied for grant funding from the National Science Foundation's (NSF) Industry-University Cooperative Research Center (IUCRC) grant program, which provides funding to support industry-relevant, pre-competitive research via multi-member, sustained partnerships across industry, academia, and government. The first submittal was unsuccessful but there was positive feedback in

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Water UCI Industry-University Cooperative Research Center

March 14, 2018

Page 2 of 2

submitting for a second round in 2020. In collaboration with select Orange County water agencies, Water UCI plans to apply in spring 2020 for NSF IUCRC as well as future grant funds to develop a research Center focusing on Water Supply Reliability and Resiliency initiatives. Additionally, based on the expected value of the center, local industry agencies are looking to fund the center regardless of whether or not the NSF grant is successful. Research projects are intended to directly benefit industry partners, but advancements generated through the Center can be applied globally.

Water UCI is structuring the research center identical to the requirements of last year's NSF grant with an Industrial Advisory Board (IAB) composed of delegates from each industry partner. The IAB advises the Center's management on all aspects of the Center, from research project selection and evaluation to strategic planning. Delegates representing industry partners with full funding commitments will also have voting rights on the IAB to set research priorities and share in common ownership of the entire IUCRC research portfolio. However, individual firms can provide additional support for specific "enhancement" projects under separate arrangements. Preliminary research areas of interest focus on coastal reliability objectives including Direct and Indirect Potable Reuse, Storm Water Capture and Reuse, and many other water supply reliability endeavors. The initial research topic of highest priority is focused on evaluating the source of constituents of emerging concern in waste-watersheds which supports the development of potential potable reuse projects.

DISCUSSION:

The University of California, Irvine (UCI) is the largest research university in Orange County that would serve as an ideal host for a research Center focused on Water Reliability and Resiliency. Early participation in this initiative would enable the District to drive research and innovation in areas that align with its long-term planning goals, and further the District's partnerships with research universities that have provided on-going value to date. Regulatory agencies have taken an interest in setting standards for constituents of emerging concern and requiring action for source control. Investing in research will provide objective science to help to better inform future actions and support the District's investments in wastewater reuse towards cost effective reliability solutions for the District's customers.

Three other potential IUCRC industry partners who provided verbal commitments to funding the Center include Santa Margarita Water District, Orange County Water District, and the Irvine Ranch Water District. Should the District commit to being the fourth industry partner, staff is proposing funding at an initial \$30,000 for the first year with the annual consideration by the Board for following years.

Attachment: Contribution Agreement with the University of California Irvine Foundation



UNIVERSITY of CALIFORNIA • IRVINE

FOUNDATION

Contribution Agreement

I. Introduction

The purpose of this Agreement is to summarize the mutual understanding of Moulton Niguel Water District (Donor), the University of California, Irvine Foundation (Foundation), and The Regents of the University of California for the benefit of the Irvine Campus (UCI), collectively referred to as “Parties” regarding an irrevocable contribution (Contribution) in support of Water UCI, an interdisciplinary center in the School of Social Ecology (School). This Agreement will be made a part of the Foundation’s and UCI’s records and is intended as a guide to those who will administer the fund in the future.

II. University of California, Irvine Foundation

The Foundation represents that it is qualified as a charitable organization described in Section 501(c)(3) and as a public charity under 170(b)(1)(A) of the Internal Revenue Code. (Federal ID 95-2540117).

III. Description of the Contribution

The Donor hereby irrevocably pledges a total of \$30,000 to the Foundation. The pledge will be fulfilled on or before June 30, 2020. Upon review of the outcome of research activities made possible through this contribution, the Donor may choose to fund an additional year or years using the same conditions as set forth in this Contribution Agreement.

The Donor acknowledges that they are not placing any restrictions on the timing or schedule of the expenditures related to these funds. Payments will be made in money or in marketable securities acceptable to the Foundation. If payments are made with stock, the securities will be transferred to an account in the name of the Foundation. The value of the Contribution will be established on the date of transfer of the stock. The Foundation is authorized to sell the stock as soon as it is determined to be prudent. The proceeds from the sale of the stock will be invested in accordance with the investment policies of the Foundation.

IV. Purpose and Administration of the Fund

The purpose of the Contribution is to provide current-use support for research within Water UCI through the Industry University Cooperative Research Center (IUCRC), currently being overseen by David Feldman, Ph.D. The funds will be pooled with contributions from additional IUCRC member agencies and distributed to researchers identified and chosen through a competitive proposal process overseen by a committee comprised of Water UCI and IUCRC member agencies.

The results of all funded research projects are to be made publically available and eligible for publication in peer-reviewed journals. IUCRC member agencies will be granted the opportunity to review research results prior to public release to ensure required anonymization of data.

The Donor understands that the Contribution will be administered in accordance with the University of California and UCI’s administrative guidelines and procedures, and will be subject to administrative fees applicable for contributions to the campus.

V. Future Considerations

The Foundation and UCI are grateful for the Donor's support of the campus and are committed to fulfilling the Donor’s objectives reflected in this Agreement. As research and academic programs move forward, there is the possibility that it may become impracticable for this Contribution to serve the specific purpose of the stated intentions. If this unlikely circumstance should occur, UCI will consult with the Donor, if possible, and the UCI Chancellor will direct that the Contribution be devoted to UCI purposes that the Chancellor deems to be most consistent with the Donor's wishes.

VI. Recognition

UCI may publish the name of the Donor in various publications, press releases, and publicity vehicles. For recognition purposes related to this Agreement, the Donor will be identified as “Moulton Niguel Water District.”

In recognition of this Contribution, the Donor shall be recognized as a member of Water UCI’s Industry-University Research Partners program.

VII. Binding Obligation

The Donor intends this Contribution Agreement to be fully enforceable to the extent that the obligation has not been satisfied by contributions completed following the date of this Agreement.

Miscellaneous

- a) Situs: This Agreement is executed in and will be governed by the laws of the state of California.
- b) Entire Agreement: This Agreement constitutes the entire understanding of the Parties concerning the terms of this Contribution.
- c) Amendment: This Agreement may be amended at any time by written agreement signed by each party.
- d) Date: The effective date of this Agreement will be the date this Agreement is fully executed.

For the Donor:

For UCI and the Foundation:

Name
Title

Date

Brian T. Hervey, CGPP, CFRE Date
Vice Chancellor, University Advancement and
Alumni Relations
President, UCI Foundation

In Acknowledgement for the School:

Nancy Guerra, Ed.D.
Dean

Date



moulton niguel water district

STAFF REPORT

TO: Board of Directors **MEETING DATE:** December 18, 2019

FROM: Rod Woods, Director of Engineering
Alex Thomas, Principal Engineer

SUBJECT: Construction Contract Award for Recycled Water Distribution System Improvements

SUMMARY:

Issue: Board action is required for the Notice Inviting Sealed Bids for the RWOS Miscellaneous Distribution System Improvements, Project No. 2018.003.

Recommendation: It is recommended that the Board of Directors award the construction services contract to Ferreira Construction in the amount of \$588,130; authorize the General Manager or Assistant General Manager to execute the contract; and to approve change orders up to 10% of the contract value.

Fiscal Impact: Project No. 2018.003 is budgeted in Fund 6, Water Efficiency, with a current project budget of \$585,000. The proposed project budget is \$746,943. Sufficient funds are available in Fund 6; the overall Fiscal Year 2019-20 CIP budget for Fund 6 is \$4,742,500.

Reviewed by Committee: Yes, recommended for approval at the Technical Committee Meeting on December 2, 2019.

Reviewed by Legal: Yes

BACKGROUND:

The District recently completed the Recycled Water Optimization Study (RWOS) which identified three segments of existing recycled water distribution system piping that need to be upsized. Two of the pipeline segments are located in the City of Mission Viejo within the 850 pressure zone. One pipeline segment is located in the City of Aliso Viejo within the 650 pressure zone. These pipeline segments are experiencing higher than recommended velocities from recycled water flow as a result of increased demand in the recycled water distribution system. Upsizing these pipeline segments will increase

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Construction Contract Award for Recycled Water Distribution System Improvements

December 18, 2019

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the capacity which will reduce the velocity through the pipelines to acceptable levels and increase the amount of recycled water available to serve more customers.

The scope of work for this project will be to: replace 660 linear feet of 6-inch diameter pipe with 8-inch diameter pipe on Carrillo Street in the City of Mission Viejo; replace 530 linear feet of 6-inch diameter pipe with 12-inch diameter pipe on Via Linda Street in the City of Mission Viejo; and replace 150 linear feet of 12-inch diameter pipe with 16-inch diameter pipe on Pacific Park Drive in the City of Aliso Viejo. All associated pipeline appurtenances will also be replaced.

Construction documents for the project were prepared by AKM Consulting Engineers utilizing the on-call engineering services agreement. A statutory exemption was prepared in accordance with State CEQA Guidelines and a Notice of Exemption was filed with Orange County on November 30, 2018.

DISCUSSION:

A request for bids was issued to five qualified contractors. The District received five sealed bids for the subject contract on November 25, 2019. The table below summarizes the bids received:

Firm	Bid
Ferreira Construction	\$588,130
EJ Meyer	\$650,000
TE Roberts	\$690,131
Paulus Engineering	\$787,334
Shoffeitt Pipeline	\$859,995
Engineer's Estimate	\$639,710

Staff has determined that the lowest responsible and responsive bidder was Ferreira Construction. Staff has completed its review of the contract documents and has determined that they are in order. Ferreira Construction has performed quality work for the District in the past and is well-qualified to perform this type of work.

As such, staff is recommending that the Board of Directors award the construction services contract to Ferreira Construction in the amount of \$588,130, including a contingency of 10% of the contract value.

Construction Contract Award for Recycled Water Distribution System Improvements

December 18, 2019

Page 3 of 3

SUMMARY OF PROJECT BUDGET:

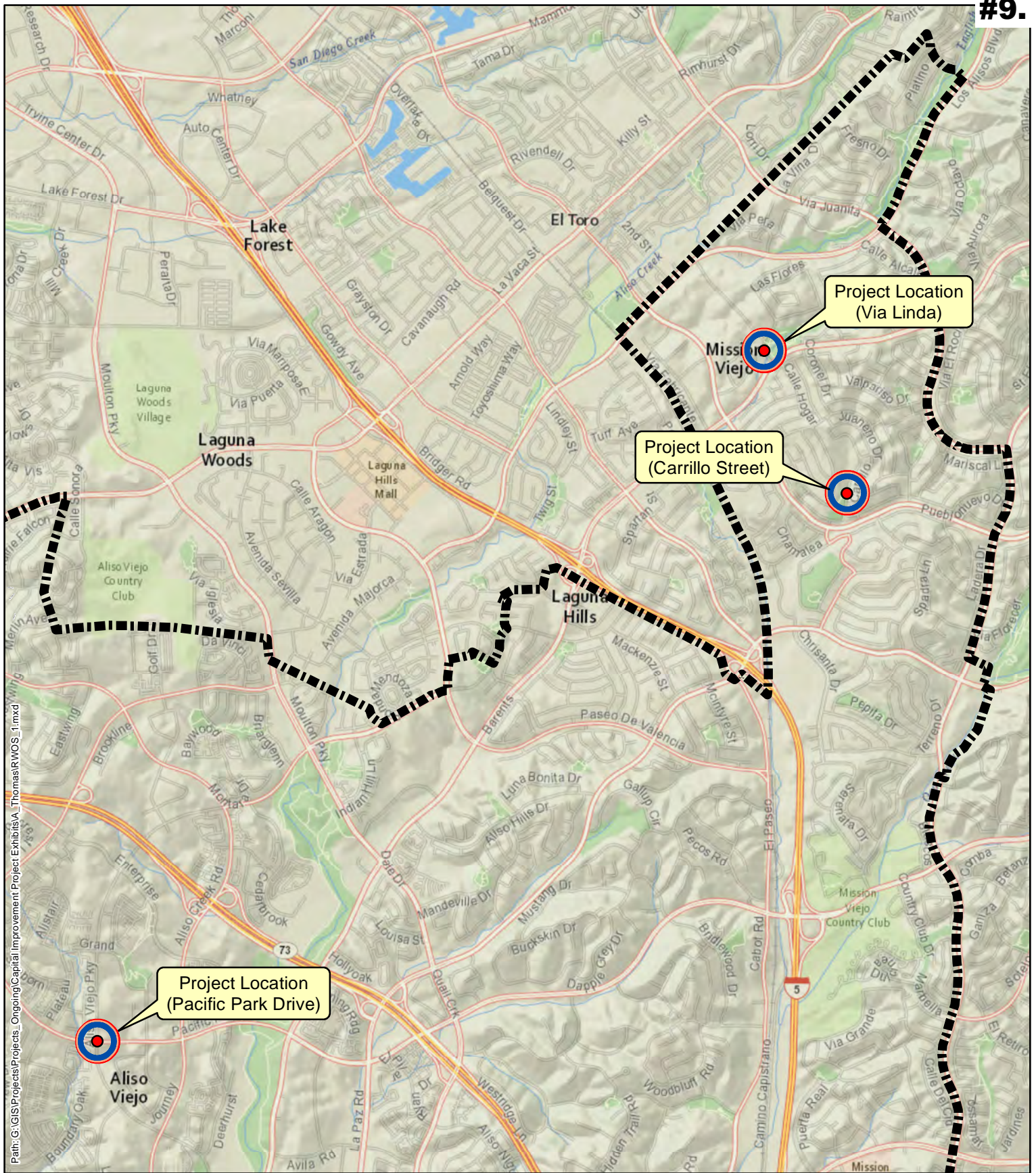
	Project Budget*	Proposed / Approved Contract	Proposed / Authorized Contingency	Total Proposed / Authorized Amount
Project Items				
Engineering	\$80,000	\$80,000	\$0	\$80,000
Construction Contract	\$485,000	\$588,130	\$58,813	\$646,943
Legal, Permits, District Labor	\$20,000	\$20,000	\$0	\$20,000
Totals	\$585,000	\$688,130	\$58,813	\$746,943

*\$56,574.39 has been expended to date.

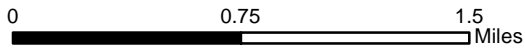
Currently Proposed Amount

Attachments:

1. Exhibit A – Location Map
2. Exhibit B – Vendor Contact List



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Scale = 1:40,000

Exhibit "A" Location Map
Recycled Water Distribution System Improvements
Contract No. 2018.003

Exhibit "B" Vendor Contact List

Company Name	Company Address	Contact Person	Telephone #	E-Mail
Ferreira Construction	10370 Commerce Center Dr., Suite B-200 Rancho Cucamonga, CA 91730	Bree Scott	(909) 606-5900	bscott@ferreiraconstruction.com
Paulus Engineering	2871 E. Coronado St. Anaheim, CA 92806	Jason Paulus	(714) 632-3975	jpaulus@paulusengineering.com
EJ Meyer Company	P.O. Box 277 Highland, CA 92346	Kristian Corona	(909) 425-4025	kcorona@ejmeyer.com
TE Roberts	306 W. Katella Ave., Unit B Orange, CA 92867	Tim Roberts	(714) 669-0072	troberts@teroberts.com
Shoffeitt Pipeline	15801 Rockfield Blvd., Suite L Irvine, CA 92618	John Shoffeitt	(949) 581-1600	john@shoffeittpipeline.com

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moulton niguel water district

STAFF REPORT

TO: Board of Directors **MEETING DATE:** December 18, 2019

FROM: Rods Woods, Director of Engineering
Megan Emami, Development Services Specialist

SUBJECT: Water Supply Assessment for the Laguna Niguel Town Center

SUMMARY:

Issue: Board action is necessary to consider the Water Supply Assessment (WSA) for the Laguna Niguel Town Center Project.

Recommendation: It is recommended that the Board of Directors approve the December 2019 WSA for the Laguna Niguel Town Center Project as prepared by Dudek.

Fiscal Impact: None. The Developer of the Project will refund the expense associated with preparation of the WSA.

Reviewed by Committee: Provided as an informational item to the Technical Committee on December 2, 2019.

Reviewed by Legal: Yes

BACKGROUND:

The Laguna Niguel Town Center Project proposes to develop the old Orange County courthouse site adjacent to the Laguna Niguel City Hall into a mixed use commercial and residential complex. Approximately 206,500 square feet is planned for the commercial space, including space for restaurants, retail, offices, and a library. The residential use will consist of 275 multi-family residential apartments.

In September 2019, the Laguna Niguel Town Center Partners LLC (Developer) submitted an application to the District for the preparation of a WSA for the Laguna Niguel Town Center Project. Per Water Code section 10910 et seq. (commonly

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Water Supply Assessment for the Laguna Niguel Town Center

December 18, 2019

Page 2 of 2

referred to as Senate Bill 610), the District has 90 days to complete the WSA for the project.

In response to this legal requirement, the District's Board adopted Resolution No. 05-01 to provide the process for the preparation of the WSAs. As part of the process, the applicant must assume cost responsibility for the preparation of the WSA. The application includes indemnification clauses and stipulates that the WSA is not to be construed as a "will serve".

DISCUSSION:

The District retained Dudek to prepare the WSA in accordance with Sections 10910 and 10911 of the California Water Code. In the preparation of the WSA, Dudek followed the methodologies required by the applicable sections of the Public Resources Code and the California Water Code. This project was reviewed with the Technical Committee as an information item on October 7, 2019 and again on December 2, 2019 to introduce the scope of the project and the requirements to prepare a WSA.

The WSA found that there are sufficient and reliable water supplies to meet the demands of the Laguna Niguel Town Center Project. Based on the analysis performed by Dudek, the project will increase District water demands by 146 acre-feet per year, or 0.6 percent of current water demands. In addition, existing District infrastructure is adequate to provide the estimated overall water demand to the area. When specific improvement plans and requirements are submitted to the District, local infrastructure will be reviewed for fire flow requirements, sewer loading, and recycled water use.

Attachments:

1. Exhibit A- Location Map
2. Exhibit B- Laguna Niguel Town Center Water Supply Assessment



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Scale = 1:3,000

**Exhibit "A" Location Map
Laguna Niguel Town Center
Water Supply Assessment**

Moulton Niguel Water District Town Center Water Supply Assessment

Prepared for:

Moulton Niguel Water District

26880 Aliso Viejo Parkway
Aliso Viejo California 92656

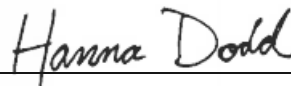
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Acronyms and Abbreviations

AF	acre-feet
AFY	acre-feet per year
AWMA	Aliso Water Management Agency
BDCP	Bay Delta Conservation Plan
AMP	Allen-McColloch Pipeline
cfs	cubic feet per second
CDR	Center for Demographic Research
CRA	Colorado River Aqueduct
CIP	Central Intertie Pipeline
DU	dwelling unit
EOCF#2	East Orange County Feeder Number 2
EIR	Environmental Impact Report
ET _o	Evapotranspiration
ETWD	EI Toro Water District
GPCD	gallons per capita per day
HBDP	Huntington Beach Desalination Project
gpd	gallons per day
JTM	Joint Transmission Main
JRWSS	Joint Regional Water Supply System
ksf	thousand square feet
MNWD	Moulton Niguel Water District
MWDOC	Municipal Water District of Orange County
Project	Town Center Project
QSA	Quantification Settlement Agreement
SB	Senate Bill
SCP	South County Pipeline
SCWD	South Coast Water District
SMWD	Santa Margarita Water District
sq. ft.	square feet
SWP	State Water Project
TM	Technical Memorandum
UWMP	Urban Water Management Plan
WSA	Water Supply Assessment
WTP	water treatment plant

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Executive Summary

In 2019, the City of Laguna Niguel (Lead Agency), determined that the Town Center Project (Project) proposed by Laguna Niguel Town Center Partners (project applicant) qualified as a “project” as defined by the California Water Code section 10912 and requested Moulton Niguel Water District (MNWD) to prepare a Water Supply Assessment (WSA) to satisfy the requirements of Water Code sections 10910, et seq., commonly referred to as Senate Bill (SB) 610. Generally, the WSA must address whether the total projected water supplies available to MNWD over the next 20 years during normal, single-dry, and multiple-dry years will be sufficient to meet the demand projected for the proposed Project in addition to MNWD’s existing and planned future uses.

The Project proposes to develop the old Orange County courthouse site (Site) adjacent to the Laguna Niguel City Hall into a mixed use commercial, office, library and residential development. The Project is expected to be completed by the end of 2023. The Project will result in a net increase in water demand from MNWD’s residential, commercial, and landscape irrigation customer sectors. The Project will also result in a net increase of 8 AFY of potable water demand when compared with the Agora Arts District Downtown project formerly proposed for the Site (ARCADIS’ Agora Arts District Downtown WSA, April 2016). The Agora Art District Downtown project demand was incorporated into the 2015 MNWD Urban Water Management Plan (UWMP). The Project is proposing to add 275 multi-family residential apartments. These residential units will generate approximately 55 acre-feet per year (AFY) of potable water demand. Commercial (non-residential) buildings will generate approximately 91 AFY of potable water demand, mainly as a result of adding restaurants. The Project will have approximately 194,644 sq. ft. (4.46 acres) of landscape areas, with an associated recycled water irrigation demand of approximately 12 AFY.

In accordance with the foregoing and the standards set forth by SB 610, this WSA concludes that the total projected water supplies available to MNWD during normal, single-dry, and multiple-dry water years over the next 20 years will be sufficient to meet the projected water demands for the proposed Project, in addition to MNWD’s existing and planned future uses.

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1 Introduction

This section provides background information on the proposed Town Center Project (Project) and the requirements of Water Code section 10910, et seq., commonly referred to as Senate Bill (SB) 610, for developing a Water Supply Assessment (WSA) by the public water supplier. This section also provides a brief overview of the Moulton Niguel Water District (MNWD), the public water supplier that will be supplying water to the proposed Project.

1.1 Town Center Project

The Project proposes to develop the old Orange County courthouse site adjacent to the Laguna Niguel City Hall into a mixed use commercial and residential development. Approximately 206,500 sq. ft. is planned for the commercial space, including space for restaurants, retail, offices, and a library. The residential use will consist of 275 multi-family residential apartments. The Project conceptual site plan is shown on Figure 1-1.

Figure 1-1: Town Center Downtown Concept Site Plan (MNWD, October 2019)



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1.2 Water Supply Assessment Requirement

Effective January 1, 2002, SB 610 was signed into law, requiring the preparation of a WSA for certain types of development projects subject to CEQA review. Section 10912(a) of the Water Code defines a “project” for which a WSA must be prepared as any of the following:

1. A proposed residential development of more than 500 dwelling units.
2. A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
3. A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
4. A proposed hotel or motel, or both, having more than 500 rooms.
5. A proposed industrial, manufacturing, or processing plant or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor space.
6. A mixed-use project that includes one or more of the projects specified above.
7. A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.¹

The City of Laguna Niguel (Lead Agency) has determined that a WSA is required for this Project because it constitutes the type of development defined as a “project” under Water Code section 10912 (above). As the Project is within MNWD’s service area, the City contacted MNWD and requested the preparation of a WSA. As noted above, the WSA must address whether the total projected water supplies available to MNWD for the next 20 years during normal, single-dry, and multiple-dry years will be sufficient to meet the demand projected for the proposed Project in addition to MNWD’s existing and planned future uses.

A review of MNWD’s most recently adopted Urban Water Management Plan of 2015 revealed that projected demands associated with the Project were not accounted for, though, a similar development project (i.e. the Agora Arts District Downtown project) had been accounted for at this project location. The Agora Arts District Downtown project was expected to generate 27 AFY of residential potable water demand, 112 AFY of non-residential potable water demand, and 2.2 AFY of recycled water demand (ARCADIS’ Agora Arts District Downtown WSA, April 2016). Therefore, the differences between the Project’s water demands and the Agora Arts District Downtown project’s water demands will result in a net increase of 8 AFY of potable water and 10 AFY of recycled water. This net increase in water demand is in Table 3-8 and Section 4 of this report.

¹ Certain other “projects” require the preparation of a WSA if the public water system has fewer than 5,000 service connections. (See Water Code § 10910(b).)

1.3 Moulton Niguel Water District

MNWD was formed on November 16, 1960, under the provisions of the California Water District Law, Division 13, section 34000, et seq., of the California Water Code. Prior to the formation of the water district, the lands within the service area were primarily utilized for livestock grazing, with a small area devoted to citrus and field crop production limited by the lack of adequate local water supplies. MNWD was initially formed by local ranchers in order to secure a reliable water supply for their herds.

MNWD now provides water, recycled water, and wastewater service to more than 170,000 people within a service area covering portions of six cities in southern Orange County: Aliso Viejo, Dana Point, Laguna Hills, Laguna Niguel, Mission Viejo, and San Juan Capistrano.

All potable water served by MNWD is imported from the Metropolitan Water District of Southern California (Metropolitan) through its member agency, the Municipal Water District of Orange County (MWDOC).

MNWD's recycled water supply is locally sourced and has steadily increased to account for 18 percent of the overall water supply in the service area. MNWD's water supplies and demands are described in more detail in Sections 2 and 3, respectively.

2 Water Supplies

This section describes existing water supply sources and quantifies supplies available to meet MNWD's water demands. Additionally, this section provides an overview of MNWD's potential future supply sources currently under development and quantifies the water supplies projected to be available to MNWD in the next 20 years.

2.1 Existing Water Supplies

All of MNWD's potable water supply is imported water from Metropolitan through MWDOC. Treated imported potable water comes from the Robert B. Diemer (Diemer) Filtration Plant located north of Yorba Linda of the Baker WTP.

Through the 2017/18 fiscal year, treated, imported water represented about 82 percent of MNWD's total water supply. The other 18 percent is (non-potable) recycled water used for landscape irrigation. MNWD is a member of the San Juan Basin Authority (SJBA); however, none of MNWD's supplies are produced from the San Juan Basin. Table 2-1 shows MNWD's historical water supply and use from 1990 to 2015 (according to fiscal years July 1 to June 30).

Table 2-1: Historic Water Supplies

Water Supply Sources	Fiscal Year Ending Supply (AFY)					
	1990	1995	2000	2005	2010	2015
MWDOC (Treated Water)	30,743	32,540	38,040	32,230	29,491	26,824
Recycled Water	165	1,884	5,670	6,402	6,858	7,988
Total	30,908	34,424	43,710	38,632	36,349	34,812

2.1.1 Existing Water Rights and Imported Supplies

Table 2-2 provides a summary of existing water rights and entitlements to imported supplies available to MNWD, including a supply from the Baker Water Treatment Plant (WTP) described in Section 2.2.3. MNWD owns capacity rights to regional pipelines that convey imported water from Metropolitan's facilities to MNWD. However, capacity rights in pipelines do not guarantee supply, which is subject to availability from Metropolitan and MWDOC. Additionally, as a matter of practice, Metropolitan does not provide annual contractual entitlements or specific allotments of imported water to its member agencies such as MWDOC or to the local agencies that are supplied by Metropolitan's member agencies. Instead, Metropolitan uses a regional framework whereby its member agencies annually advise Metropolitan how much water they anticipate they will need during the next five years, and an ongoing process is employed by Metropolitan and its member agencies to develop a forecast of future water demands. Through a comprehensive planning process, Metropolitan calculates regional demand projections and, together with information about existing and proposed local projects and effects of conservation, determines the amount of imported and other supplies to secure to meet the demands of its member agencies. Based on this approach, Metropolitan is able to fulfill delivery requests from its member agencies such as MWDOC, and MWDOC is able to fulfill the delivery requests from its water agency members such as MNWD.

Metropolitan's ability to ensure water supply availability and reliability to its member agencies is based in part on its Water Surplus and Drought Management Plan (WSDM). Metropolitan developed and adopted the WSDM Plan

to provide policy guidance and manage regional water supply actions under both surplus and drought conditions to achieve the overall goal of ensuring water supply reliability to its member agencies as set forth in Metropolitan's Regional UWMP and Integrated Water Resources Plan (IRP). The WSDM Plan outlines various water supply conditions and corresponding actions Metropolitan may undertake in response to moderate, serious and extreme water shortages. Under Condition 1, Metropolitan issues a Water Supply Watch and encourages local agencies to implement voluntary dry-year conservation measures and utilize regional storage reserves. Under Condition 2, Metropolitan issues a Water Supply Alert and calls for cities, counties, its member agencies and all other retail water providers to implement extraordinary conservation through drought ordinances and other measures to minimize the use of storage reserves. Under Condition 3, Metropolitan may implement its Water Supply Allocation Plan (WSAP), which allocates available water supplies among its member agencies based on factors such as impacts to retail customers, population and projected growth of particular member agencies, the availability of recycled water and other local supplies, conservation efforts, and other factors. At times when the WSAP is implemented, Metropolitan member agencies do not lose their ability to receive any particular amount of imported water supplies, but instead Metropolitan places limits on the amount of water its member agencies can purchase without facing a surcharge. In turn, MWDOC has also developed a WSAP to allocate imported supplies at the retail level in Orange County. Under these WSAPs, the availability of imported water supplies is based primarily on the need for imported supplies relative to the total need for those supplies within the Metropolitan and MWDOC service areas.

The IRP 2015 Update, developed by Metropolitan, incorporates a balanced approach to stabilize traditional imported water supplies while continuing to evolve local supplies to assure 100% reliability for full-service demands at the retail level. The IRP establishes regional targets for conservation, local supplies, State Water Project (SWP) supplies, Colorado River supplies, groundwater banking and water transfers. The 2015 update to the IRP observes long-term planning for additional future resources, such as storm water capture and seawater desalination, to minimize water shortages and restrictions.

The IRP incorporates three elements to achieve a balance in resource planning:

1. Planning for the future comes with uncertainty as unforeseeable challenges and risks may occur. Metropolitan considers positive and negative situations to analyze in what way supplies can affect future circumstances. The IRP development process provided Metropolitan an opportunity to observe potential challenges and risks identifying nearly 200,000 acre-feet of additional water conservation and supplies.

2. Water agencies develop plans to analyze and prepare for future water supply. Future Supply Actions are necessary actions to prepare for water supply conditions that differ from the original plan, such as water-saving technologies, land acquisition, and new supply alternatives. This action will allow agencies to consider innovative and cost-effective water alternatives for an unforeseeable future.

3. Adaptive water management is an approach for water purveyors to better prepare for the agency's future. Although strategies are established in the present, adaptive management is a quick and cost-effective method for unanticipated events. A history of drought-related supply shortages provoked Metropolitan to seek alternative supplies despite the long-term water strategy established within Southern California.

Using this balanced approach will help ensure that the Southern California region will have adequate supplies to meet future demands while adapting to evolving conditions.

The resource targets for Metropolitan’s UWMP include the 2015 IRP Update and planned supply and demand projections developed in collaboration with member agencies. Metropolitan’s UWMP contains a water supply reliability assessment that includes a detailed evaluation of the supplies necessary to meet demands over a 25-year period in average, single-dry year, and multiple-dry year periods.

Metropolitan is prioritizing the development of water supply reliability, taking into consideration the current supplies available from the SWP and actions taken to ensure a reliable water supply. The 2015 IRP provides an informative discussion regarding reliable water supply to the year 2040

In response to prolonged drought conditions, in April 2015 Metropolitan declared a Condition 3 shortage and decided to implement its WSAP with the goal of achieving a 15 percent reduction in regional deliveries to its member agencies starting on July 1, 2015. Importantly, Metropolitan has confirmed that implementation of its WSAP merely involves the potential application of a surcharge to those member agencies whose deliveries of water from Metropolitan exceed their allocations, but it does not otherwise prohibit or restrict such deliveries. (Metropolitan WSAP Staff Report, pp. 3-6.)

Table 2-2 lists the highest amount of imported water that MNWD has purchased from MWDOC during the period of FY 2010-11 to FY 2014-15.

Table 2-2: Existing Water Rights and Supply Sources²

Existing Supply	Amount (AFY)	Availability	Right	Contract	Ever Used
MWDOC [1]	29,036	X		X	Yes
Recycled Water [2]	12,769	X	X		Yes
Baker WTP [3]	9,400	X		X	Yes

[1] Based on the highest amount purchased during FY 2010-11 to FY 2014-15.

[2] Combined FY2017-18 recycled water supply capacity from SOCWA JRTP and Plant 3A (two active plants) are 9 and 2.4 MGD.

[3] MNWD has capacity rights of 13 cfs (9,400 AFY) in Baker Water Treatment Plant. Baker WTP offsets and reduces amount of purchased Metropolitan treated water from the Diemer Filtration Plant.

2.1.2 Imported Water Deliveries

In FY 2017-18, MNWD received 25,689 AFY of imported water from Metropolitan/MWDOC. MNWD received 23,917 AFY of imported water for FY 2018-19. Metropolitan’s principal water sources originate from the Colorado River via the Colorado River Aqueduct and from Northern California through the State Water Project (SWP). For purposes of delivery to MNWD, these raw water sources are treated at the Diemer Filtration Plant located north of Yorba Linda. Typically, the Diemer Filtration Plant receives a blend of Colorado River water from Lake Mathews through Metropolitan’s Lower Feeder and SWP water through the Yorba Linda Feeder. MNWD also receives treated water from the Baker WTP. The Baker WTP receives imported water from Metropolitan and Irvine Lake water. Irvine Lake is supplied with untreated water from Metropolitan and local surface runoff.

MNWD has service connection agreements with Metropolitan’s member agency, MWDOC. These agreements entitle MNWD to receive water from available Metropolitan sources via the regional transmission system located in Orange County. MWDOC delivers water from Metropolitan in the amount requested by MNWD, subject to capacity limitations of the service connections and the capacity limits of MNWD in the pipelines. The water is conveyed to MNWD through two Metropolitan-operated transmission mains, the East Orange County Feeder No.2 (EOCF #2) and the Allen-McColloch

² Modified version of Table 2-2 in ARCADIS’ Agora Arts District Downtown WSA (April 2016)

Pipeline (AMP). MNWD has two service connections to the AMP and nine service connections to the Joint Regional Water Supply System (JRWSS) which is directly supplied from the EOCF #2.

Although pipeline capacity rights do not guarantee the availability of water, pipeline capacity does provide the ability to convey water when it is available from Metropolitan sources to the MNWD system and, therefore, demonstrates not only water supply reliability, but also physical delivery system reliability. All imported water supplies assumed in this document are available to MNWD from existing infrastructure.

Allen-McColloch Pipeline and South County Pipeline – The AMP is the primary supply line of imported water from the Diemer Filtration Plant with a terminus in the northern section of Mission Viejo. Metropolitan owns and operates the AMP. MNWD’s capacity ownership coming through the AMP, expressed as rate of flow, is 35.1 cubic feet per second (cfs) or 25,430 acre-feet per year. The Agreement for Sale and Purchase of Allen-McColloch Pipeline (Metropolitan Agreement No. 4623) among Metropolitan, MWDOC, MWDOC Water Facilities Corporation and certain other identified participants, including MNWD, dated July 1, 1994 (the AMP Sale Agreement) requires Metropolitan, among other things, to meet MNWD’s requests for water deliveries (subject to the availability of water from Metropolitan). The AMP Sale Agreement further requires Metropolitan to augment/increase capacity necessary to meet MNWD projected ultimate service area water demands and other undeveloped lands within MNWD. The South County Pipeline (SCP) conveys water from the AMP to MNWD, Santa Margarita Water District, SCWD, City of San Juan Capistrano, and City of San Clemente. MNWD obtains flow from the SCP at MNWD’s takeout (SC-2) and delivers flow to Laguna Hills, Mission Viejo, Laguna Niguel, and Aliso Viejo via the Central Intertie Pipeline (CIP).

East Orange County Feeder No. 2, Joint Transmission Main, and Eastern Transmission Main – The EOCF #2 is a pipeline jointly owned by several local agencies (City of Anaheim, City of Santa Ana, and MWDOC) and Metropolitan, which operates it. The Joint Transmission Main (JTM) conveys imported water from the EOCF#2 to south Orange County. The JTM is jointly owned by MNWD, Irvine Ranch Water District (IRWD), El Toro Water District (ETWD), City of San Juan Capistrano, City of San Clemente, and South Coast Water District (SCWD). The JTM is operated under a contract by SCWD. Originally, MNWD had 45 cfs capacity in the JTM and EOCF #2 but later transferred 2 cfs capacity to ETWD with the de-annexation of Improvement District No. 1 in 1985. MNWD currently has 43 cfs, or 31,150 acre-feet per year of capacity rights in the Joint Regional Water Supply System (JRWSS). MNWD owns 10 cfs (7,244 AFY) of capacity in the Eastern Transmission Main (ETM) which begins as a branch off the JTM near Moulton Parkway and Laguna Hills Drive.

2.1.3 Recycled Water

In 1984, MNWD constructed a 0.6 MGD Advanced Wastewater Treatment Plant (AWT) at the Aliso Water Management Agency (AWMA) plant in Laguna Niguel, currently known as SOCWA Joint Regional Wastewater Treatment Plant (JRTP). This tertiary treatment facility originally produced approximately 350 AFY of water for irrigation at the El Niguel Country Club in Laguna Niguel. In 1989, the AWT facility was expanded from 0.6 to 2.4 MGD of tertiary treatment capacity to service the El Niguel Country Club, Crown Valley Community Park, Laguna Niguel Regional Park, and several greenbelt areas within the City of Laguna Niguel. In 1996, MNWD constructed a second AWT at the JRTP with a capacity of 9 MGD along with an underground recycled water storage tank.

In 1991, MNWD constructed a 2.4 MGD AWT facility at Plant 3A to provide recycled water for irrigation use. This expanded MNWD’s recycled water supply capacity to provide maximum-month demands for its recycled water distribution system.

The recycled water distribution system is able to serve recycled water from two water reclamation plants, including: MNWD Plant 3A AWT and SOCWA JRTP, as well as the SCWD which is interconnected to the MNWD distribution system via a storage reservoir.

MNWD currently has 11.4 MGD of tertiary treatment capacity in compliance with Title 22 Recycled Water requirements. MNWD has 9 MGD capacity in the SOCWA JRTP and 2.4 MGD (2,688 AFY) in Plant 3A. MNWD also has 1,000 AF of seasonal storage in the Upper Oso recycled water reservoir for its recycled water distribution system.

In FY 2017-18, MNWD's tertiary-treated recycled water supplies included 6,098 AFY from the JRTP and 1,680 AFY from Plant 3A.

2.2 Projected Future Supplies

While imported water from Metropolitan will continue to meet the majority of MNWD's demands over the next 20 years, MNWD's supply portfolio is changing in a way that will reduce reliance on imported supplies and increase the use of local recycled supplies through planned expansion of MNWD's recycled water distribution system.

MNWD's projected water supplies from 2018 to 2040 are summarized in Table 2-3.

Table 2-3: Projected Water Supply Sources

Water Supply Sources [1]	Fiscal Year Ending Supply (AFY)					
	2018 [3]	2020	2025	2030	2035	2040
MWDOC (Treated Water)	25,689	23,418	24,768	25,540	26,005	26,005
Baker WTP (Treated Water) [2]	9,400	9,400	9,400	9,400	9,400	9,400
Recycled Water Available	7,778	8,111	10,010	9,998	9,986	9,986
Total	42,867	40,929	44,178	44,938	45,391	45,391

[1] 2020 to 2040 total supply projections are from MNWD's 2015 draft UWMP Table 6-2.

[2] Baker WTP supply offsets and reduces purchased Metropolitan treated water from Diemer Filtration Plant.

[3] Actual data for FY 2017-18

2.2.1 Imported Water

Metropolitan's 2015 UWMP reports on its water supply availability and reliability and identifies projected supplies to meet the long-term demand within its service area. The 2015 UWMP, which is incorporated herein by reference, provides comprehensive information and analyses regarding Metropolitan's supply capacities from 2020 through 2040 under the three hydrologic conditions specified in the UWMP Act: average year, single dry-year, and multiple dry-years.

Colorado River Aqueduct (CRA) supplies include supplies that would result from existing and committed programs and from implementation of the Quantification Settlement Agreement (QSA) and related agreements to transfer

water from agricultural agencies to urban uses. Colorado River transactions are potentially available to supply additional water up to the CRA capacity of 1.25 million acre-feet (AF) on an as-needed basis.^{3,4}

Metropolitan's SWP supplies have been impacted by the ongoing restrictions on SWP operations in accordance with the biological opinions of the U.S. Fish and Wildlife Service and National Marine Fisheries Service issued on December 15, 2008 and June 4, 2009, respectively (Metropolitan's 2015 UWMP, June 2016). The Drought Operations Plan prepared on April 8, 2014 lays out the proposed operations and conditions of the SWP during multiple dry years to maximize regulatory flexibility while remaining within the boundaries of existing law and regulations (U.S. Bureau of Reclamation, April 2014). In dry, below-normal conditions, Metropolitan has increased the supplies received from the California Aqueduct by developing flexible Central Valley/SWP water storage and transfer programs. The goal of the storage/transfer programs is to develop additional dry-year supplies that can be conveyed with available storage and pumping capacity to maintain deliveries through the California Aqueduct during dry hydrologic conditions and regulatory restrictions.

On October 21, 2019, the U.S. Fish and Wildlife Service and National Marine Fisheries Service issued new biological opinions for continued coordinated SWP and Central Valley Project operations, which provide greater flexibility to manage the projects based on real-time conditions and real-time monitoring of fish species. DWR is currently seeking a permit from the California Department of Fish and Wildlife to operate the SWP in a way that protects fish in compliance with the California Endangered Species Act. DWR issued a Draft Environmental Impact Report for Long-Term Operation of the California SWP on November 21, 2019. Similar to the federal biological opinions, the proposed project allows for greater flexibility in managing the SWP based on real-time management. The State of California has announced an intent to sue the federal government over the 2019 biological opinions but has not specified the nature of that suit or when it may file it. While these developments create some uncertainty regarding future supplies, that uncertainty is currently speculative and has yet to impose any actual operational constraints on the SWP that would affect Metropolitan's supplies. Further, both the State and federal permits and proposed action incorporate new science and seek greater flexibility for SWP operations than provided under the 2008 and 2009 biological opinions.

State and federal resource agencies and various environmental and water user entities are currently engaged in developing a plan to modernize Delta conveyance (formerly known as California WaterFix, EcoRestore, the Bay Delta Conservation Plan), aimed at addressing Delta ecosystem restoration, water supply conveyance, and flood control protection and storage development. As directed by Governor Newsom in 2019 and building on work already conducted, DWR rescinded the twin tunnel WaterFix program and is pursuing a new environmental review and planning process for a single tunnel solution to modernize Delta conveyance. This approach is consistent with the Governor's April 2019 Executive Order N-10-19 directing state agencies to develop a portfolio of statewide water actions and investments. Modernizing Delta conveyance paired with complementary projects that improve water recycling, recharge depleted groundwater reserves, strengthen existing levee protections and improve Delta water quality will help ensure a resilient water supply for Metropolitan, MWDOC, and the MNWD.

Storage is a major component of Metropolitan's dry year resource management strategy. Metropolitan's likelihood of having adequate supply capability to meet projected demands, without implementing its WSAP, is dependent on its storage resources. In developing the supply capabilities for the 2015 UWMP, Metropolitan assumed a simulated median storage level going into each of five-year increments based on the balances of supplies and demands.

³ Pp. 3-2 of Metropolitan's 2015 UWMP (June 2016).

⁴ Irvine Lake is supplied with untreated water from Metropolitan and local surface runoff.

Metropolitan evaluated supply reliability by projecting supply and demand conditions for the single- and multi- year drought cases based on conditions affecting the SWP (Metropolitan's largest and most variable supply). For this supply source, the single driest-year was 1977 and the three-year dry period was 1990-1992.⁵

Metropolitan's analyses are illustrated in Table 2-4, Table 2-5, and Table 2-6, which correspond to Metropolitan's 2015 UWMP's Tables 2-6, 2-4 and 2-5, respectively. These tables show that the region can provide reliable water supplies not only under normal conditions but also under both the single driest year and the multiple dry-year hydrologies for the 20-year time horizon.

⁵ This analysis is based on Metropolitan's 2015 UWMP (June 2016).

#10.**Table 2-4: Metropolitan Average Year Projected Supply Capability and Demands for 2020 to 2040**

(Metropolitan, June 2016)

**Average Year
Supply Capability¹ and Projected Demands
Average of 1922-2012 Hydrologies
(Acre-feet per year)**

Forecast Year	2020	2025	2030	2035	2040
Current Programs					
In-Region Supplies and Programs	693,000	774,000	852,000	956,000	992,000
California Aqueduct ²	1,555,000	1,576,000	1,606,000	1,632,000	1,632,000
Colorado River Aqueduct					
Total Supply Available ³	1,468,000	1,488,000	1,484,000	1,471,000	1,460,000
Aqueduct Capacity Limit ⁴	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Colorado River Aqueduct Capacity	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Capability of Current Programs	3,448,000	3,550,000	3,658,000	3,788,000	3,824,000
Demands					
Total Demands on Metropolitan	1,586,000	1,636,000	1,677,000	1,726,000	1,765,000
IID-SDCWA Transfers and Canal Linings	274,000	282,000	282,000	282,000	282,000
Total Metropolitan Deliveries⁵	1,860,000	1,918,000	1,959,000	2,008,000	2,047,000
Surplus	1,588,000	1,632,000	1,699,000	1,780,000	1,777,000
Programs Under Development					
In-Region Supplies and Programs	43,000	80,000	118,000	160,000	200,000
California Aqueduct	20,000	20,000	268,000	268,000	268,000
Colorado River Aqueduct					
Total Supply Available ³	5,000	25,000	25,000	25,000	25,000
Aqueduct Capacity Limit ⁴	0	0	0	0	0
Colorado River Aqueduct Capacity	0	0	0	0	0
Capability of Proposed Programs	63,000	100,000	386,000	428,000	468,000
Potential Surplus	1,651,000	1,732,000	2,085,000	2,208,000	2,245,000

¹Represents Supply Capability for resource programs under listed year type.

² California Aqueduct includes Central Valley transfers and storage program supplies conveyed by the aqueduct.

³ Colorado River Aqueduct includes programs, IID-SDCWA transfer and exchange and canal linings conveyed by the aqueduct.

⁴ Maximum CRA deliveries limited to 1.20 MAF including IID-SDCWA transfer and exchange and canal linings.

⁵ Total demands are adjusted to include IID-SDCWA transfer and exchange and canal linings. These supplies are calculated as local supply, but need to be shown for the purposes of CRA capacity limit calculations without double counting.

Table 2-5: Metropolitan Single Dry Year Projected Supply Capability and Demands for 2020 to 2040

(Metropolitan, June 2016)

**Single Dry-Year
Supply Capability¹ and Projected Demands
Repeat of 1977 Hydrology**
(Acre-feet per year)

Forecast Year	2020	2025	2030	2035	2040
Current Programs					
In-Region Supplies and Programs	693,000	774,000	852,000	956,000	992,000
California Aqueduct ²	691,000	712,000	723,000	749,000	749,000
Colorado River Aqueduct					
Total Supply Available ³	1,451,000	1,457,000	1,456,000	1,455,000	1,454,000
Aqueduct Capacity Limit ⁴	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Colorado River Aqueduct Capacity	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Capability of Current Programs	2,584,000	2,686,000	2,775,000	2,905,000	2,941,000
Demands					
Total Demands on Metropolitan	1,731,000	1,784,000	1,826,000	1,878,000	1,919,000
IID-SDCWA Transfers and Canal Linings	274,000	282,000	282,000	282,000	282,000
Total Metropolitan Deliveries⁵	2,005,000	2,066,000	2,108,000	2,160,000	2,201,000
Surplus	579,000	620,000	667,000	745,000	740,000
Programs Under Development					
In-Region Supplies and Programs	43,000	80,000	118,000	160,000	200,000
California Aqueduct	20,000	20,000	198,000	198,000	198,000
Colorado River Aqueduct					
Total Supply Available ³	155,000	125,000	75,000	25,000	25,000
Aqueduct Capacity Limit ⁴	0	0	0	0	0
Colorado River Aqueduct Capacity	0	0	0	0	0
Capability of Proposed Programs	63,000	100,000	316,000	358,000	398,000
Potential Surplus	642,000	720,000	983,000	1,103,000	1,138,000

¹ Represents Supply Capability for resource programs under listed year type.

² California Aqueduct includes Central Valley transfers and storage program supplies conveyed by the aqueduct.

³ Colorado River Aqueduct includes programs, IID-SDCWA transfer and exchange and canal linings conveyed by the aqueduct.

⁴ Maximum CRA deliveries limited to 1.20 MAF including IID-SDCWA transfer and exchange and canal linings.

⁵ Total demands are adjusted to include IID-SDCWA transfer and exchange and canal linings. These supplies are calculated as local supply, but need to be shown for the purposes of CRA capacity limit calculations without double counting.

Table 2-6: Metropolitan Multiple Dry Year Projected Supply Capability and Demands for 2020 to 2040

(Metropolitan, June 2016)

**Multiple Dry-Year
Supply Capability¹ and Projected Demands
Repeat of 1990-1992 Hydrology**
(Acre-feet per year)

Forecast Year	2020	2025	2030	2035	2040
Current Programs					
In-Region Supplies and Programs	239,000	272,000	303,000	346,000	364,000
California Aqueduct ²	664,000	682,000	687,000	696,000	696,000
Colorado River Aqueduct					
Total Supply Available ³	1,403,000	1,691,000	1,690,000	1,689,000	1,605,000
Aqueduct Capacity Limit ⁴	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Colorado River Aqueduct Capability	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Capability of Current Programs	2,103,000	2,154,000	2,190,000	2,242,000	2,260,000
Demands					
Total Demands on Metropolitan	1,727,000	1,836,000	1,889,000	1,934,000	1,976,000
IID-SDCWA Transfers and Canal Linings	274,000	282,000	282,000	282,000	282,000
Total Metropolitan Deliveries⁵	2,001,000	2,118,000	2,171,000	2,216,000	2,258,000
Surplus	102,000	36,000	19,000	26,000	2,000
Programs Under Development					
In-Region Supplies and Programs	36,000	73,000	110,000	151,000	192,000
California Aqueduct	7,000	7,000	94,000	94,000	94,000
Colorado River Aqueduct					
Total Supply Available ³	80,000	75,000	50,000	25,000	25,000
Aqueduct Capacity Limit ⁴	0	0	0	0	0
Colorado River Aqueduct Capability	0	0	0	0	0
Capability of Proposed Programs	43,000	80,000	204,000	245,000	286,000
Potential Surplus	145,000	116,000	223,000	271,000	288,000

¹ Represents Supply Capability for resource programs under listed year type.

² California Aqueduct includes Central Valley transfers and storage program supplies conveyed by the aqueduct.

³ Colorado River Aqueduct includes programs, IID-SDCWA transfer and exchange and canal linings conveyed by the aqueduct.

⁴ Maximum CRA deliveries limited to 1.20 MAF including IID-SDCWA transfer and exchange and canal linings.

⁵ Total demands are adjusted to include IID-SDCWA transfer and exchange and canal linings. These supplies are calculated as local supply, but need to be shown for the purposes of CRA capacity limit calculations without double counting.

2.2.2 Recycled Water

MNWD's demands for recycled water continue to increase as new services are connected to the recycled water system. MNWD has identified recycled water as its most cost-effective water supply source. Recycled water represents 18% of MNWD's supply. With the planned expansion of MNWD's recycled water distribution system, recycled water will increase to about 22% of the supply by 2040.

MNWD's recycled water system currently provides irrigation supply to 2,670 meters. MNWD also has 1,290 dedicated potable irrigation meters that present an opportunity for conversion to recycled water supply.

MNWD developed a Recycled Water Master Plan to evaluate existing recycled water demands and provide a projection of ultimate recycled water demands, identify potential non-irrigation customers, assess seasonal and operational storage needs, and evaluate opportunities for MNWD to exchange recycled water supply and production with neighboring agencies. The Recycled Water Master Plan was completed in June 2017.

2.2.3 Baker Water Treatment Plant

The Baker WTP is a new 28.1 MGD plant constructed in 2017 at the existing IRWD Baker Filtration Plant site in the City of Lake Forest. The Baker WTP treats raw imported water from Metropolitan and Irvine Lake. Given that the Baker WTP primarily relies on imported raw water from Metropolitan, it does not create a day-to-day new supply but provides increased water supply reliability to southern Orange County by providing locally treated water to customers of IRWD, ETWD, MNWD, SMWD and Trabuco Canyon Water District (TCWD). It minimizes water supply impacts in the event of emergency conditions or scheduled maintenance on the Metropolitan delivery system such as the Diemer Filtration Plant, Lower Feeder Pipeline or AMP. Additionally, the potential exists for the project participants to receive and treat new supply sources to Irvine Lake, when available. Irvine Lake is supplied by untreated water from Metropolitan and local surface runoff. MNWD has a capacity right of approximately 8.4 MGD (9,400 AFY) from the Baker WTP.

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3 Water Demands

This section provides an overview of MNWD’s current and projected population and climate conditions which are the main drivers affecting existing and projected water demands. This section also presents the water demand projected for the Project.

3.1 MNWD Service Area

MNWD provides water to a population of approximately 170,000 customers throughout its service area. The MNWD service area is almost entirely developed encompassing most or parts of six cities in southern Orange County: Aliso Viejo, Dana Point, Laguna Hills, Laguna Niguel, Mission Viejo, and San Juan Capistrano.

The MNWD service area varies in elevation between 26 feet above sea level at its lowest point to 934 feet at its highest. Interstate 5 bisects MNWD’s service area from north to south, with the higher elevations located on the west side. MNWD is bordered by ETWD to the north, Laguna Beach County Water to the west, SCWD to the south and west, San Juan Capistrano to the south and east, and SMWD to the east.

3.1.1 Population

MNWD’s current population is estimated at 171,182. The 2018 service area population estimate was calculated by increasing the 2015 MNWD population of 170,326 (from CDR) by 0.29% per year (the 2018-2019 average population increase for Orange County per CDR). MNWD’s service area is largely built-out, and minimal changes in land use are anticipated over the next 20 years.

The 2018 to 2040 projections shown in Table 3-1 are based on the 2010 census. It is expected that the growth within MNWD service area will slow to less than one percent growth every five years through 2040.

Table 3-1: Current and Projected Service Area Population

	2018	2020	2025	2030	2035	2040
Population*	171,812	172,876	174,115	175,512	176,539	177,572

* Center for Demographic Research (CDR) at California State University, Fullerton (2012 & 2019). 2018 population is current and the remaining years are projected.

3.1.2 Climate Conditions

The MNWD service area encompasses portions of south Orange County located in an area known as the South Coast Air Basin (SCAB). The SCAB climate is characterized by a “Mediterranean” climate: a semi-arid environment with mild winters, warm summers and moderate rainfall. Table 3-2 shows recent (2007-2015) climate data for the MNWD service area. The service area’s average temperature ranges from 54.2 °F in December to 74.5 °F in August, with an annual average of 63.0 °F. The average annual rainfall is 8.41 inches and the average evapotranspiration (ET₀) is 51.79 inches, which is over six times the annual average rainfall. This translates to a high demand for landscape irrigation for homes, commercial properties, parks, and golf courses. Moreover, a region with low rainfall like Southern California is also more prone to drought conditions.

Table 3-2: Average Climate Conditions (2007-2015)*

Month	Standard Monthly Average ETo (inches)	Annual Rainfall (inches)	Monthly Average Temperature (°F)
January	2.60	0.91	56.7
February	2.62	1.53	55.1
March	4.06	0.69	58.0
April	4.94	0.46	60.1
May	5.57	0.33	63.1
June	5.86	0.01	66.3
July	6.29	0.08	70.1
August	6.35	0.00	74.5
September	4.99	0.36	70.7
October	3.83	0.63	66.2
November	2.71	0.91	60.4
December	1.98	2.48	54.2
Annual	51.79	8.41	63.0

* CIMIS Station #75

3.2 Existing Water Demands

MNWD maintains approximately 54,777 customer connections to its potable water distribution system. All connections in the service area are metered. Approximately 52% of dedicated irrigation meters are served with recycled water. The largest irrigation sites were first targeted for recycled water conversion due to the economy of scale in meeting larger water consumers' demands.

Table 3-3 summarizes MNWD's existing water demand for FY2017-18.

Table 3-3: Current Water Demand (FY 2017-18)

Water Demand Type	Fiscal Year 2017-18 Demand (AFY)
Potable Water	25,656
Recycled Water	6,992
Total	32,648

3.3 Projected Water Demands

MNWD's most recently adopted 2015 UWMP did not include projected demands associated with the Project, though, a similar development project (i.e. Agora Arts District Downtown project) had been accounted for at this project location. The Project will result in a net increase of approximately 8 AFY of potable water demand as detailed below.

3.3.1 Projected Water Demands from Town Center Project

The Town Center Project proposes new residential units and the redevelopment of the old Orange County Courthouse site by the end of 2023 and is accompanied by a net increase in water demand for MNWD's residential, commercial, and recycled water landscape irrigation customer sectors.

The project will add 275 multi-family residential (MFR) apartments. These residential units will generate approximately 49,500 gallons per day (gpd) or 55 AFY of potable (indoor) water demands (Table 3-4). Commercial potable (indoor) water demand from the Town Center Project is estimated to generate approximately 81,564 gpd or 91 AFY (Table 3-5). The Town Center Project will have 194,644 sq. ft. (4.47 acres) of landscape areas that will be irrigated with 10,705 gpd (12 AFY) of recycled water (Table 3-6). The Town Center Project will also have outdoor fountains and pools that will use 246 gpd (0.3 AFY) of potable water (Table 3-7).

Table 3-4: Town Center Project's Residential Water Demands Projection

Use Category	Dwelling Units (DU)	Water Demand Factor (gpd/DU)	Potable Water Demand (gpd)	Potable Water Demand (AFY)
MFR Apartment	275	180	49,500	55
Total Residential	275	180	49,500	55

Table 3-5: Town Center Project's Commercial Water Demands Projection

Use Category	Water Demand Factor (gpd/ksf)	Estimated Footprint (sq. ft.)	Potable Water Demand (gpd)	Potable Water Demand (AFY)
Commercial/Retail	90	78,800	7,092	8
Library	65	10,100	657	1
Office	65	50,400	3,276	4
Restaurant	1,050	67,180	70,539	79
Total Commercial	395*	206,500	81,564	91

* Average Water Demand Factor = (Total Future Potable Water Demand) / (Total Future Footprint) = (81,564 gpd) / (206.5 ksf)

Table 3-6: Town Center Project's Recycled Water Demands Projection

Use Category	Water Use Factor (gpd/ksf)	Estimated Footprint (sq. ft.)	Recycled Water Demand (gpd)	Recycled Water Demand (AFY)
Landscape	55	194,644	10,705	12
Total Recycled	55	194,644	10,705	12

Table 3-7: Town Center Project's Outdoor Potable Water Demands Projection

Use Category	Water Use Factor (gpd/ksf)	Estimated Footprint (sq. ft.)	Potable Water Demand (gpd)	Potable Water Demand (AFY)
Outdoor Water Feature	55	4,469	246	0.3
Total Outdoor (potable)	55	4,469	246	0.3

3.3.2 Projected Water Demands including Town Center Project

Table 3-8 presents the 20-year projected water demand for MNWD (from the 2015 UWMP) with demands from the Town Center Project.

Table 3-8: Projected Water Demands with Town Center Project Demand

Water Demand Type	Fiscal Year Ending Demand (AFY)					
	2018*	2020	2025	2030	2035	2040
Potable Water	25,656	28,223	28,064	27,637	27,634	27,690
Recycled Water	6,992	7,692	7,656	7,539	7,539	7,554
Total	32,648	35,915	35,719	35,176	35,172	35,243

* Actual demand for FY 2017-2018

4 Supply and Demand Comparison

This section compares water supply and demand projections to determine whether the total projected supplies available to MNWD will be sufficient to meet the projected demands associated with the proposed Project in addition to MNWD's other existing and planned future uses. Metropolitan's 2015 UWMP affirms that the agency can meet 100% of the supply needs of its member agencies through 2040; as a result, MWDOC concludes in its 2015 UWMP that it will be able to meet 100% of the supply needs of its retail agencies during normal, single-dry, and multiple-dry year conditions over the same period. The assessment is done for the years 2020 to 2040 in five-year increments. The supply-demand analyses include the assessment of average-year, single dry-year, and multiple dry-year hydrologic scenarios.

4.1 Average Year

The average year represents average hydrologic conditions. The total demand presented in Table 4-1 represents the sum of MNWD's existing demand projections and the demand projections for the Project (which imposes a 8 AFY net increase in potable water and 10 AFY net increase in recycled water).

As discussed above, MNWD has rights to receive imported water from Metropolitan, through MWDOC, via the regional distribution system. All imported water supplies identified in this section are available to MNWD from existing water transmission facilities. Table 4-1 shows supply and demand projections under normal year conditions. Additional water supplies are projected to be available from Metropolitan, but are not included here since Metropolitan's projected availability of imported supplies meet or exceed total projected demands for Metropolitan's supplies.

Table 4-1: Projected Average Year Supply and Demand, Including Town Center Demands

	Fiscal Year Ending (AFY)					
	2018*	2020	2025	2030	2035	2040
Total Demand	32,648	35,915	35,719	35,176	35,172	35,243
Potable Water	25,656	28,223	28,064	27,637	27,634	27,690
Recycled Water	6,992	7,692	7,656	7,539	7,539	7,554
Total Supply	42,867	40,929	44,178	44,938	45,391	45,391
Potable Water	35,089	32,818	34,168	34,940	35,405	35,405
Recycled Water	7,778	8,111	10,010	9,998	9,986	9,986

* Actual demand/supply for FY2017-18

4.2 Single Dry Year

The impacts of single dry-year conditions on water demands in this WSA were determined by the same methodology provided by MWDOC, and as employed by MNWD in its 2015 UWMP. The single dry-year condition increases the demand from the average condition. The methodology focuses on per-capita usage because it removes the influence of growth from the analysis. To determine the "bump factor," MNWD's per-capita usage from FY 2005-2006 thru FY 2014-2015 were used. The single dry bump factor was derived using the highest per-capita usage in the analysis period, divided by average per-capita usage for that period. MNWD's single dry bump factor is 9 percent using FY 2013-14 as the single dry-year.

Table 4-2 provides supply and demand projections for a single dry water year. As indicated above, additional supplies would be available from Metropolitan, but are not included here because Metropolitan's total projected availability of imported supplies during single dry-year periods meet or exceed total projected demands for those supplies as illustrated in Metropolitan's 2015 UWMP.

Table 4-2: Projected Single Dry-Year Supply and Demand

	Fiscal Year Ending (AFY)					
	2018*	2020	2025	2030	2035	2040
Total Demand	32,648	39,147	38,934	38,342	38,337	38,415
Potable Water	25,656	31,445	31,278	30,803	30,798	30,861
Recycled Water	6,992	7,692	7,656	7,539	7,539	7,554
Total Supply	42,867	40,929	44,178	44,938	45,391	45,391
Potable Water	35,089	32,818	34,168	34,940	35,405	35,405
Recycled Water	7,778	8,111	10,010	9,998	9,986	9,986

* Actual demand/supply for FY2017-18

4.3 Multiple Dry Years

The impacts of multiple dry-year conditions on water demands in this WSA were determined by the same methodology provided by MWDOC, and as employed by MNWD in its 2015 UWMP. The multiple dry-year condition increases the demand from the average condition and maintains this elevated demand for three years in a row. It was determined that MNWD's multiple year bump factor was 9 percent. MWDOC determined in its 2015 UWMP projections (based on Metropolitan's 2015 UWMP) that it will be capable of providing its customers all their demands for the multiple dry-year condition from 2015 through 2040. Table 4-3 shows supply and demand projections under multiple dry-year conditions.

Table 4-3: Projected Multiple Dry-Years Supply and Demand

		Fiscal Year Ending (AFY)					
		2018*	2020	2025	2030	2035	2040
First Year	Total Demand	32,648	39,147	38,934	38,342	38,337	38,415
	Potable Water	25,656	31,445	31,278	30,803	30,798	30,861
	Recycled Water	6,992	7,692	7,656	7,539	7,539	7,554
	Total Supply	42,867	40,929	44,178	44,938	45,391	45,391
Second Year	Total Demand	32,648	39,147	38,934	38,342	38,337	38,415
	Potable Water	25,656	31,445	31,278	30,803	30,798	30,861
	Recycled Water	6,992	7,692	7,656	7,539	7,539	7,554
	Total Supply	42,867	40,929	44,178	44,938	45,391	45,391
Third Year	Total Demand	32,648	39,147	38,934	38,342	38,337	38,415
	Potable Water	25,656	31,445	31,278	30,803	30,798	30,861
	Recycled Water	6,992	7,692	7,656	7,539	7,539	7,554
	Total Supply	42,867	40,929	44,178	44,938	45,391	45,391

* Actual demand/supply for FY2017-18

4.4 Conclusions

In accordance with the foregoing information and analyses, and the standards set forth by Water Code section 10910, et seq., this WSA concludes that the total projected water supplies available to MNWD during normal, single-dry, and multiple-dry water years over the next 20-year period will be sufficient to meet the projected water demands associated with the proposed Project, in addition to MNWD's existing and planned future uses, including agricultural and manufacturing uses.

Nothing in this WSA is intended to create a right or entitlement to water service or any specific level of water service, nor does this WSA impose, expand, or limit any duty concerning the obligation of MNWD to provide service to its existing customers or to any future potential customers. (Water Code § 10914.) Nor does anything in this WSA prevent or otherwise interfere with MNWD's discretionary authority to declare a water shortage emergency in accordance with Water Code section 350, et seq., and/or to take any and all related or other actions authorized by law.

5 References

Center for Demographic Research (CDR) at California State University, Fullerton. 2012.

Center for Demographic Research (CDR) at California State University, Fullerton. 2019.

California Irrigation Management Information System (CIMIS) Station #75 Irvine, California
<<http://www.cimis.water.ca.gov/>>

Malcolm Pirnie/ARCADIS. *Moulton Niguel Water District: 2010 Urban Water Management Plan*. June 2011.

Malcolm Pirnie/ARCADIS. *Municipal Water District of Orange County: 2010 Regional Urban Water Management Plan*. June 2011.

ARCADIS. *Agora Arts District Downtown Water Supply Assessment*. April 2016.

ARCADIS. *Municipal Water District of Orange County: 2015 Urban Water Management Plan*. May 2016.

Metropolitan Water District of Southern California. *2015 Integrated Water Resources Plan*. January 2016.

Metropolitan Water District of Southern California. *2015 Urban Water Management Plan*. June 2016.

Moulton Niguel Water District. *Draft 2015 Urban Water Management Plan*. March 2016.

Moulton Niguel Water District. *2015 Urban Water Management Plan*. June 2016.

Moulton Niguel Water District. *Request for Proposals: Water Supply Analysis- City of Laguna Niguel Agora Concept Project*. January 2016.

Municipal Water District of Orange County. *2015 Urban Water Management Plan*. May 2016

PSOMAS. *Feasibility of Alternative Seawater Intakes for the Huntington Beach Seawater Desalination Project*. May 2007.

U.S. Bureau of Reclamation, California Department of Water Resources, U.S. Fish and Wildlife Service, National Marine Fisheries Service, California Department of Fish and Wildlife, State Water Resources Control Board. *Central Valley Project and State Water Project: Drought Operations Plan and Operational Forecast*. April 8, 2014

Western Regional Climate Center (WRCC) Santa Ana Fire Station, California (047888) <<http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7888>>

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STAFF REPORT

TO: Board of Directors **MEETING DATE:** December 18, 2019

FROM: Drew Atwater, Director of Finance & Water Resources
Johnathan Cruz, Financial Planning Manager

SUBJECT: SB 998 Implementation

SUMMARY:

Issue: The District is required to comply with regulations governing the discontinuation of residential water service by February 1, 2020 as stipulated by SB 998 (Dodd).

Recommendation: It is recommended that the Board of Directors approve the resolution entitled, "Amending Rules and Regulations for Water Service to Revise Provisions Regarding Service Charges and Deposits and to Adopt a Policy on Discontinuation of Residential Water Service."

Fiscal Impact: Sufficient funds are available in the approved General Fund Budget for FY 2019-20.

Reviewed by Committee: Provided as an informational item at the Board of Directors meeting on November 19, 2019.

Reviewed by Legal: Yes

BACKGROUND:

On September 28, 2018, Gov. Brown signed SB 998, the Water Shutoff Protection Act (the "Act" or "SB 998"). The purpose of the Act is to provide additional procedural protections to residential water customers before the discontinuation of water service. The Act is codified at Health & Safety Code § 116900, et seq. and expands on existing procedural safeguards contained in the Public Utilities Code and Government Code relating to utility service disconnections.

The Act specifically requires that the District adopt a written policy on discontinuation of residential water service for nonpayment and make it available on the District's system's website. The policy must be available in English, Spanish, Chinese, Tagalog, Vietnamese, Korean, and any other language spoken by ten percent or

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more people within the system's service area and must include information related to alternative payment plans, bill contest or appeal procedures, and a telephone number to contact District staff to discuss options for averting discontinuation of residential service for nonpayment.

The Act also establishes new or expanded procedural requirements that must be met before discontinuing water service to residential customers for nonpayment, including: sixty-day payment delinquency, notice of discontinuation provided at least seven business days prior to shut-off, good-faith effort criteria, landlord-tenant situations, bill appeal process protections, and exemptions for certain medical and financial circumstances.

The Act requires that the District annually report to the State Water Resource Control Board the number of times it has discontinued service due to inability to pay. The Act also requires posting of this information on the District's website. The District is required to comply with the Act's requirements by February 1, 2020. Penalties up to \$1,000 may be assessed for each day of non-compliance.

DISCUSSION:

On November 19, 2019, staff presented an overview of the changes to the District's current process for discontinuing water service to residential customers for nonpayment. As noted during the November presentation, many of the District's current customer billing practices are consistent with the requirements of SB 998; however, the Act requires that these practices be formally incorporated into the District's Board adopted policies. For example, current Customer Accounts staff reach out on multiple occasions to past due account holders to establish payment plans to help these customers avoid service disconnections. Proposed revisions and additions to the District's Rules and Regulations (attached) codify this practice as well as provide the specific terms and payment arrangements available to help customers avoid disconnection.

As was the case with providing payment arrangements, the District's current billing and payments schedules are such that it would be incredibly unlikely that a customer would be subject to discontinuation of water service for nonpayment without also being in a past due status for a period of 60 days or more, consistent with the requirements of SB 998. However, the Act mandates several conditions under which water service may never be disconnected as well as additional noticing requirements that must be met prior to discontinuation of service regardless of how long the account has had an outstanding balance. District staff has worked closely with legal counsel to draft the proposed revisions to the District's Rules and Regulations so that they are as easy for customers to navigate as possible while still meeting the requirements and specific scenarios stipulated by SB 998.

The District's Board has always placed a high priority on providing exemplary service to customers, and District staff have integrated that into every aspect of our operations. Because of our focus on keeping customer bills low and commitment to working with our customers to help meet their needs, the District enjoys some of the lowest past due bill rates in the industry and relatively few service disconnections for

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nonpayment. For context, of the 658,525 bills generated in the last twelve months only 13,302 late fees were assessed (little more than two percent of bills) and only 1,348 ended in disconnection for nonpayment (only 0.2 percent of bills).

Despite our customers' low past due rates, implementing the noticing and tracking components of SB 998 represent a significant increase in the staffing resources required to complete regular customer billing processes. One requirement of the Act is that the District physically post written notice of disconnection for nonpayment and a copy of the District's policies related to payment arrangements (translated in six languages) at the service address prior to disconnection.

It is also important to note that the impacts of SB 998 implementation extend beyond the Customer Accounts, Customer Service Field, and IT departments. The Act also requires that the District's approved policies include procedures for customers to dispute the amount of a bill. In the event that District staff reject the dispute, the customer then has the right to appeal the decision with the District Board of Directors at the next noticed board meeting.

It is recommended that the Board of Directors approve the resolution entitled, "Amending Rules and Regulations for Water Service to Revise Provisions Regarding Service Charges and Deposits and to Adopt a Policy on Discontinuation of Residential Water Service" with the attached revisions to the District's Rules and Regulations.

Attachments:

1. Resolution entitled, "Amending Rules and Regulations for Water Service to Revise Provisions Regarding Service Charges and Deposits and to Adopt a Policy on Discontinuation of Residential Water Service."
2. Rules and Regulations, Article IV, Section 11
3. Rules and Regulations, Exhibit H, Policy on Discontinuation of Residential Water Service

RESOLUTION NO. 19-__

**RESOLUTION OF THE BOARD OF DIRECTORS OF
MOULTON NIGUEL WATER DISTRICT
AMENDING RULES AND REGULATIONS FOR WATER SERVICE TO REVISE
PROVISIONS REGARDING SERVICE CHARGES AND DEPOSITS AND TO ADOPT
A POLICY ON DISCONTINUATION OF RESIDENTIAL WATER SERVICE**

WHEREAS, the Board of Directors of Moulton Niguel Water District (“District”) previously adopted Article IV of its Rules and Regulations, which sets forth the terms and conditions for water and sewer service; and

WHEREAS, in 2018, the California Legislature adopted Senate Bill 998 (“SB 998”) which adopted new and expanded protections regarding discontinuation of water service for nonpayment and related matters; and

WHEREAS, as part of SB 998, California Health and Safety Code Section 116906 requires each urban and community water system, including the District, to have a written policy on discontinuation of residential service for nonpayment, and such written policy must address specified subjects required by law; and

WHEREAS, the Board desires to amend Article IV of the Rules and Regulations to ensure consistency with the requirements of SB 998 and related laws.

NOW, THEREFORE the Board of Directors of the Moulton Niguel Water District does hereby **RESOLVE, DETERMINE** and **ORDER** as follows:

SECTION 1. Article IV, Section 11 of the District’s Rules and Regulations is hereby revised to read as shown in Attachment A to this Resolution.

SECTION 2. The Board hereby adopts Attachment B to this Resolution, Policy on Discontinuation of Residential Water Service, as Exhibit “H” to the District’s Rules and Regulations.

SECTION 3. This Resolution shall become effective February 1, 2020.

SECTION 4. If any section, subsection, clause or phrase in this Resolution (including its attachments) is for any reason held invalid, the validity of the remainder of this Resolution shall not be affected thereby. The Board hereby declares that it would have passed this Resolution and each section, subsection, sentence, clause, or phrase thereof, irrespective of the fact that one or more sections, subsections, sentences, clauses or phrases or the application thereof be held invalid.

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SECTION 5. The Recitals set forth above are incorporated herein and made an operative part of this Resolution.

APPROVED, SIGNED and **ADOPTED** this 18th day of December 2019.

MOULTON NIGUEL WATER DISTRICT

President/Vice President
MOULTON NIGUEL WATER DISTRICT
and of the Board of Directors thereof

Secretary/Assistant Secretary
MOULTON NIGUEL WATER DISTRICT
and of the Board of Directors thereof

SECTION 11. - SERVICE CHARGES

A. Establishment of Rates

Rates to be charged and collected and terms, provisions, and conditions to be effective respecting such rates for water and sewer service supplied by District to customers within District shall be as fixed and established by the Board from time to time and published in a separate supplement hereto, which charges shall have no effect on any existing or subsequent reimbursement agreements. This provision is in addition to and not by way of derogation of any other remedies or procedures available to District pursuant to any law or regulation or by any of the provisions of these Rules and Regulations.

B. Change of Service Charge

The Board reserves the right to change the schedule of water and sewer service charges and other charges at any time, or from time to time.

C. Service Charge Billing

Water and sewer service charges will be rendered as part of the District Water Service Bill at intervals of one month or multiples thereof.

D. Metering

For purposes of computing charges, each meter upon the customer's premises will be considered separately, and readings of two or more meters will not be combined as equivalent to measurement through one meter.

E. Time and Manner of Payment of Bills

1. All bills and charges for water and sewer service hereunder shall be due and payable upon presentation and shall become delinquent if not paid by the date stated on the bill. Such bills and charges shall be deemed to have been presented upon having been deposited in the United States mail, postage paid, addressed to the applicant, owner, or customer reflected in the records of District. Additionally, the next month's bill will reflect current charges as well as any past due charges.
2. For residential customers, if a bill is delinquent for at least sixty (60) days, the District may discontinue water service to the service address after providing

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required notices. Water shall not again be supplied until all past due amounts are paid including applicable interest or penalties, any reconnection fees, and a security deposit, if required by the District. Payment shall be made in person, by mail, by phone, or electronically. Additional terms and conditions regarding discontinuation of residential water service are provided in Exhibit "H" to these Rules and Regulations.

3. For all non-residential customers, if payment is not made within thirty (30) days after presentation, the water service may be discontinued without further notice and water shall not again be supplied until all delinquent bills, plus a reconnect fee to be determined by the District, have been paid to cover turn-on and turn-off costs. Payment shall be made in person, by mail, or by credit card.
4. Discontinuance of service by reason of a delinquent bill shall not automatically result in a revocation of permit. However, such delinquency may be considered as sufficient reason for revocation of permit in accordance with the provision of Section 5 of these Rules and Regulations.
5. Should a check for service be returned from the bank for any reason, the customer of record will be notified and a fee, determined by the District, will be charged against the account(s) to which the check has been credited.
6. Customers with two returned checks within a twelve-month period, will be notified that future charges will not be allowed to be paid by check. Payments by cash, money order or credit card will be required. This cash-only basis will be enforced until the customer establishes a twelve-month period of on-time payments.
7. Customers that present an invalid check to avoid disconnection (after a tag or seal), will be subject to immediate disconnection of service as a violation of these Rules and Regulations.
8. A charge in an amount to be determined by the District shall be imposed for any damage to facilities (i.e., equipment, lock, ears to the meter, etc.).

EXHIBIT "H" TO THE RULES AND REGULATIONS OF THE MOULTON NIGUEL WATER DISTRICT

POLICY ON DISCONTINUATION OF RESIDENTIAL WATER SERVICE

1. **Application of Policy.** This Policy on Discontinuation of Residential Water Service (this "Policy") applies to all District accounts for residential water service, but does not apply to any accounts for non-residential service. To the extent this Policy conflicts with any provisions of the Rules and Regulations, or any other rules, regulations, or policies of the District, this Policy will control.

2. **Contact Information.** For questions or assistance regarding your water bill, the District's Customer Service staff can be reached at (949) 831-2500. Customers may also visit the District's Customer Service desk in person Monday through Friday, from 8 a.m. to 5 p.m., except on District holidays.

3. **Billing Procedures.** Water service charges will be rendered as part of the District's Water Service Bill at intervals of one month or multiples thereof. All bills for water service are due and payable on the date stated on the bill. Any bills not paid within such period are considered delinquent.

4. **Discontinuation of Water Service for Nonpayment.** If a bill is delinquent for at least sixty (60) days, the District may discontinue water service to the service address.

4.1 Written Notice to Customer. The District will provide a mailed notice to the customer of record at least fifteen (15) days before discontinuation of water service. The notice will contain:

- (a) the name and address of the customer;
- (b) the amount of the delinquency;
- (c) the date by which payment or payment arrangements must be made to avoid discontinuation of service;
- (d) a description of the procedure by which the customer may request an alternative payment arrangement, which may include an extension or amortization payment plan;
- (e) the procedure for the customer to obtain information on financial assistance, if applicable; and
- (f) the telephone number where the customer may request a payment arrangement or receive additional information from the District.

4.2 Written Notice to Occupants or Tenants. If the District furnishes water through a master meter, furnishes individually metered service to a single-family dwelling, multi-unit residential structure, mobile home park, or farm labor camp, or if the customer of record's mailing address is not the same as the service address, the District will also send a notice to the occupants living at the service address at least ten (10) days before discontinuation of water service. The notice will be addressed to "Occupant," will contain the information required in Section 4.1 above, and will also inform the residential occupants that

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they have the right to become customers of the District without being required to pay the amount due on the delinquent account. Terms and conditions for occupants to become customers of the District are provided in Section 8 below.

4.3 Telephone or In-Person Contact; Posted Notice. The District will also make a reasonable, good faith effort to contact the customer of record or an adult person living at the service address in person or by telephone at least seven (7) days before discontinuation of service. The District will offer to provide in writing a copy of this Policy and to discuss options to avert discontinuation of water service for nonpayment, including the possibility of an extension or ~~amortization~~ enrollment in a payment plan.

If the District is unable to make personal contact with the customer or an adult person living at the service address in person or by telephone, the District will make a good faith effort to leave a notice of imminent discontinuation of residential service and a copy of this Policy in a conspicuous place at the service address. The notice and copy of this Policy will be left at the residence at least forty-eight (48) hours before discontinuation of service. The notice will include:

- (a) the name and address of the customer;
- (b) the amount of the delinquency;
- (c) the date by which payment or payment arrangements must be made to avoid discontinuation of service;
- (d) the procedure for the customer to obtain information on financial assistance, if applicable; and
- (e) the telephone number where the customer may request a payment arrangement or receive additional information from the District.

4.4 Circumstances Under Which Service Will Not Be Discontinued. The District will not discontinue residential water service for nonpayment under the following circumstances:

- (a) During an investigation by the District of a customer dispute or complaint under Section 5.1 below;
- (b) During the pendency of an appeal to the District's Board of Directors under Section 5.3 below; or
- (c) During the period of time in which a customer's payment is subject to a District-approved extension or ~~amortization~~ payment plan under Section 6 below, and the customer remains in compliance with the approved payment arrangement.

4.5 Special Medical and Financial Circumstances Under Which Services Will Not Be Discontinued.

- (a) The District will not discontinue water service if all of the following conditions are met:
 - (i) The customer, or a tenant of the customer, submits to the District the certification of a licensed primary care provider that discontinuation of water service will be life threatening to, or pose a serious threat to the health and safety of, a resident of the premises where residential service is provided;
 - (ii) The customer demonstrates that he or she is financially unable to pay for residential service within the District's normal billing cycle. The customer is deemed financially unable to pay during the normal billing cycle if: (a) any member of the customer's household is a current recipient of CalWORKs, CalFresh, general assistance, Medi-Cal, Supplemental Security Income/State Supplementary Payment Program, or California Special Supplemental Nutrition Program for Women, Infants, and Children, or (b) the customer declares under penalty of perjury that the household's annual income is less than 200 percent of the federal poverty level; and
 - (iii) The customer is willing to enter into an alternative payment arrangement, including an extension or ~~amortization-payment plan~~ with respect to the delinquent charges.
- (b) For any customers who meet all of the above conditions, the District will offer the customer one of the following options, to be selected by the District in its discretion: (1) an extension of the payment period; or (2) ~~amortization of enrollment in a payment plan to pay off~~ the unpaid balance. The District's General Manager will select the most appropriate payment arrangement, taking into consideration the information and documentation provided by the customer, as well as the District's payment needs. Any payment arrangement entered into pursuant to this Section will be subject to the terms, conditions, and remedies, in Section 6.
- (c) The customer is responsible for demonstrating that the conditions in subsection (a) have been met. Upon receipt of documentation from the customer, the District will review the documentation within seven (7) days and: (1) notify the customer of the alternative payment arrangement selected by the District and request the customer's signed assent to participate in that alternative arrangement; (2) request additional information from the customer; or (3) notify the customer that he or she does not meet the conditions in subsection (a).
- (d) The District may discontinue water service if a customer who has been granted an alternative payment arrangement under this section fails to do any of the following for sixty (60) days or more: (a) to pay his or her unpaid charges by the extended payment date; (b) to pay any ~~amortized-payment~~ amount due under the ~~amortization-payment plan~~ schedule; or (c) to pay his or her current charges for

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water service. The District will post a final notice of intent to disconnect service in a prominent and conspicuous location at the service address at least five (5) business days before discontinuation of service. The final notice will not entitle the customer to any investigation or review by the District.

4.6 Time of Discontinuation of Service. The District will not discontinue water service due to nonpayment on a Saturday, Sunday, legal holiday, or at any time during which the District's office is not open to the public.

4.7 Restoration of Service. Customers whose water service has been discontinued may contact the District by telephone or in person regarding restoration of service. Restoration will be subject to payment of: (a) any past-due amounts, including applicable interest or penalties or costs; (b) any reconnection fees, ~~subject to the limitations in Section 7.1~~, if applicable; and (c) a security deposit, if required by the District. Alternatively, the customer may enter a six (6) month ~~amortization-payment~~ plan with first payment due at time of restoration. The customer must remain current on all water service charges accruing during any subsequent billing periods, subject to the limitations in Section 6.4.

5. **Procedures to Contest or Appeal a Bill.**

5.1 Time to Initiate Complaint or Request an Investigation. A customer may initiate a complaint or request an investigation regarding the amount of a bill within five (5) days of receiving a disputed bill. For purposes of this Section 5.1 only, a bill will be deemed received by a customer five (5) days after mailing and immediately upon e-mailing.

5.2 Review by District. A timely complaint or request for investigation will be reviewed by a manager of the District, who will provide a written determination to the customer. The review will include consideration of whether the customer may receive an extension or ~~amortization-qualify for enrollment in a~~ payment plan under Section 6.

5.3 Appeal to Board of Directors. Any customer whose timely complaint or request for an investigation pursuant to this Section 5 has resulted in an adverse determination by the District may appeal the determination to the Board of Directors by filing a written notice of appeal with the District Secretary within ten (10) business days of the District's mailing of its determination. Upon receiving the notice of appeal, the District Secretary will set the matter to be heard at an upcoming Board meeting and mail the customer written notice of the time and place of the hearing at least ten (10) days before the meeting. The decision of the Board is final.

6. **Extensions and Other Alternative Payment Arrangements.**

6.1 Time to Request an Extension or Other Alternative Payment Arrangement. If a customer is unable to pay a bill during the normal payment period, the customer may request an extension or other alternative payment arrangement described in this Section 6. If a customer submits his or her request within thirteen (13) days after mailing of a written notice of discontinuation of service by the District, the request will be reviewed by a manager of the District. District decisions regarding extensions and other alternative payment arrangements are final and are not subject to appeal to the District's Board of Directors.

6.2 Extension. If approved by the District, a customer's payment of his or her unpaid balance may be temporarily extended for a period not to exceed three (3) months after the balance was originally due. The District's General Manager will determine, in his or her discretion, how long an extension will be provided to the customer. The customer must pay the full unpaid balance by the date set by the District and must remain current on all water service charges accruing during any subsequent billing periods. The extended payment date will be set forth in writing and provided to the customer.

6.3 AmortizationPayment Plans. If approved by the District, a customer's payment of his or her unpaid balance may be ~~amortized-spread~~ over a period not to exceed six (6) months, as determined by the District's General Manager in his or her discretion. If ~~amortization-a payment plan~~ is approved, the unpaid balance will be divided by the number of months in the ~~amortization-payment plan~~ period, and that amount will be added to the customer's monthly bills for water service until fully paid. During the ~~amortization-payment plan~~ period, the customer must remain current on all water service charges accruing during any subsequent billing periods. The ~~amortization-payment plan~~ schedule and amounts due will be set forth in writing and provided to the customer.

6.4 Failure To Comply. If the original amount due is delinquent by at least sixty (60) days and the customer does any of the following: (1) fails to pay the unpaid charges by the extended payment date; or (2) fails to pay any ~~amortized-payment~~ amount due under the ~~amortization-payment plan~~ schedule, then the District may terminate water service. The District will post a final notice of intent to disconnect service in a prominent and conspicuous location at the service address at least five (5) business days before discontinuation of service. The final notice will not entitle the customer to any investigation or review by the District.

7. Procedures for Occupants or Tenants to Become Customers of the District.

7.1 Applicability. This Section 8 shall apply only when the property owner, landlord, manager, or operator of a residential service address is listed as the customer of record and has been issued a notice of intent to discontinue water service due to nonpayment.

7.2 Agreement to District Terms and Conditions of Service. The District will make service available to the actual residential occupants if each occupant agrees to the terms and conditions of service and meets the requirements of the District's rules and regulations. Notwithstanding, if one or more of the occupants are willing and able to assume responsibility for the subsequent charges to the account to the satisfaction of the District, or if there is a physical means, legally available to the District, of selectively discontinuing service to those occupants who have not met the requirements of the District's rules and regulations, the District shall make service available to the occupants who have met those requirements.

7.3 Verification of Tenancy. In order for the amount due on the delinquent account to be waived, an occupant who becomes a customer shall verify that the delinquent account customer of record is or was the landlord, manager, or agent of the dwelling. Verification may include, but is not limited to, a lease or rental agreement, rent receipts, a government document indicating that the occupant is renting the property, or information disclosed pursuant to Section 1962 of the Civil Code, at the discretion of the District.

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7.4 Methods of Establishing Credit. If prior service for a period of time is a condition for establishing credit with the District, residence and proof of prompt payment of rent for that period of time is a satisfactory equivalent.

7.5 Deductions from Rental Payment. Pursuant to Government Code Section 60371(d), any occupant who becomes a customer of the District pursuant to this Section 8 and whose periodic payments, such as rental payments, include charges for residential water service, where those charges are not separately stated, may deduct from the periodic payment each payment period all reasonable charges paid to the District for those services during the preceding payment period.

8. **Language for Certain Written Notices.** All written notices under Section 4 and Section 6.6 of this Policy shall be provided in English, Spanish, Chinese, Tagalog, Vietnamese, Korean, and any other language spoken by ten percent (10%) or more people within the District's service area.

9. **Other Remedies.** In addition to discontinuation of water service, the District may pursue any other remedies available in law or equity for nonpayment of water service charges, including, but not limited to: securing delinquent amounts by filing liens on real property, filing a claim or legal action, or referring the unpaid amount to collections. In the event a legal action is decided in favor of the District, the District shall be entitled to the payment of all costs and expenses, including attorneys' fees and accumulated interest.

10. **Discontinuation of Water Service for Other Customer Violations.** The District reserves the right to discontinue water service for any violations of District ordinances, rules, or regulations other than nonpayment.

11. **Fees and Charges Incurred.** Except as otherwise expressly stated in this Policy, any fees and charges incurred by a customer under any other rules, regulations, or policies of the District, including, but not limited to, delinquent charges, shall be due and payable as set forth therein.

12. **Decisions by District Staff.** Any decision which may be taken by the District's General Manager under this Policy may be taken by his or her designee.

MOULTON NIGUEL WATER DISTRICT
Summary of Financial Results
December 18, 2019

Year to date unaudited results of operations as of October 31, 2019, are summarized below.

Total operating revenues were \$24.3 million for the month ended, which came in at 36% of the budget. Total operating expenses ended at \$24.5 million, which amounted to 31% of the approved budget. Total Net Loss for the month ended was (\$5.5) million.

The net loss is not unusual at this time of the year. The District expects to receive \$28.6 million in property tax revenues during the fiscal year, and those revenues are typically received in December and April each fiscal year.

The District currently has \$3.7 million available in the Water Efficiency Fund for new projects, rebate applications or additional programs. The remaining balance considers \$4.0 million in approved water efficiency program commitments, along with \$1.8 million in expected grant reimbursements for the AMI Phase II and III projects.

The District has a total of \$95.6 million in Cash and Investments as of October 31, 2019, down approximately \$22.8 million from June 30, 2019. This change was anticipated in the Long-Range Financial Plan and is related to execution of the District's capital improvement program and scheduled debt service payments.

The 2019 Certificates of Participation did not close until November 2019, so that transaction, including the \$64.6 million issuance and the \$68 million in cash received, is not reflected in this report, but will be included in the November 30, 2019, report.

The District holds \$5.9 million invested in trustee accounts to satisfy covenants associated with outstanding debt issuances. As of October 31, 2019, the District met the minimum requirements associated with the 2015 and 2019 Revenue Bonds. The 2019 Reserve funds have been moved to the installment payment fund as a result of the early payoff of the District's outstanding loans, and that will be reflected in future monthly reports.

Based on the approved FY 19/20 Budget, the Board has established a target reserve level of \$69.7 million, and as of October 31, 2019, the District held \$70.0 million in reserves. Additionally, there is \$5.5 million available in the funds designated for capital projects. Subsequent to the date of this report, the District has received several property tax allotments from the County and monies from the 2019 Certificates.

Moulton Niguel Water District
All Funds - Budget Comparison Report
Year To Date Totals October 31, 2019

	1	2	3	=3-1	=1/3
Description	Fiscal Year to Date Actuals	Prior Fiscal Year to Date Actuals	Current Year Approved Budget	Current Year Budget Balance	% of Actuals to Budget
ALL FUNDS					
Operating Revenues					
Water Sales	\$ 11,168,126	\$ 11,168,080	\$ 31,512,227	\$ 20,344,101	35%
Recycled Water Sales	2,472,267	2,680,453	6,438,316	3,966,049	38%
Sewer Sales	8,725,968	8,318,422	24,065,352	15,339,384	36%
Water Efficiency	1,843,814	2,192,414	4,764,604	2,920,791	39%
Other Operating Income	101,940	156,321	911,436	809,496	11%
A Total Operating Revenue	24,312,115	24,515,690	67,691,935	43,379,821	36%
Operating Expenses					
Salaries ¹	4,760,991	4,393,389	14,413,800	9,652,809	33%
PERs Employer Contributions ¹	841,125	737,617	2,547,924	1,706,799	33%
Defined Contribution 401A ¹	83,980	76,798	265,601	181,621	32%
Educational Courses	11,043	6,815	85,934	74,891	13%
Travel & Meetings	115,431	75,792	387,140	271,709	30%
Recruitment & Employee Relations	2,503	13,755	93,813	91,310	3%
General Services	63,499	76,195	490,292	426,793	13%
Annual Audit	18,850	1,050	62,500	43,650	30%
Member Agencies O&M	-	91,486	541,714	541,714	0%
Dues & Memberships	72,074	53,208	203,082	131,007	35%
Consulting Services	669,279	472,101	3,538,300	2,869,021	19%
Equipment Rental	16,724	16,953	66,500	49,776	25%
District Fuel	69,919	103,435	315,000	245,081	22%
Insurance - District	168,003	142,868	532,850	364,847	32%
Insurance - Personnel	140,124	125,411	369,692	229,568	38%
Insurance - Benefits ¹	1,276,650	1,375,904	3,799,415	2,522,765	34%
Legal Services - Personnel	1,228	10,058	50,000	48,772	2%
Legal Services - General	54,835	524,693	1,020,000	965,165	5%
District Office Supplies	265,608	163,128	840,305	574,697	32%
District Operating Supplies	473,587	113,276	1,045,269	571,682	45%
Repairs & Maintenance - Equipment	390,551	243,230	1,074,550	683,999	36%
Repairs & Maintenance - Facilities	1,114,066	1,675,486	3,950,249	2,836,183	28%
Safety Program & Compliance Requirements	102,536	80,004	366,898	264,362	28%
Wastewater Treatment	2,287,385	2,339,764	9,471,915	7,184,530	24%
Special Outside Assessments ²	27,290	27,412	33,600	6,310	81%
Utilities	1,017,883	793,584	2,992,102	1,974,219	34%
Water Purchases	10,105,930	9,960,362	28,997,811	18,891,881	35%
Meter / Vault Purchases	1,558	2,642	-	(1,558)	n/a
Water Efficiency	390,895	250,535	1,883,000	1,492,105	21%
B Total Operating Expenses	24,543,547	23,947,134	79,439,255	54,895,708	31%
A-B Operating Income (Loss)	(231,432)	568,556	(11,747,320)	(11,515,888)	2%
Non-Operating Revenues (Expenses)					
Property Tax Revenue	659,806	691,583	28,599,883	27,940,077	2%
Investment Income ³	1,461,656	324,798	2,108,233	646,577	69%
Property Lease Income	589,223	579,880	1,800,265	1,211,042	33%
Interest Expense	(1,161,620)	(1,627,966)	(3,027,210)	(1,865,590)	38%
Misc. Non-Operating Income (Expense)	276,563	710,125	933,435	656,872	30%
Capacity Fees	51,810	63,235	384,339	332,529	13%
Demand Offset Fees	4,691	-	36,000	31,309	13%
C Total Non-Operating Revenue (Expenses)	1,882,128	741,656	30,414,606	28,532,478	6%
A-B+C Change in All Funds	\$ 1,650,696	\$ 1,310,212	\$ 18,667,286	\$ 17,016,590	
Other Non Cash Expenses					
Depreciation	7,102,766	6,514,535	-	(7,102,766)	n/a
D Total Change in Net Position	\$ (5,452,070)	\$ (5,204,324)	\$ 18,667,286	\$ 24,119,356	

Note: Totals may not sum due to rounding.

1. The District has capitalized \$743,531 in salaries and benefits through Oct. 2019 related to time spent on capital projects.

2. The District paid the FY 19-20 LAFCO fees to the County of Orange.

3. Investment income is comprised of realized income of \$576,469 and unrealized income of \$885,187.

Moulton Niguel Water District
All Funds - Budget Comparison Report
Year To Date Totals October 31, 2019
Legal Services - General

Firm	Water Use		Capital ²	Total
	General ¹	Efficiency ¹		
Alvarado Smith APC	\$ 5,224	\$ -	\$ -	\$ 5,224
Best Best & Krieger LLP	43,313	6,297	8,414	58,025
Total	48,537	6,297	8,414	63,249
Budget Amount	1,000,000	20,000	-	1,020,000
Budget Balance	\$ 951,463	\$ 13,703	n/a	\$ 965,165

Note: Totals may not sum due to rounding.

1. Legal Services - General on the previous page is made up of the General balance of \$48,537 and the \$6,297 Water Use Efficiency balance, for a total of \$54,835.
2. Capital legal services represent legal services rendered during construction and are capitalized by the District as part of the project. Each project has a separate budget for legal expenses and those individual budgets are not included as part of this schedule.

Consulting Services - Grant Administration

Firm	YTD	Overall
Nossaman LLP	\$ 11,000	\$ 82,500
West Yost Associates ³	21,402	148,962
Grants Received ⁴	(2,000,000)	(2,000,000)
Totals	\$ (1,967,598)	\$ (1,768,538)

3. West Yost compiled the AMI WaterSmart final closeout documents and prepared documents for additional grant applications, including the AMI Phase II project, and two additional Cal OES grant applications.

4. The District has received two grants from the US Bureau of Reclamation since the start of the grant administration program, totalling \$1.8 million. Additionally, the District has received a \$0.2 million grant from Metropolitan Water District of Southern California.

Moulton Niguel Water District
General Fund - Budget Comparison Report
Year To Date Totals October 31, 2019

	1	2	=1-2	=2/1
Description	Approved Budget	Fiscal Year to Date Actuals	Budget Balance	% of Actuals to Budget
GENERAL FUND				
<u>Operating Revenues</u>				
Water Sales	\$ 31,512,227	\$ 11,168,126	\$ 20,344,101	35%
Recycled Water Sales	6,438,316	2,472,267	3,966,049	38%
Sewer Sales	24,065,352	8,725,968	15,339,384	36%
Other Operating Income	911,436	101,940	809,496	11%
A Total Operating Revenue	62,927,331	22,468,301	40,459,030	36%
<u>Operating Expenses</u>				
Salaries	13,073,384	4,437,544	8,635,839	34%
PERs Employer Contributions	2,374,048	784,445	1,589,603	33%
Defined Contribution 401A	240,739	78,049	162,690	32%
Educational Courses	79,934	6,879	73,055	9%
Travel & Meetings	347,140	104,192	242,948	30%
Recruitment & Employee Relations	93,813	2,503	91,310	3%
General Services	490,292	63,499	426,793	13%
Annual Audit	62,500	18,850	43,650	30%
Member Agencies O&M	541,714	-	541,714	0%
Dues & Memberships	139,857	33,709	106,147	24%
Consulting Services	1,603,300	332,390	1,270,910	21%
Equipment Rental	66,500	16,724	49,776	25%
District Fuel	315,000	69,919	245,081	22%
Insurance - District	532,850	168,003	364,847	32%
Insurance - Personnel	339,306	133,162	206,144	39%
Insurance - Benefits	3,267,475	1,193,315	2,074,160	37%
Legal Services - Personnel	50,000	1,228	48,772	2%
Legal Services - General	1,000,000	48,537	951,463	5%
District Office Supplies	493,680	217,694	275,986	44%
District Operating Supplies	1,044,654	473,587	571,068	45%
Repairs & Maintenance - Equipment	969,300	378,957	590,343	39%
Repairs & Maintenance - Facilities	3,950,249	1,114,066	2,836,183	28%
Safety Program & Compliance Requirements	364,548	102,403	262,145	28%
Wastewater Treatment	9,471,915	2,287,385	7,184,530	24%
Special Outside Assessments	33,600	27,290	6,310	81%
Utilities	2,992,102	1,017,883	1,974,219	34%
Water Purchases	28,997,811	10,105,930	18,891,881	35%
Meter / Vault Purchases	-	1,558	(1,558)	n/a
B Total Operating Expenses	72,935,710	23,219,699	49,716,011	32%
A-B Operating Income (Loss)	(10,008,379)	(751,398)	(9,256,981)	8%
<u>Non-Operating Revenues (Expenses)</u>				
Property Tax Revenue	28,599,883	659,806	27,940,077	2%
Investment Income	2,076,671	852,309	1,224,362	41%
Property Lease Income	1,800,265	589,223	1,211,042	33%
Misc. Non-Operating Income (Expense)	250,812	52,461	198,351	n/a
C Total Non-Operating Revenue (Expenses)	32,727,631	2,153,799	30,573,832	7%
A-B+C Change in General Fund	\$ 22,719,252	\$ 1,402,402	\$ 21,316,850	10%
<u>Other Non Cash Expenses</u>				
Depreciation	-	7,102,766	(7,102,766)	n/a
D Total Change in Net Position	\$ 22,719,252	\$ (5,700,365)	\$ 28,419,617	

Note: Totals may not sum due to rounding.

Moulton Niguel Water District
 Water Efficiency Fund - Budget Comparison Report
 Year To Date Totals October 31, 2019

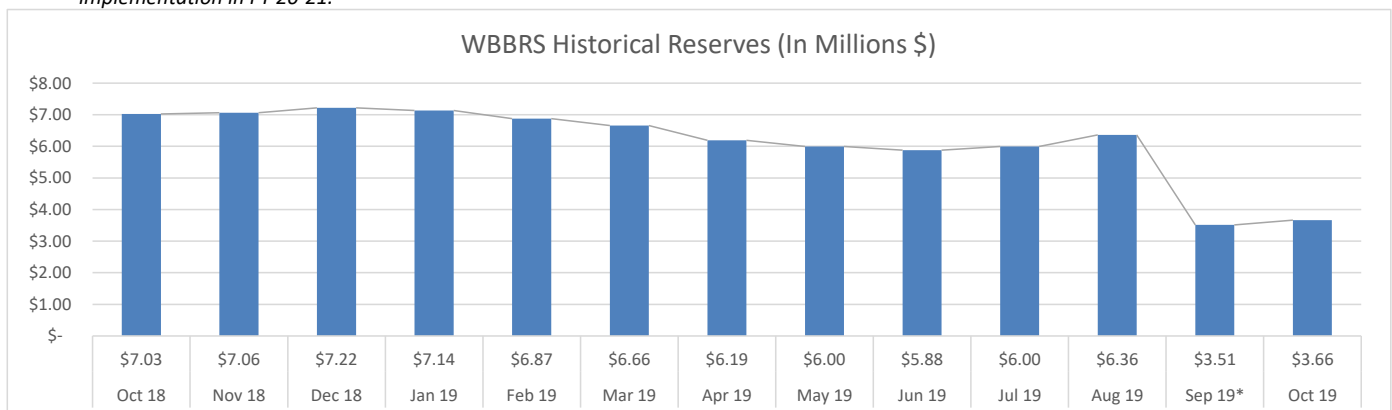
	1	2	=1-2	=2/1
Description	Approved Budget	Fiscal Year to Date Actuals	Budget Balance	% of Actuals to Budget
WATER EFFICIENCY FUND				
<u>Projected Operating Revenue</u>				
Water Efficiency	\$ 4,764,604	\$ 1,843,814	\$ 2,920,791	39%
A	Projected Total Operating Revenue	4,764,604	1,843,814	39%
<u>Projected Operating Expenses</u>				
Labor	2,101,479	476,356	1,625,123	23%
Educational Courses	6,000	4,164	1,836	69%
Travel & Meetings	40,000	11,239	28,761	28%
Dues & Memberships	63,225	38,365	24,860	61%
Consulting Services	1,935,000	336,889	1,598,111	17%
Legal Services	20,000	6,297	13,703	31%
Conservation supplies	347,240	47,914	299,326	14%
Repairs and Maintenance - Equipment	105,250	11,594	93,656	11%
Safety Program & Compliance Requirements	-	133	(133)	n/a
Water Efficiency	1,883,000	390,895	1,492,105	21%
B	Projected Total Operating Expenses	6,501,194	1,323,847	20%
A-B	Projected Operating Income (Loss)	(1,736,590)	519,966	-30%
<u>Projected Non-Operating Revenue</u>				
Demand offset fees	36,000	4,691	31,309	13%
Investment Income	31,562	45,424	(13,862)	144%
C	Projected Total Non-Operating Revenue	67,562	50,115	74%
A-B+C	Projected Change in Water Efficiency Fund	\$ (1,669,028)	\$ 570,081	\$ (2,239,109)

Note: Totals may not sum due to rounding.

Water Efficiency Available Net Position ¹

Description	Approved Budget	Fiscal Year to Date Actuals	Budget Balance
Fund Net Position, Beginning of Year	\$ 7,166,522	\$ 7,166,522	\$ 7,166,522
Projected Change in Water Efficiency Fund	(1,669,028)	570,081	(2,239,109)
Project Commitments		\$ (4,031,020)	
Capital Spending	(4,742,500)	(44,944)	
Fund Net Position, Year To Date Totals October 31, 2019	\$ 754,994	\$ 3,660,639	

1. In addition to realized expenditures, there is approximately \$4,031,020 in project commitments, and \$44,944 in capital spending, reducing the available WBBRS reserve balance to \$3,660,639. Additionally, the District anticipates spending another \$4.1 million on Phase III of the AMI implementation in FY 20-21.



*Note: The District awarded two contracts for the implementation of the AMI Phase III project totalling \$5.9 million.

#12.

**MOULTON NIGUEL WATER DISTRICT
STATEMENT OF NET POSITION**

	(Unaudited) October 31, 2019	(Unaudited) June 30, 2019
CURRENT ASSETS:		
Cash and investments ¹	\$ 15,421,272	\$ 17,470,320
Accounts receivables:		
Water and sanitation charges	3,797,522	3,761,531
Property taxes	-	309,158
Other accounts receivable	495,380	1,851,349
Interest receivable	508,192	802,315
Inventory	1,005,435	1,054,341
Prepaid expenses	2,466,725	750,393
TOTAL CURRENT ASSETS	23,694,526	25,999,407
NONCURRENT ASSETS:		
Investments ¹	80,149,963	100,897,457
Restricted cash and investments with fiscal agent	5,853,313	5,888,857
Retrofit loans receivable	482,222	490,468
Capital assets, net of accumulated depreciation	375,734,624	381,319,918
Capital assets not being depreciated:		
Land	1,091,910	1,091,910
Construction in progress ¹	23,542,787	13,508,163
TOTAL NONCURRENT ASSETS	486,854,819	503,196,773
TOTAL ASSETS	510,549,345	529,196,180
DEFERRED OUTFLOW OF RESOURCES:		
Deferred Charges on Refunding	382,913	415,501
Deferred Items related to Pension	5,122,331	5,122,331
Deferred Items related to OPEB	479,511	479,511
TOTAL DEFERRED OUTFLOW OF RESOURCES	5,984,755	6,017,343
TOTAL ASSETS AND DEFERRED OUTFLOW OF RESOURCES \$	516,534,100	\$ 535,213,523

1. Total cash and investments has changed (\$22,832,086) during this fiscal year. \$11,545,430 has been spent on capital projects and \$9,609,938 has been spent on debt service.

MOULTON NIGUEL WATER DISTRICT
STATEMENT OF NET POSITION

	(Unaudited) October 31, 2019	(Unaudited) June 30, 2019
CURRENT LIABILITIES:		
Accounts payable	\$ 7,283,666	\$ 11,487,184
Interest payable	483,078	1,069,054
Compensated absences	1,074,153	869,518
Current portion of long-term debt:		
Bonds payable	1,990,000	3,360,000
Loans Payable ²	-	1,283,260
	10,830,897	18,069,016
TOTAL CURRENT LIABILITIES	10,830,897	18,069,016
LONG-TERM LIABILITIES		
Compensated absences	358,051	289,839
Long-term debt:		
Bonds payable	55,180,000	57,170,000
Loans payable ²	-	3,805,058
Net Pension Liability	20,386,747	20,386,747
Net OPEB Liability	1,540,822	1,540,822
	77,465,620	83,192,466
TOTAL LONG-TERM LIABILITIES	77,465,620	83,192,466
Bond Discount/Premium	10,863,068	11,116,102
TOTAL LIABILITIES	99,159,585	112,377,584
DEFERRED INFLOW OF RESOURCES:		
Deferred Items related to Pension	1,184,247	1,184,247
Deferred items related to OPEB	14,312	14,312
	1,198,559	1,198,559
TOTAL DEFERRED INFLOW OF RESOURCES	1,198,559	1,198,559
NET POSITION:		
Net investment in capital assets	332,719,166	319,601,072
Restricted for capital projects	223,219	375,294
Unrestricted	83,233,571	101,661,014
	416,175,956	421,637,380
TOTAL NET POSITION	416,175,956	421,637,380
TOTAL LIABILITIES, DEFERRED INFLOW OF RESOURCES, AND NET POSITION	\$ 516,534,100	\$ 535,213,523

Note: Totals may not sum due to rounding.

2. The District paid off approximately \$4.1 million in outstanding loans in September 2019, releasing approximately \$4.5 million in restricted cash reserves.

#12.

MOULTON NIGUEL WATER DISTRICT
RESTRICTED CASH AND INVESTMENTS WITH FISCAL AGENT
As of October 31, 2019

	Reserve Requirement	(Unaudited) Balance 10/31/2019	Over (Under) Requirement	(Unaudited) Balance 6/30/2019	Outstanding Debt Balance 10/31/2019
Restricted Cash and Investments:					
2014 Consolidated Ref Bonds	\$ -		\$ -	\$ 2	\$ -
2015 Refunding Bonds	-	95	95	15	-
2015 Refunding Reserve	1,226,500	1,320,010	93,510	1,305,064	8,565,000
2019 Revenue Bonds Reserve	4,487,500	4,533,123	45,623	4,490,894	48,605,000
2019 Revenue Bonds	-	86	86	92,882	-
Total Restricted Trust Accounts	\$ 5,714,000	\$ 5,853,313	\$ 139,313	\$ 5,888,857	\$ 57,170,000

Note: Totals may not sum due to rounding.

FY	Payoff Schedule			
	Principal*	Interest	Fees	Totals
2020	\$ 4,643,260	\$ 3,027,210	\$ 1,655	\$ 7,672,124
2021	3,297,912	2,880,057	1,119	6,179,088
2022	3,418,059	2,753,035	229	6,171,323
2023	3,354,087	2,620,508	-	5,974,595
2024	2,300,000	2,487,750	-	4,787,750
2025 ¹	2,055,000	2,378,875	-	4,433,875
2026	2,155,000	2,273,625	-	4,428,625
2027	2,265,000	2,163,125	-	4,428,125
2028	2,380,000	2,046,100	-	4,426,100
2029	2,500,000	1,925,000	-	4,425,000
2030	2,620,000	1,797,000	-	4,417,000
2031	2,755,000	1,662,625	-	4,417,625
2032	2,890,000	1,521,500	-	4,411,500
2033	3,035,000	1,373,375	-	4,408,375
2034	3,185,000	1,217,875	-	4,402,875
2035	3,345,000	1,054,625	-	4,399,625
2036	3,515,000	883,125	-	4,398,125
2037	3,690,000	703,000	-	4,393,000
2038	3,875,000	513,875	-	4,388,875
2039	4,070,000	315,250	-	4,385,250
2040	4,270,000	106,750	-	4,376,750
	\$ 65,618,318	\$ 35,704,285	\$ 3,002	\$ 101,325,605

*Note: Total outstanding balance reconciles to balance as of the most recent audited fiscal year. Total principal includes \$5,088,318 in loans that were fully paid off during FY 19-20.

1. Principal payments starting in FY 2025 all relate to the 2019 Revenue Refunding Bonds.

MOULTON NIGUEL WATER DISTRICT
NET POSITION
As of October 31, 2019

		(Unaudited)		(Unaudited)	
		Balance		Balance	
	Reserve Target	10/31/2019	Net Change	6/30/2019	
Adopted Reserve Targets ¹					
Designated for Self Insurance Reserve	\$ 250,000	\$ 250,779	\$ 9,355	\$ 241,424	
Designated for Rate Stabilization	14,299,942	14,634,205	(192,575)	14,826,780	
Designated for Emergency Reserves	35,300,000	35,300,000	-	35,300,000	
Designated for Operating Reserves ²	19,859,814	19,859,814	(4,341,967)	24,201,781	
Total Adopted Reserve Targets	\$ 69,709,755	\$ 70,044,798	\$ (4,525,187)	\$ 74,569,985	
	FY Capital				
	Budget ⁴				
Designated for Capital Projects ³					
Designated for Replacement and Refurbishment	\$ 43,624,388	3,657,078	\$ 631,314	\$ 3,025,764	
Designated for Water Supply Reliability	-	-	(346,493)	346,493	
Designated for Planning and Construction	21,413,204	1,795,091	(14,757,113)	16,552,204	
Total Designated for Capital Projects	\$ 65,037,592	\$ 5,452,169	\$ (14,472,292)	\$ 19,924,461	
Other amounts					
Designated for Water Efficiency (WBBRS) ⁵		\$ 7,736,603	\$ 570,081	\$ 7,166,522	
Restricted for Capital Facilities (Projects)		223,219	(152,075)	375,294	
Net Investment in Capital Assets ⁶		332,719,166	13,118,094	319,601,072	
Total Other amounts		\$ 340,678,988	\$ 13,536,100	\$ 327,142,888	
Total Net Position		\$ 416,175,956	\$ (5,461,378)	\$ 421,637,334	

Note: Totals may not sum due to rounding.

1. Board designated balances represent available cash in that fund.

2. General Operating Reserves include the unrestricted, undesignated balance, and other general District accrued cash flows. This amount includes the remaining total cash balance of \$30,504,195.

3. Balances in the Capital Project Funds represent available and designated cash to fund identified CIP projects.

4. FY Budget also includes capital expenses of \$1,949,601 and \$4,742,500 in Funds 1 and 6, respectively, bringing the total CIP

5. In addition to realized expenditures, there is approximately \$4,031,020 in project commitments, and \$44,944 in capital spending, reducing the available WBBRS reserve balance to \$3,660,639. Additionally, the District anticipates spending another \$4.1 million on Phase III of the AMI implementation in FY 20-21.

6. Net Investment in Capital Assets calculated as follows:

Total capital assets	\$ 400,369,321
Less capital related debt	(68,033,068)
Add deferred charges related to debt	382,913
Total Net Investment in Capital Assets	\$ 332,719,166

**MOULTON NIGUEL WATER DISTRICT
SUMMARY OF DISBURSEMENTS
FOR THE MONTH OF NOVEMBER**

Summary of Disbursements in November:

General Fund Disbursements	\$	9,173,344
<u>Other Fund Disbursements:</u>		
Water Efficiency Fund		277,606
Replacement & Refurbishment Fund		4,160,372
Planning & Construction Fund		1,284,977
Total Disbursements for all Funds	\$	14,901,057

Detail of Major Expenditures in November:

1. South Orange County Wastewater Authority (SOCWA)			
FY 19/20 Q2 Deposits		\$	4,694,347
2. Municipal Water District of Orange County (MWDOC)			
September Water Purchases 2409.6 AF	2,327,930		
September Readiness to Serve	66,362		
September Capacity Charge	27,463		
September Turf Removal, Smart Timer Rebates, and Rotating Nozzles	15,325		
September SCP and SAC Operation Surcharges	10,670		
September WaterSmart Residential Rebate Programs	6,800		2,454,550
3. Layton Construction Company			
CMAR Construction Phase Services, progress payment #6			1,125,291
4. Irvine Ranch Water District (IRWD)			
FY 19/20 Q1 Baker Water Treatment Plant O&M			457,090
5. Vadnais Trenchless Services, Inc.			
C #2017009 and C#2017014 Portable and Recycle Water Pipeline Replacement, progress payment #2			401,755
6. Gateway Pacific Contractors, Inc.			
C#2017003 Reservoir Management Systems Replacement, progress payment #6			377,314
7. T.E. Roberts, Inc.			
Emergency Repair at multiple Locations			333,085
8. Ferreira Construction Co. Inc.			
C #2017006 Valve Replacement, progress payment #8	128,323		
Emergency Repair at multiple Locations	116,752		245,075
9. Santa Margarita Water District			
FY 19/20 Q1 Allocation for Joint Owned Facilities	124,022		
FY 19/20 Q1 Capital Project share expenses	949		124,971
10. Advanced Industrial Services, Inc.			
C #2018020 Saddleback Reservoir Rehabilitation, progress payment #6			118,085
11. Hardy & Harper, Inc.			
Asphalt Paving service at multiple locations			113,892
12. Iflow Energy Solutions, Inc.			
Meters Inventory			113,346
13. Pacific Hydrotech Corp.			
Plant 3A Water System Improvements			103,186