



moulton niguel water district

**ENGINEERING & OPERATIONS
BOARD OF DIRECTORS' MEETING
MOULTON NIGUEL WATER DISTRICT**

27500 La Paz Road, Laguna Niguel

September 18, 2017

8:30 AM

Approximate Meeting Time: 3 Hours

1. CALL MEETING TO ORDER
2. APPROVE THE MINUTES OF THE AUGUST 14, 2017 ENGINEERING AND OPERATIONS BOARD OF DIRECTORS' MEETING

3. PUBLIC COMMENTS

Persons wishing to address the Board of Directors on matters not listed on the Agenda may do so at this time. "Request To Be Heard" forms are available at the entrance to the Board Room. Comments are limited to five minutes unless further time is granted by the Presiding Officer. Submit form to the Recording Secretary prior to the beginning of the meeting.

Those 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.

DISCUSSION ITEMS

4. Construction Contract Award for 920 Zone Loop Pipeline
5. Construction Contract Award for ETM Pipeline Removal in San Juan Creek
6. Construction Contract Award for Plant 3A Flood Protection
7. Professional Services Agreement for Potable, Recycled, and Sewer Pipeline Replacements at I-5 and Oso Creek
8. Professional Services Agreement for the Recycled Water Optimization Study

INFORMATION ITEMS

9. Water Loss Reporting Requirement
10. Operations Center Consolidation Improvement Project Update
11. Future Agenda Items (Any items added under this section are for discussion at future meetings only)

12. Late Items (Appropriate Findings to be Made)
 - a. Need to take immediate action; and
 - b. Need for action came to District's attention after Agenda Posting. [Requires 2/3 vote (5 members) or unanimous vote if less than 2/3 are present]

CLOSED SESSION

13. CONFERENCE WITH REAL PROPERTY NEGOTIATORS

Pursuant to Government Code Section 54956.8

Property: E/O Camino Capistrano and approximately 1,700 feet S/O Oso Parkway, Mission Viejo, APN 636-021-13, 636-012-17

Agency negotiator: Rod Woods, Director of Engineering

Negotiating party: Cal Trans

Under negotiation: price and terms of payment

14. CONFERENCE WITH LEGAL COUNSEL - EXISTING LITIGATION

(Paragraph (1) of subdivision (d) of Government Code Section 54956.9)

Name of case: SOCWA, City of Laguna Beach, South Coast Water District and Emerald Bay Service District v. Moulton Niguel Water District

Case number 30-2017-00923143-CU-BC-CJC

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, 27500 La Paz Road, Laguna Niguel, CA ("District Office"). If such writings are distributed to members of the Board less than seventy-two (72) 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.



moulton niguel water district

DRAFT

MINUTES OF THE REGULAR MEETING OF THE ENGINEERING & OPERATIONS BOARD OF DIRECTORS OF THE MOULTON NIGUEL WATER DISTRICT

August 14, 2017

A Regular Meeting of the Engineering & Operations Board of Directors of the Moulton Niguel Water District was held at the District offices, 27500 La Paz Road, Laguna Niguel, California, at 8:30 AM on August 14, 2017. There were present and participating:

DIRECTORS

Duane Cave	Director
Scott Colton	Vice President/Chair
Richard Fiore	Director
Donald Froelich	President
Gary Kurtz	Director (via teleconference)
Larry Lizotte	Director
Brian Probolsky	Vice President (arrived at 8:35 a.m.)

Also present and participating were:

STAFF MEMBERS, LEGAL COUNSEL, AND MEMBERS OF THE PUBLIC

Joone Lopez	General Manager
Matt Collings	Assistant General Manager
Gina Hillary	Director of Human Resources
Drew Atwater	Director of Planning
Jake Vollebregt	Director of Regional & Legal Affairs
Rod Woods	Director of Engineering
Todd Novacek	Director of Operations
Jeff Ferre	Best, Best, & Krieger (General Counsel)
Paige Gulck	Board Secretary
Tim Bonita	Recording Secretary
Trevor Agrelius	MNWD
Johnathan Cruz	MNWD
Todd Dmytryshyn	MNWD
David Larsen	MNWD
Steve Merk	MNWD

#2.

Medha Patel	MNWD
Lindsey Stuvick	MNWD
Alex Thomas	MNWD
Erin Warn	MNWD
Jayson Schmidt	Chandler Asset Management
Joel Bishop	Member of the Public

1. CALL MEETING TO ORDER
2. APPROVE THE MINUTES OF THE JULY 17, 2017 ENGINEERING AND OPERATIONS BOARD OF DIRECTORS' MEETING

MOTION DULY MADE BY RICHARD FIORE AND SECONDED BY LARRY LIZOTTE, MINUTES OF THE JULY 17, 2017 ENGINEERING AND OPERATIONS BOARD OF DIRECTORS' MEETING WERE APPROVED AS PRESENTED. A ROLL CALL VOTE WAS TAKEN AND THE VOTE WAS UNANIMOUS WITH DIRECTORS DUANE CAVE, SCOTT COLTON, RICHARD FIORE, DONALD FROELICH, GARY KURTZ, AND LARRY LIZOTTE ALL VOTING 'AYE'. DIRECTOR BRIAN PROBOLSKY WAS ABSENT.

3. PUBLIC COMMENTS

None.

PRESENTATION ITEMS

4. Quarterly Investment Report - Chandler Asset Management

Jayson Schmidt presented the Quarterly Investment Report. Key topics presented were the account profile and economic update.

Brian Probolsky arrived at 8:35 a.m.

DISCUSSION ITEMS/ACTION ITEMS

5. **CONSTRUCTION CONTRACT AWARD FOR VALVE REPLACEMENTS**

It is recommended that the Board of Directors award the construction services contract to Ferreira Construction Co, Inc. in the amount of \$726,695; authorize the General Manager or Assistant General Manager to execute the contract; and to approve change orders up to 15% of the contract value.

Alex Thomas provided details on the item. Staff recommends that the Board of Directors award the construction services contract to Ferreira Construction Co, Inc. in the amount of \$726,695; authorize the General Manager or Assistant General Manager to execute the contract; and to approve change orders up to 15% of the contract value. Discussion

ensued regarding the item.

MOTION DULY MADE BY DUANE CAVE AND SECONDED BY DONALD FROELICH, ITEM 5 WAS APPROVED AS PRESENTED. A ROLL CALL VOTE WAS TAKEN AND THE VOTE WAS UNANIMOUS WITH DIRECTORS DUANE CAVE, SCOTT COLTON, RICHARD FIORE, DONALD FROELICH, GARY KURTZ, LARRY LIZOTTE, AND BRIAN PROBOLSKY ALL VOTING 'AYE'.

6. AMENDMENT NO. 2 TO THE PROFESSIONAL SERVICES AGREEMENT FOR 2016-17 RESERVOIR MANAGEMENT SYSTEMS REPLACEMENT

It is recommended that the Board of Directors approve Amendment No. 2 to the Professional Services Agreement with LEE & RO, Inc. in the amount of \$59,224 for a revised total not-to-exceed amount of \$258,887; and authorize the General Manager or Assistant General Manager to execute the amendment.

Todd Dmytryshyn provided information on the item. Staff recommends that the Board of Directors approve Amendment No. 2 to the Professional Services Agreement with LEE & RO, Inc. in the amount of \$59,224 for a revised total not-to-exceed amount of \$258,887; and authorize the General Manager or Assistant General Manager to execute the amendment. Discussion ensued regarding the terms of the Amendment.

MOTION DULY MADE BY DONALD FROELICH AND SECONDED BY DUANE CAVE, ITEM 6 WAS APPROVED AS PRESENTED. A ROLL CALL VOTE WAS TAKEN AND THE VOTE WAS UNANIMOUS WITH DIRECTORS DUANE CAVE, SCOTT COLTON, RICHARD FIORE, DONALD FROELICH, GARY KURTZ, LARRY LIZOTTE, AND BRIAN PROBOLSKY ALL VOTING 'AYE'.

7. SPOILS REMOVAL SERVICE AGREEMENT

It is recommended that the Board of Directors authorize the General Manager or Assistant General Manager to execute a three year Spoils Removal Service Agreement with Goodwin Enterprises Inc., in the amount of \$96,000 per year, with a total not-to-exceed agreement amount of \$288,000.

Rod Woods provided information on the item. Staff recommends that the Board of Directors authorize the General Manager or Assistant General Manager to execute a three year Spoils Removal Service Agreement with Goodwin Enterprises Inc., in the amount of \$96,000 per year, with a total not-to-exceed agreement amount of \$288,000. Discussion ensued regarding the details of the agreement.

MOTION DULY MADE BY DONALD FROELICH AND SECONDED BY GARY KURTZ, ITEM 7 WAS APPROVED AS PRESENTED. A ROLL CALL VOTE WAS TAKEN AND THE VOTE WAS UNANIMOUS WITH DIRECTORS DUANE CAVE, SCOTT COLTON, RICHARD FIORE, DONALD FROELICH, GARY KURTZ, LARRY LIZOTTE, AND BRIAN PROBOLSKY ALL VOTING 'AYE'.

8. DISTRICT LOCAL AGENCY INVESTMENT FUND “LAIF” AUTHORIZED REPRESENTATIVES (RESOLUTION 17-__)

It is recommended that the Board of Directors approve the resolution entitled, “Ratifying Continued Investment of District Funds in the Local Agency Investment Fund and Approving Changes in Authorized District Representatives”.

Trevor Agrelius provided details on the item. On a motion by Director Probolsky and seconded by Director Kurtz, the board adopted Resolution entitled, “Ratifying Continued Investment of District Funds in the Local Agency Investment Fund and Approving Changes In Authorized Representatives,” with the noted change to delete the reference to “treasurer” in section 2 of the resolution.

A ROLL CALL VOTE WAS TAKEN AND THE VOTE WAS UNANIMOUS WITH DIRECTORS DUANE CAVE, SCOTT COLTON, RICHARD FIORE, DONALD FROELICH, GARY KURTZ, LARRY LIZOTTE, AND BRIAN PROBOLSKY ALL VOTING ‘AYE’.

INFORMATION ITEMS

9. Rate Study Update

Drew Atwater provided an update on the rate study.

10. Water Usage Update

Lindsey Stuvick provided the Water Usage Update. The District achieved a 14% reduction for July 2017.

11. Future Agenda Items (Any items added under this section are for discussion at future meetings only)

None.

12. Late Items (Appropriate Findings to be Made)

None.

CLOSED SESSION

13. CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION

Significant exposure to litigation pursuant to paragraph (2) of subdivision (d) of Government Code Section 54956.9

Receipt of claim: Richard Toumayan

The Board entered closed session at 9:58 a.m. and exited at 10:07 a.m. Jeff Ferre provided the following report.

The Board met in closed session for Item 13 pursuant to Government Code Section 54956.9(d)(2). A motion was made by Director Cave, seconded by Director Lizotte, to reject the claim and to provide the appropriate notice to the claimant and to forward the matter to ACWA/JPIA.

THE VOTE WAS UNANIMOUS WITH DIRECTORS DUANE CAVE, SCOTT COLTON, RICHARD FIORE, DONALD FROELICH, LARRY LIZOTTE, AND BRIAN PROBOLSKY ALL VOTING 'AYE'.

ADJOURNMENT

The meeting was adjourned at 10:09 a.m.

Respectfully submitted,

Tim Bonita
Recording Secretary



moulton niguel water district

STAFF REPORT

TO: Board of Directors **MEETING DATE:** September 18, 2017

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

SUBJECT: Construction Contract Award for 920 Zone Loop Pipeline

SUMMARY:

Issue: Board action is required for the Notice Inviting Sealed Proposals (Bids) for the 920 Zone Loop Pipeline, Project No. 2016.015.

Recommendation: It is recommended that the Board of Directors award the construction services contract to T.E. Roberts, Inc. in the amount of \$165,892; 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. 2016.015 is budgeted in Fund 7, Rehabilitation and Replacement with a current budget of \$180,000. The proposed project budget is \$222,481. The additional funds required will be from project savings in Fund 7; the overall Fiscal Year 2017-18 CIP budget will not be impacted.

Reviewed by Legal: Yes

BACKGROUND:

The project involves the installation of approximately 230 linear feet of 8-inch PVC pipe within an existing District easement and Pacific Island Drive in the City of Laguna Niguel. Refer to Exhibit A. The work also includes the replacement of related valves and appurtenances. The new pipeline will provide a secondary connection to a large service area, increasing reliability for the customers served by the potable water distribution system in the project area.

Construction documents for the 920 Zone Loop Pipeline project were prepared by AKM Consulting Engineers utilizing the on-call engineering services agreement.

#4.

Construction Contract Award for 920 Zone Loop Pipeline

September 18, 2017

Page 2 of 2

DISCUSSION:

A request for bids was issued to six qualified construction contractors. The District received six sealed bids for the subject contract on August 24, 2017. The table below summarizes the received bids:

Firm	Bid
T.E. Roberts, Inc.	\$165,892
Shoffeitt Pipeline, Inc.	\$171,500
Kennedy Pipeline Construction	\$171,997
GCI Construction, Inc.	\$188,660
Paulus Engineering, Inc.	\$199,897
Ferreira Construction Co., Inc.	\$212,898
Engineer's Estimate	\$180,700

Staff has determined that the lowest responsible and responsive bidder was T.E. Roberts, Inc. Staff has completed its review of the contract documents and has determined that they are in order. T.E. Roberts Inc, has performed quality work in the past for the District and is well-qualified to perform this type of work. The project costs have increased above the project budget as a result of a change in the project scope. During design, District staff added several new valves, including an insert valve, to provide more system reliability and minimize impacts to customers during construction.

SUMMARY OF PROJECT BUDGET:

	Project Budget	Proposed / Approved Contract	Proposed / Authorized Contingency	Total Proposed / Authorized Amount
Project Items				
Engineering	\$35,000*	\$35,000	\$0	\$35,000
Construction	\$140,000	\$165,892	\$16,589	\$182,481
Legal, Permits, District Labor	\$5,000*	\$5,000	\$0	\$5,000
Totals	\$180,000	\$205,892	\$16,589	\$222,481

*\$20,467 has been expended to date.

 Currently Proposed Amount

Attachment: Exhibit A – Location Map



Path: C:\GIS\Projects\Projects_2017\920_ZoneLoopPipeline_Alex\Maps\920ZoneLoopPipeline.mxd



Scale = 1:1,000

920 Zone Loop Pipeline
Contract No. 2016.015
Location Map
Exhibit "A"



moulton niguel water district

STAFF REPORT

TO: Board of Directors **MEETING DATE:** September 18, 2017

FROM: Rod Woods, Director of Engineering
David Larsen, Principal Engineer

SUBJECT: Construction Contract Award for ETM Pipeline Removal in San Juan Creek

SUMMARY:

Issue: Staff has requested quotations for the ETM Pipeline Removal in San Juan Creek Project, Project 2016.001.

Recommendation: It is recommended that the Board of Directors award the construction services contract to Paulus Engineering, Inc. in the amount of \$113,183 contingent upon a determination by the General Manager or Assistant General Manager that all regulatory permits have been secured with favorable conditions; authorize the General Manager or Assistant General Manager to execute the contract; and to approve change orders up to 10% of the contract value. Santa Margarita Water District will reimburse 28% of the costs as partners in the project.

Fiscal Impact: Project 2016.001 is budgeted in Fund 7, Rehabilitation and Replacement with a current project budget of \$250,000. SMWD, as co-owner of the facility, will reimburse 50-percent of the project costs.

Reviewed by Legal: Yes

BACKGROUND:

Plant 3A provides wastewater treatment to Moulton Niguel Water District (MNWD) and Santa Margarita Water District (SMWD) service areas. A portion of the treated effluent is supplied to MNWD and SMWD to meet recycled water demands. The portion of treated effluent that is not used as recycled water is discharged to a land outfall pipeline, the Plant 3A Effluent Transmission Main (ETM). The last reach of the ETM is located along the west bank of San Juan Creek, approximately 1,000 feet downstream of the confluence of Trabuco and San Juan Creeks. MNWD and SMWD

#5.

Construction Contract Award for ETM Pipeline Removal in San Juan Creek

September 18, 2017

Page 2 of 3

are co-owners of the ETM, and by agreement, MNWD is responsible for operation of the pipeline. Costs for this facility are allocated 50 percent to MNWD and 50 percent to SMWD.

In October 2016, MNWD completed a project to micro-tunnel a new pipe casing and replacement pipe under San Juan Creek, Project 2009.115. As a condition of obtaining a permit for the project, Orange County Public Works required that the existing pipeline be removed from the creek-bed after the new pipeline was installed.

In January 2017, MNWD executed an agreement for consulting services with Dudek & Associates, Inc. to provide environmental services and permit application assistance for the ETM Pipeline Removal in San Juan Creek, Project 2016.001. In July 2017, the Board adopted a Resolution approving the Mitigated Negative Declaration for the Project and directed staff to solicit cost proposals for the completion of the construction work.

The construction work for the Project includes the removal of 180-feet of concrete-encased 30-inch ductile iron pipe within the limits of the San Juan Creek, installing concrete plugs in the ends of the abandoned pipe, and restoring the creek-bed to its pre-construction condition. All work is to comply with the requirements of the permits from the regulatory agencies.

DISCUSSION:

A pre-quotation meeting was held with five qualified contractors. On July 28, 2017, the District received four quotations and the adjusted fees are summarized below:

Contractor / Firm	Proposed Fee
Paulus Engineering, Inc.	\$113,183
Kennedy Pipeline Construction	\$133,555
Ferreira Construction Co, Inc.	\$142,754
TE Roberts, Inc.	\$167,200

Staff performed a thorough review of the quotations received and determined the lowest responsible quotation was from Paulus Engineering, Inc., who has performed quality work for the District in the past and is well-qualified to perform this type of work.

It should be noted that due to fish migration and bird nesting seasons, the work must be completed between September 1 and November 30. The regulatory permits are anticipated to be issued in sufficient time to complete the project prior to November 30. However, since the permits have yet to be issued, there is uncertainty regarding the conditions and restrictions associated with the permits. Therefore, this construction contract would only be executed if the regulatory permits are obtained in a timely manner and do not contain unfavorable conditions that would prevent the

Construction Contract Award for ETM Pipeline Removal in San Juan Creek

September 18, 2017

Page 3 of 3

contract from being completed on time. If the permits are not obtained in time or contain unfavorable conditions, the construction work will be re-bid for completion in September 2018.

SUMMARY OF PROJECT BUDGET:

	Project Budget	Proposed / Approved Contract	Proposed / Authorized Contingency	Total Proposed / Authorized Amount
Project Items				
Environmental Consultant*	\$60,000	\$60,000	\$0	\$60,000
CEQA Compliance*	\$35,000	\$35,000	\$0	\$35,000
Construction	\$125,000	\$113,183	\$11,318	\$124,501
Inspection / Permits / Other*	\$30,000	\$30,000	\$0	\$30,000
Totals	\$250,000	\$238,183	\$11,318	\$249,501

*\$58,246 has been expended to date.

 Currently Proposed Amount

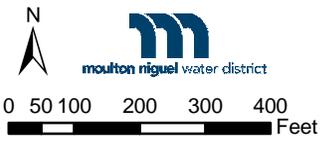
**Santa Margarita Water District owns 50% of the capacity of the 30-inch ETM. Cost reimbursement for this project will occur accordingly.

Attachment: Exhibit A – Location Map



Path: G:\GIS\Projects\Projects_2017\Staff\Report_Larson\Maps\ETM_PipelineRemoval.mxd

-  ETM Pipeline Removal
-  Project Area



Scale = 1" = 500'
-15-

**Exhibit "A" Location Map
ETM Pipeline Removal
in San Juan Creek
Project No. 2016.001**



moulton niguel water district

STAFF REPORT

TO: Board of Directors **MEETING DATE:** September 18, 2017

FROM: Rod Woods, Director of Engineering
David Larsen, Principal Engineer

SUBJECT: Construction Contract Award for Plant 3A Flood Protection

SUMMARY:

Issue: Board action is required for the Notice Inviting Sealed Proposals (Bids) for the Plant 3A Flood Protection, Project No. 2016.016.

Recommendation: It is recommended that the Board of Directors award the construction services contract to Paulus Engineering, Inc. in the amount of \$369,789; authorize the General Manager or Assistant General Manager to execute the contract and to approve change orders up to 10% of the contract value. Santa Margarita Water District will reimburse 50% of the costs as partners in the project.

Fiscal Impact: Project No. 2016.016 is budgeted in Fund 14, Planning and Construction with a current project budget of \$500,000. The proposed project budget is \$722,518. The additional funds required are available from Project savings in Fund 14; the overall Fiscal Year 2017-18 CIP budget will not be impacted.

Reviewed by Legal: Yes

BACKGROUND:

Plant 3A is located immediately adjacent to the La Paz Creek. There have been several instances of flooding at the northerly end of Camino Capistrano Road near the entrance gate to Plant 3A. The flooding is primarily due to the buildup of sedimentation and dense vegetation within the boundaries of the La Paz Creek.

#6.

Construction Contract Award for Plant 3A Flood Protection

September 18, 2017

Page 2 of 3

The flooding of Camino Capistrano Road near the entrance of Plant 3A has the potential to cause Plant 3A to flood, which could contaminate La Paz Creek and waters downstream. Additionally, past flooding events near the entrance of Plant 3A have caused staff to be unable to enter and exit the facility due to the accumulation of water at the entrance to the site.

A phased implementation of the various improvements was implemented to mitigate the potential flooding of the facility. For the first phase of the project, the District obtained a Streambed Alteration Agreement from the California Department of Fish and Wildlife to allow the removal of non-native vegetation, debris and dead material, and the maintenance of the creek boundaries to encourage regrowth of native plant species. In December 2016, the District contracted with Habitat Restoration Science, Inc. to perform the vegetation removal and maintenance work, under the oversight of LSA Associates, the District's environmental consultant.

The second phase of the project consists of the construction of a permanent concrete barrier wall and drainage system between the La Paz Creek and the access road to Plant 3A. The wall was designed to provide a level of protection to the facility during periods of creek flooding. Construction documents were prepared by Tetra Tech utilizing the On-Call Engineering Services agreement.

DISCUSSION:

A request for bids was issued to six qualified contractors. The District received three sealed bids for the subject contract on August 29, 2017. The table below summarizes the bids received:

Firm	Bid
Paulus Engineering, Inc.	\$369,789.00
SS Mechanical Construction Corp.	\$414,997.75
Pacific Hydrotech Corporation	\$430,385.00
Engineer's Estimate	\$364,000.00

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

The project budget increase can be attributed to surface drainage provisions between the barrier wall and the creek bank that were included in the final design. These improvements were added to mitigate any water that may become trapped between the creek banks and the concrete barrier wall, which would degrade the subgrade of the wall.

Construction Contract Award for Plant 3A Flood Protection

September 18, 2017

Page 3 of 3

This project is part of the common costs for the Plant 3A facility, of which Santa Margarita Water District's proportionate share is 28-percent.

SUMMARY OF PROJECT BUDGET:

	Project Budget*	Proposed / Approved Contract	Proposed / Authorized Contingency	Total Proposed / Authorized Amount
Project Items				
PHASE I Flood Protection				
Environmental Consultant	\$75,000	\$75,000	\$0	\$75,000
Vegetation Management Contractor	\$170,000	\$152,500	\$15,250	\$167,750
Legal, District Labor, Other	\$5,000	\$5,000	\$0	\$5,000
PHASE II Flood Protection				
Engineering	\$63,000	\$63,000	\$0	\$63,000
Construction Contract	\$182,000	\$369,789	\$36,979	\$406,768
Legal, District Labor, Other	\$5,000	\$5,000	\$0	\$5,000
Totals	\$500,000	\$670,289	\$52,229	\$722,518

*\$152,821.95 has been expended to date.

 Currently Proposed Amount

Attachment: Exhibit A – Location Map



Path: G:\GIS\Projects\Projects_2017\Staff\Report\LD\ Larson\Maps\Plant3A_Wall.mxd

Plant 3A

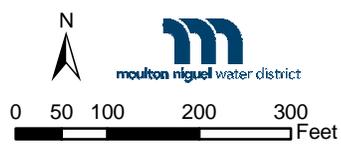
CABOT RD

MERIT CT

CAM CAPISTANO

5

-  Project Location
-  Flood Protection Wall



Scale = 1:2,500

Exhibit "A" Location Map
Plant 3A Flood Protection
Contract No. 2016.016



moulton niguel water district

STAFF REPORT

TO: Board of Directors **MEETING DATE:** September 18, 2017

FROM: Rod Woods, Director of Engineering
David Larsen, Principal Engineer

SUBJECT: Professional Services Agreement for Potable, Recycled, and Sewer Pipeline Replacements at I-5 and Oso Creek

SUMMARY:

Issue: Board action is required to execute a professional services agreement for the Potable, Recycled, and Sewer Pipeline Replacements at I-5 and Oso Creek, Project Nos. 2017.009, 2017.014, and 2017.018.

Recommendation: It is recommended that the Board of Directors approve the Professional Services Agreement with GHD, Inc. in an amount of \$472,033; authorize the General Manager or Assistant General Manager to execute the agreement; and to approve amendments up to 10% of the contract value.

Fiscal Impact: Project Nos. 2017.009 and 2017.014 are budgeted in Fund 7, Rehabilitation and Replacement with a combined current project budget of \$3,000,000. Project No. 2017.018 is budgeted in Fund 14, Planning and Construction with a current project budget of \$2,000,000.

Reviewed by Legal: Yes

BACKGROUND:

The existing 14-inch potable water pipeline that crosses Interstate 5 (I-5) at Oso Creek feeds the District’s 650 Zone on the east side of the freeway. The District has determined that the pipeline requires replacement as visual inspections indicate external corrosion of the pipeline. Additionally, several valves on the east side of I-5 are currently within the limits of the creek and inaccessible.

Additionally, the existing 8-inch and 12-inch recycled water pipelines, which cross I-5 at Oso Creek and feed the District’s 450 Zone, have experienced several failures and

#7.

Professional Services Agreement for Potable, Recycled and Sewer Pipeline Replacements at I-5 and Oso Creek
September 18, 2017
Page 2 of 3

are recommended for replacement in conjunction with the potable water pipeline. These pipelines transport recycled water to Santa Margarita Water District's La Paz Pump Station and, ultimately, the Upper Oso Reservoir.

Due to the environmentally sensitive location of the potable water and recycled water pipelines, trenchless methods are expected to be utilized to replace the pipes under I-5, which minimizes the impacts to the surrounding areas. The engineering services for this professional services agreement includes the design, preparation of CEQA documents, permit acquisition support, construction document preparation and construction phase support for the replacement of the potable water and recycled water pipelines beneath I-5 utilizing trenchless technologies.

Additionally, an existing 12-inch trunk sewer extends under the I-5 freeway in the general vicinity of the other pipelines and has been scheduled for replacement. Based on previous preliminary investigations, it is believed that this trunk sewer may also be undersized for the current demands. There is an economic benefit if these pipeline replacements are included in a singular design contract. However, due to existing site challenges, only an initial design effort has been included in the scope of these engineering services to determine the feasibility of replacing the sewer pipeline using trenchless technologies.

DISCUSSION:

On July 26, 2017, staff issued a Request for Proposals for engineering consulting services to four qualified engineering consulting firms. Four proposals were received and the adjusted base fees are summarized below:

Consultant / Firm	Proposed Base Fee
Dudek	\$358,670
Hazen and Sawyer	\$397,147
GHD, Inc.	\$398,684
Psomas	\$689,112

Staff performed a thorough review of the proposals received to determine the overall best value for the professional services required. Based on the consultants' specific project understanding and approach, overall proposal quality, project specific experience, proposed project team, proposal cost, and anticipated construction cost, staff recommends that GHD, Inc. be awarded the professional services contract.

Additionally, GHD's proposal included an optional task and associated fee of \$73,349 for final design of the trunk sewer replacement under the freeway. The additional task increases the total proposal fee to \$472,033. If the final design of the sewer replacement is determined to be feasible and necessary, this optional task would be

Professional Services Agreement for Potable, Recycled and Sewer Pipeline Replacements at I-5 and Oso Creek
September 18, 2017
Page 3 of 3

authorized by District staff and the final design of the sewer replacement would be included in the construction documents.

SUMMARY OF PROJECT BUDGET:

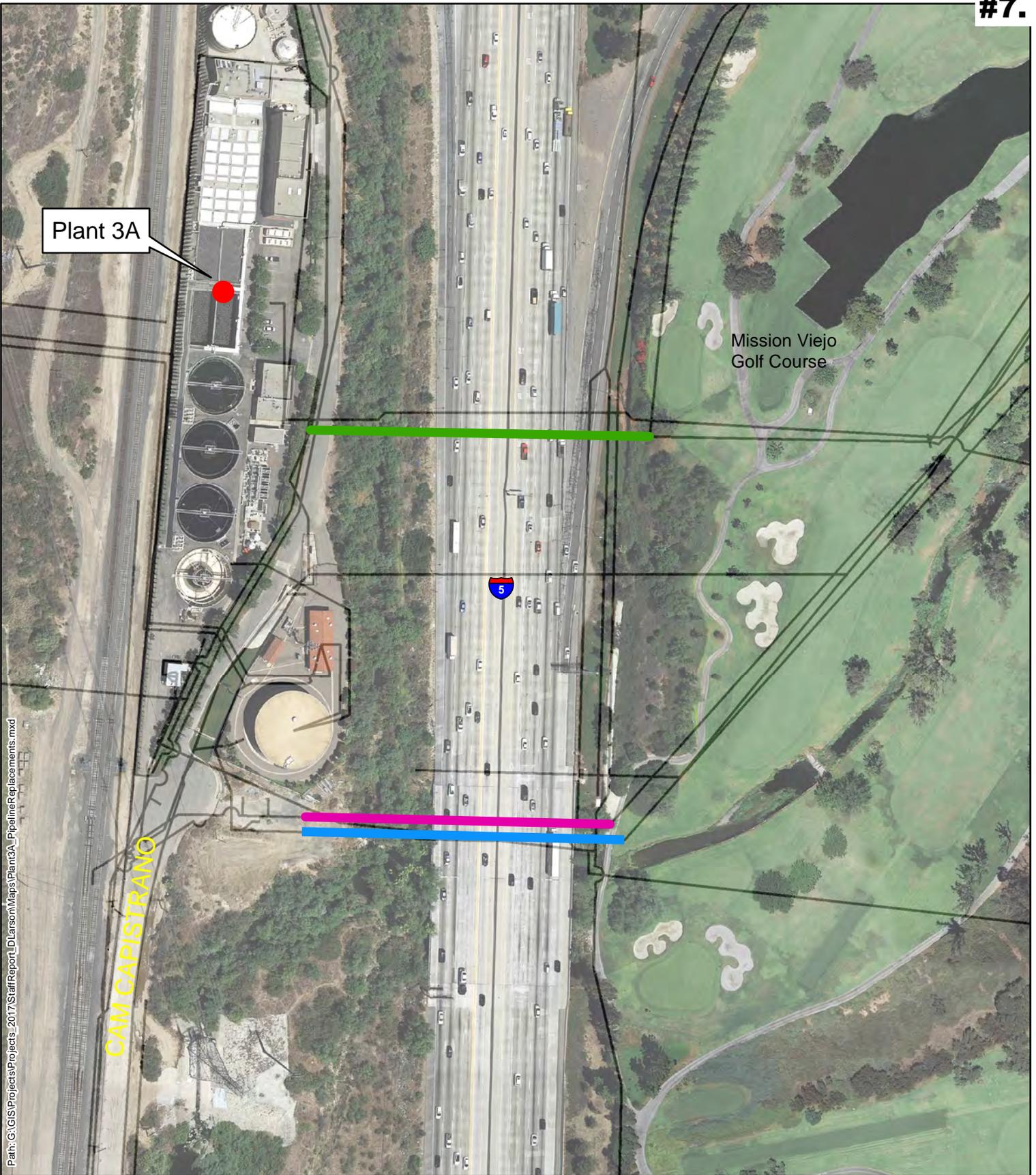
	Project Budget*	Proposed / Approved Contract	Proposed / Authorized Contingency	Total Proposed / Authorized Amount
Project Items				
Engineering	\$550,000	\$472,033	\$47,203	\$519,236
CEQA Compliance	\$200,000	\$200,000	\$0	\$200,000
Construction	\$4,000,000	\$4,000,000	\$0	\$4,000,000
Construction Management, Inspection, Permits, Other	\$250,000	\$280,764	\$0	\$280,764
Totals	\$5,000,000	\$4,952,797	\$47,203	\$5,000,000

*\$0 has been expended to date.

 Currently Proposed Amount

Attachments:

1. Exhibit A – Location Map
2. Exhibit B – Professional Services Agreement



Path: G:\GIS\Projects\Projects_2017\StaffReport\Larson\Maps\Plant3A_PipelineReplacements.mxd

- Plant 3A
- Wastewater Pipeline
- Recycled Pipeline
- Potable Pipeline

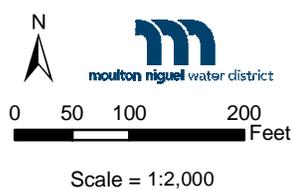


Exhibit "A" Location Map
Potable, Recycled and Sewer Pipeline
Replacements at I-5 and Oso Creek
Project Nos. 2017.009, 2017.014, 2017.018



moulton niguel water district

PROFESSIONAL SERVICES AGREEMENT BETWEEN

MOULTON NIGUEL WATER DISTRICT AND [Click here to enter text.](#)

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 ____ day of _____, 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 _____ 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 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.

#7.

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,

#7.

officials, officers, employees, agents, and volunteers shall be covered as additional 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.

#7.

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

#7.

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

GHD, Inc.

By: _____

By: _____

Joone Lopez
General Manager

Printed Name

Title

Dated

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

EXHIBIT A
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
Scope of Services

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
Scope of Services

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
Scope of Services

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
Scope of Services

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

EXHIBIT A
Scope of Services

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
Scope of Services

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

EXHIBIT A
Scope of Services

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-Corrosion/Geotechnical	CAD Designer	Project Assistant	GHD Hours	Subconsultant Hours	GHD Labor Costs	Subconsultants Including Markup	Other Direct Costs	Total
Hourly Rates	\$210	\$225	\$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	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 Mylar 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	0%	48	42	12	80	36	132	12	430	-	\$ 66,722	\$ -	\$ 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%	0%	60%	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	\$ -	\$ 90	\$ 2,740
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	99	-	-	-	15	2	26	-	\$ 3,790	\$ -	\$ 156	\$ 3,946
Subtotal – Task 9 – Bid & Construction Phase Support Services	1	0%	68	0%	0%	38	99	0%	0%	0%	31	2	239	-	\$ 41,830	\$ -	\$ 1,974	\$ 43,804
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 Easement 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	-	\$ 24,688	\$ -	\$ 924	\$ 25,612
Task 10.6 Additional Construction Cost Estimate for Final Design	-	-	-	-	-	-	-	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%	55	8	2%	36	96	10	44	12	96	24	393	-	\$ 62,040	\$ 5,750	\$ 5,559	\$ 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	-	25	23	-	50	-	-	3	101	-	\$ 17,460	\$ -	\$ 606	\$ 18,066
Task OPT-1 - Geotechnical Baseline Report	-	-	4	49	-	25	23	8	50	-	20	5	184	-	\$ 31,600	\$ -	\$ 1,584	\$ 33,184
Subtotal – OPTIONAL SERVICES (NOT INCLUDED IN TOTAL FEE)	32	2%	5	325	26	22	174	347	32	198	94	87	1,711	884	\$ 274,822	\$ 176,035	\$ 21,176	\$ 472,033
Total (Not-to-Exceed)	32	2%	5	325	26	22	174	347	32	198	94	87	1,711	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 FEESConsulting 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 ½ % 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 # M82217-PH13
 Expiration Date: November 20, 2017

Project Name: MNWD Pipeline Replacement at 1-5 FWY & Oso Creek		Sales Person: Mike Arme		
Item #	Qty	Description	Unit Price	Line Total
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.



moulton niguel water district

STAFF REPORT

TO: Board of Directors **MEETING DATE:** September 18, 2017

FROM: Rod Woods, Director of Engineering
Mark Mountford, Principal Engineer

SUBJECT: Professional Services Agreement for the Recycled Water Optimization Study

SUMMARY:

Issue: Board action is required to execute the Professional Services Agreement for the Recycled Water Optimization Study.

Recommendation: It is recommended that the Board of Directors approve the Professional Services Agreement for engineering services with AKM Consulting Engineers in the amount of \$192,726; authorize the General Manager or Assistant General Manager to execute the Agreement; and to approve amendments up to 10% of the contract value.

Fiscal Impact: Sufficient funds are included in the FY17-18 operating budget to support the project.

Reviewed by Legal: Yes

BACKGROUND:

During the development of the Long Range Water Reliability Plan, the District identified recycled water as the most cost-effective potential alternative water supply source to improve system reliability for the District’s customers. The District moved to optimize this water source through a comprehensive planning effort. The first step of this planning effort concluded in June 2017, with the delivery of the Recycled Water Master Plan (RWMP). The RWMP included assessment of existing and future recycled water users, assessment of recycled water supply, evaluation of existing system hydraulics, determination of storage requirements, and development of a capital improvement plan. The RWMP included scenarios involving development of new supply, construction of new storage, and interconnections with our neighboring

#8.

Professional Services Agreement for the Recycled Water Optimization Study

September 18, 2017

Page 2 of 2

agencies (Santa Margarita Water District and El Toro Water District). The RWMP identified 1,700 acre-feet of conversion opportunities requiring additional facility improvements. The analysis determined it was not cost-effective for the District to convert all 1,700 acre-feet of potable water irrigation users that were identified in the RWMP. Moreover, the analysis determined it was not necessary to acquire additional recycled water seasonal storage at Trampas Reservoir.

The next step in the planning process is to determine the potable water irrigation users that can cost-effectively be converted to recycled water. The analysis will determine how to optimize the recycled water program expansion with available supply, while considering cost-effective infrastructure improvements or additions. At the conclusion of this effort, the District will receive a comprehensive and specific plan to most cost-effectively deliver the current remaining supply of recycled water or increase available recycled water production.

DISCUSSION:

Staff issued a Request for Proposal to AKM Consulting Engineers for comprehensive engineering services to develop a Recycled Water Optimization Study. District Staff has pursued a single-sourcing of this study, as AKM Consulting Engineers prepared the 2017 Recycled Water Master Plan and built the recycled water hydraulic model. This optimization study is a refinement of the initial RWMP planning effort. AKM Consulting Engineers' knowledge and experience with the District's system make them uniquely positioned to be the most accurate and efficient in providing meaningful and actionable results based on their acquired knowledge of the recycled water system and its customers.

The proposal was evaluated based on the project understanding, the developed scope of work, the anticipated level of effort, and the project schedule. The proposal identified all the necessary requirements to create a report that provides an actionable list of conversion targets and potential cost-effective connections throughout the various pressure zones of the District. Lastly, the Recycled Water Optimization Study will support a new application for the Metropolitan Water District's Local Resources program.

Attachment: Professional Services Agreement

**PROFESSIONAL SERVICES AGREEMENT
BETWEEN
MOULTON NIGUEL WATER DISTRICT AND
AKM CONSULTING ENGINEERS
MNWD PROJECT: RECYCLED WATER EXPANSION OPTIMIZATION STUDY
CONTRACT NO. OM17-18.033**

This Agreement (the "Agreement") is made and entered into this _____ day of _____, 2017 by and between the Moulton Niguel WATER DISTRICT ("MNWD") and AKM Consulting Engineers, with its principal place of business at 553 Wald, 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 the evaluation and analysis of the recycled water system for the Recycled Water Expansion Optimization Study (the "Project") in a competent and professional manner.

SECTION II – TERM.

The term of this Agreement shall be from date of signature to April 30, 2018, 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 One Hundred Ninety Two Thousand Seven Hundred Twenty Six Dollars (\$192,726) 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 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 Mr. Zeki Kayiran, P.E., 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: Zeki Kayiran, Principal; Diann Pay, Project Manager; Jon Nitta, Project Engineer; Haly Herrera, Associate Engineer, Nick Lowe, Field Engineer. 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 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

#8.

(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:

MNWD:

Moulton Niguel Water District
27500 La Paz Road
Laguna Niguel, CA 92677-3489
Attn: Rod Woods, Director of
Engineering

CONSULTANT:

AKM Consulting Engineers
553 Wald
Irvine, CA 92618
Attn: Zeki Kayiran, P.E.

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 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.

#8.

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

AKM CONSULTING ENGINEERS:

By: _____

By: _____

Printed Name: _____

Printed Name: _____

Title: _____

Title: _____

Dated: _____

Dated: _____

EXHIBIT A
SCOPE OF SERVICES



AKM Consulting Engineers

553 Wald

Irvine, CA 92618

Telephone: 949.753.7333 Facsimile: 949.753.7320

www.akmce.com

Water Resources

Infrastructure

Construction Management

August 23, 2017

Moulton Niguel Water District

26161 Gordon Road

Laguna Hills, CA 92653

Attn: Mr. Rodney Woods

Subject: Proposal for Professional Engineering Services for the Recycled Water Expansion Optimization Study

Dear Mr. Woods:

Pursuant to your request, AKM Consulting Engineers has prepared this Proposal to provide professional engineering services for the Recycled Water Expansion Optimization Study. Our understanding of the work, scope, fee, and schedule are presented below.

Project Understanding

Background

Moulton Niguel Water District (MNWD) completed a Recycled Water Master Plan (RWMP) in June 2017. This study included a recycled water market and demand assessment, seasonal storage analysis, the development and calibration of a hydraulic model, facility assessments, and estimated capital costs. The RWMP study identified 465 potable irrigation meters and 1,695 AFY demand that could feasibly be converted to the recycled water system (based on costs of conversions only). Seasonal storage was found to be currently sufficient for the addition of 500 AFY additional demand and up to 1,300 AFY additional demand with increase in recycled water production at the 3A Treatment Plant. Additional seasonal storage would be needed if the total 1,695 AFY demand identified for conversion were to be considered.

Due to the high estimated improvement costs, MNWD ultimately decided not to pursue the conversion of the full 1,695 AFY and purchase of additional seasonal storage. The next step in the planning process is to determine which customers can be converted to recycled water without triggering the need for additional seasonal storage (MNWD currently owns 1000 AF in Oso Reservoir) and limiting the capital improvement projects that would be needed in the existing system. This step will be performed considering both 1) existing conditions and 2) an increase in recycled water production at the 3A Treatment Plant.

The goals of the recycled water expansion optimization study are as follows:

1. Define a system-wide cost effective recycled water project that incorporates an optimal number of customer conversions without requiring additional seasonal storage (with and without an increase in recycled water production at the 3A Treatment Plant).

2. Identify the “optimal” potable irrigation users that should be targeted to convert to the recycled water system and prioritize the conversion costs (\$/AF). The conversion costs should also include any improvement project costs caused by the addition of the customer demand.
3. Re-evaluate the feasibility and benefit of diverting additional sewage flow to the 3ATP from the Camino Capistrano Lift Station.
4. Use the calibrated hydraulic model to ensure that the recommended project will meet the established operating criteria (i.e. minimum service pressures, minimum reservoir levels, low velocities).

Scope of Work

AKM’s scope of work is described as follows:

Task 1 Meetings

- 1.1 Kickoff Meeting
- 1.2 Progress Meetings
- 1.3 Attend Board Meeting

Task 2 Define Flows and Use Pattern through Via Noveno Connection

- 2.1 Install flow monitoring equipment at Via Noveno connection with SMWD to develop a more accurate diurnal curve for the Zone 870_R1. This was not done during the development of the recycled water master plan. A general system wide diurnal curve was applied to the customer demands in Zone 870_R1.

Task 3 Re-evaluate Future Conversion Costs

- 3.1 Re-evaluate future conversion costs considering pumping costs when the customer is located in a zone requiring one or more lifts.
- 3.2 Re-evaluate costs of improvement projects caused by future conversions on an area by area basis. For example, if certain conversions trigger certain existing system improvements, we will add the cost of the improvements into the conversion cost calculation (\$/AF). If the conversion cost calculation is too high, then those demands will be considered for elimination from the conversion list.
- 3.3 Identify demand thresholds for certain areas of the system that will “trigger” improvement projects. Refine the conversion projects with the ultimate goal of trying to minimize the existing system improvements. This will require an iterative process in selecting conversion projects. Conversion projects with the lowest conversion cost will always be given priority.
- 3.4 Summarize results of future conversion cost analysis into a prioritization matrix. Develop project lists for each area in order of least to most expensive cost (\$/AF) so if existing supply is used up by future developments, it is clear which projects should be dropped.

Task 4 Re-evaluate Feasibility of Latham Diversion to 3A

- 4.1 Re-evaluate the feasibility and benefit of diverting sewage flows from the vicinity of the existing Camino Capistrano Lift Station to the 3A Treatment Plant. Cost considerations will include:
 - a. Diversion structure on existing 39-inch diameter sewer in Camino Capistrano
 - b. 24-inch diameter steel casing jacked and bored under the Metrolink Railroad and Oso Creek
 - c. New submersible pump stations with a firm capacity of 1200 gpm
 - d. About 13,350 feet of 12-inch diameter forcemain
 - e. Additional maintenance cost of new sewage pump station

Due to the uncertainty at this time on what will happen at 3ATP in terms of improvements made by Santa Margarita Water District and/or MNWD, the costs of improvements at 3ATP will be left out of the evaluation.

Task 5 Hydraulic Analysis

- 5.1 Determine limitations of pump stations in the westerly portion of the system, particularly Alicia Booster Pump Station, Aliso Viejo Booster Pump Station, and Southridge Booster Pump Station.
- 5.2 Verify with MNWD that all operations set in model are reasonable, such as minimum reservoir levels and limitations on potable makeup water at each site.
- 5.3 Make sure that water levels are sustained in the westerly reservoirs (Mouton Peak Reservoir, Southridge Reservoir, and Aliso Viejo Reservoir) based on the results of Task 5.1 and 5.2. Determine which conversions are most feasible in the westerly portion of the system considering the reservoir water levels and the cost of potable makeup water.
- 5.4 Modeling Scenarios

The modeling scenarios will be an iterative process in order to determine which conversion projects are the most feasible for each scenario and still ensures that the system works hydraulically. Work completed in Task 3 will be utilized in selecting conversions for each scenario.

- a. Baseline Scenario (Existing System, Existing Demands – Draw Scenario)

This scenario will be rerun to establish the baseline results for the study. It was previously set up during the Recycled Water Master Plan Study.

- Existing system conditions (existing pipes and sizes of pipes)
- The 8" and 12" bottleneck between 3ATP and La Paz Pump Station
- Existing system demands

- b. Existing System, Interim Demands – Draw Scenario

This scenario will act as an interim scenario. It will answer the question of which users can be converted to the recycled water system prior to improving the bottleneck between 3ATP and the La Paz Pump Station.

- Existing system conditions (existing pipes and sizes of pipes)
- The 8" and 12" bottleneck between 3ATP and La Paz Pump Station
- Existing system demands plus a limited amount of conversions (to be determined)

c. Future System, Future Demands – Draw Scenario

This scenario will act as the final scenario. It will answer the question of which users can be converted to the recycled water system after the improvement of the bottleneck between 3ATP and the La Paz Pump Station is ultimately completed.

- Existing system with limited improvements
- Proposed 24" pipe between 3ATP and La Paz Pump Station
- Existing system demands plus conversions (to be determined)

d. Future System, Future Demands with JB Latham Diversion – Draw Scenario

This scenario will act as the final scenario with the JB Latham diversion. It will answer the question of which users can be converted to the recycled water system after the improvement of the bottleneck between 3ATP and the La Paz Pump Station is ultimately completed and with the JB Latham diversion. Possibly, more users can be converted with more supply at 3ATP.

- Existing system with limited improvements
- Proposed 24" pipe between 3ATP and La Paz Pump Station
- Existing system demands plus conversions (to be determined)
- Additional supply at 3ATP due to JB Latham diversion

e. Future Scenarios – OPTIONAL

Up to four (4) future scenarios will be run at the discretion of the MNWD staff. These scenarios may include changes to the supply at the 3ATP or consideration of projects that SMWD will be moving forward with in the near future.

Assumptions for scenarios:

1. Any future improvements at 3ATP due to SMWD will not be considered. For SMWD to increase their capacity, new facilities will be needed upstream of the pump station.
2. Treating the Laguna Beach sewage flows at JRTP is not going to be an alternative.
3. El Toro Water District will not be included in the study.
4. No additional seasonal storage will be needed for the system ultimately recommended. Only the existing 1000 AF of seasonal storage in Upper Oso Reservoir will be needed to run the ultimate system.
5. The current upgrades MNWD is making at Valencia Sewer Lift Station are considered just for operational flexibility. MNWD does not plan to permanently divert sewage flow away from 3ATP to Regional TP, which would affect the recycled water supply.
6. Estimated future sewage generation will be based on the assumption that there is an additional 5 gpcd reduction in flows to the treatment plants. Future available recycled water will in turn be based on this assumption as well.

Task 6 Capital Improvement Program

- 6.1 Develop Capital Improvement Program for recommended system based on hydraulic analysis. The ultimate goal of this project is to clearly define a cost effective recycled water expansion project and provide a basis for applying for grant money to assist with funding the project itself.

Task 7 Optimization Study Report and Model Technical Memorandum

The Optimization Study Report will summarize the work effort for this project. It will generally describe the process followed to develop the optimal future demands and system improvements for each scenario. Cost estimates will be provided and conversion projects will be prioritized.

The Model Technical Memorandum will provide details of each modeled scenario. The memorandum will be written in such a way that it can be added as a section to the existing Hydraulic Model Manual developed for the Recycled Water Master Plan. The revised hydraulic modeling files with all new scenarios will be delivered with the memorandum.

- 7.1 Draft Report and Technical Memorandum
- 7.2 Revised Report and Technical Memorandum
- 7.3 Final Report and Technical Memorandum

Task 8 Optimizing Demand Management - OPTIONAL

- 8.1 This task will involve work used to develop recommendations for optimizing customer demand management. This may include recommendations to irrigation schedules in terms of days of the week or hours of the day. This task will be discussed with MNWD staff after the completion of Task 5.4.

We will analyze the selected “recycled water project” scenario (i.e. Scenario from Task 5.3.c or Task 5.3.d) with changes to the demand patterns of select customers. It is expected that patterns will be changed for meters providing irrigation to slopes, and/or golf course ponds. Based on historical data, irrigation currently occurs from 9 pm to 5 am. However, MNWD Recycled Water Rules & Regulations will allow for slopes and groundcover/shrub areas to irrigate any hour, so long as there is no potential for public contact (turf areas, medians, and parks must irrigate between 6 pm and 6 am and golf course impoundments must fill between 4 am and 6 pm per the Rules & Regulations. In order to optimize water use in the system, it would be beneficial if this irrigation occurred in the daytime hours from 6 am to 6 pm. This would lower the peak demands and put less stress on the system.

It is assumed that MNWD staff would be able to identify the recycled water customers and potential potable water conversion customers that can safely irrigate during daytime hours. Once the customers are identified, we will change the demand patterns and rerun the hydraulic model to determine the effects the demand management measures could have on the system and the recommended improvements.

Fee Estimate

To complete the scope of services described above, we estimate a budget of \$192,726 will be required if all optional tasks are included. The cost is estimated at \$135,986 without the optional tasks. A detailed estimate by task, including associated workhours, is shown in Table 1.

AKM will not exceed the established budget or proceed with optional tasks without prior written authorization by the Moulton Niguel Water District.

Schedule

AKM's proposed project schedule is illustrated below. It has been prepared to properly address the requirements of the scope of work. AKM Consulting Engineers has the resources to accomplish the anticipated work within the schedule shown. The optional items are NOT included in the schedule below.

Kick-off Meeting	September 2017
Draft Report	February 2018
Final Draft Report	March 2018
Final Report	April 2018

We appreciate the opportunity to submit our proposal to MNWD. If you should have any questions, please feel free to call.

Sincerely,

AKM Consulting Engineers



Diann Pay, P.E.
Principal Engineer

#8.

**EXHIBIT B
FEE SCHEDULE**

EXHIBIT B

**Table 1
Staff Hour & Fee Estimate**

Moulton Niguel Water District Recycled Water Expansion Optimization Study August 30, 2017										
Task	Principal	Project Manager	Project Engineer	Associate Engineer	Field Engineer	Office Support	Total Hours	Labor Cost	Expenses	Total Cost
Task 1 - Meetings										
1.1 Kickoff Meeting	2	2	2				6	\$1,170	\$100	\$1,270
1.2 Progress Meetings	4	8	8				20	\$3,860	\$100	\$3,960
1.3 Board Meeting	2	2	2				6	\$1,170	\$100	\$1,270
Task 2 - Define Base Model										
2.1 Install flow monitoring equipment at Via Noveno and develop diurnal curve for Zone 870_R1			4	4	8		16	\$2,360	\$600	\$2,960
Task 3 - Re-evaluate Future Conversion Costs										
3.1 Re-evaluate future conversion costs considering pumping costs	2	2	8	16			28	\$4,440		\$4,440
3.2 Re-evaluate costs of improvement projects caused by future conversions on area by area basis		2	8	16			26	\$4,030		\$4,030
3.3 Identify demand thresholds for certain areas that will "trigger" improvement projects		4	12	24			40	\$6,240		\$6,240
3.4 Summarize future conversion cost analysis into prioritization matrix		4	8	16			28	\$4,420		\$4,420
Task 4 - Re-evaluate Feasibility of Latham Diversion to 3A										
4.1 Re-evaluate feasibility of diverting sewage to 3ATP	4	8	16				28	\$5,340		\$5,340
Task 5 - Hydraulic Analysis										
5.1 Determine limitations of pump stations in westerly portion of system		2	4	16			22	\$3,290		\$3,290
5.2 Verify operations set in model are reasonable		2	4	8			14	\$2,210		\$2,210
5.3 Modeling Scenarios										
a. Baseline (Existing System, Existing Demands - Draw Scenario)			4	4			8	\$1,280		\$1,280
b. Existing System, Interim Demands - Draw Scenario		8	24	60			92	\$14,100		\$14,100
c. Future System, Future Demands - Draw Scenario		8	24	60			92	\$14,100		\$14,100
d. Future System, Future Demands with JB Latham Diversion- Draw Scenario		8	24	60			92	\$14,100		\$14,100
e1. Future Scenario (Optional)		8	20	40			68	\$10,660		\$10,660
e2. Future Scenario (Optional)		8	20	40			68	\$10,660		\$10,660
e3. Future Scenario (Optional)		8	20	40			68	\$10,660		\$10,660
e4. Future Scenario (Optional)		8	20	40			68	\$10,660		\$10,660
Task 6 - Capital Improvement Program										
6.1 Develop Capital Improvement Program	8	16	24	24			72	\$12,440		\$12,440
Task 7 - Optimization Study Report & Model Technical Memorandum										
7.1 Draft Report & TM	8	32	56	32			128	\$22,560		\$22,560
7.1 Revised Report & TM	4	16	24	12			56	\$10,000		\$10,000
7.2 Final Report & TM	4	8	16	8		16	52	\$7,476	\$500	\$7,976
Task 8 - Optimizing Demand Management (Optional)										
8.1 Run hydraulic model with optimal irrigation schedules		8	24	60			92	\$14,100		\$14,100
Total Hours	38	172	376	580	8	16	1190			
Rate (\$/Hr)	\$205	\$195	\$185	\$135	\$135	\$66				
Total Cost with All Optional Tasks	\$7,790	\$33,540	\$69,560	\$78,300	\$1,080	\$1,056		\$191,326	\$1,400	\$192,726
Total Cost without Optional Tasks	\$7,790	\$25,740	\$50,320	\$48,600	\$1,080	\$1,056		\$134,586	\$1,400	\$135,986

