PROFESSIONAL SERVICES AGREEMENT
FOR
CITY OF PFLUGERVILLE WATER TREATMENT PLANT ENGINEERING SERVICES

WORK AUTHORIZATION NO. 2019-1

This WORK AUTHORIZATION is made pursuant to the terms and conditions of the Professional Services Agreement executed the 20th day of January, 2015 by and between the City of Pflugerville and DCS Engineering, LLC., hereinafter referred to as the Agreement.

The Consultant will perform the professional services as shown in Attachment A, Scope of Services, which will include the tasks to be performed, the deliverables to be provided by the Consultant, and the milestone schedule for completing the tasks and the deliverables.

Compensation to the Consultant for the services provided pursuant to this work authorization shall be in accordance with Article 4 of the Professional Services Agreement, as further detailed in Attachment B to this Work Authorization. Attachment B shall include the method and basis for determining the compensation for this work authorization. The maximum amount payable under this Work Authorization is $77,760.00 unless amended by a Supplemental Work Authorization.

This Work Authorization does not waive any of the parties' responsibilities and obligations provided under the Professional Services Agreement.

This Work Authorization is hereby accepted, acknowledged, and is effective when fully executed below.

CITY OF PFLUGERVILLE

BY: _____
City Manager

DATE: _____

CONSULTANT
DCS Engineering, LLC

BY: _____

TITLE: Principal

DATE: 6/3/19

City of Pflugerville Water Treatment Plant Engineering Services
Work Authorization No. 2019-1
Zebra Mussel Chemical Control System
Attachment A

In accordance with the Professional Services Agreement for Water Treatment Plant Engineering Services between City and Engineer ("Agreement"), City and Engineer agree that additional work shall be added to the Professional Services Agreement for Water Treatment Plant Engineering Services dated January 20, 2015 as follows:

1. **Specific Project Data**
   A. Title: City of Pflugerville – Zebra Mussel Chemical Control System
   B. DCS Project No.: 20101405
   C. Background and Description:
   In 2017, zebra mussels were detected in Lake Travis and the Highland Lakes. In September 2018, routine cleaning and inspection by divers at the City's Colorado River Intake Pumping Station (downstream of Austin) found significant growth of zebra mussels inside the facility. Based on the size of the mussels, their presence at the Colorado River Intake Pumping Station has been about one year. In January 2019, inspection by divers found intermittent zebra mussel growth on the inside of the Lake Intake Tower at Lake Pflugerville and significant growth of zebra mussels inside the 48-inch pipe spanning to the Lake Pumping Station, which feeds water from Lake Pflugerville to the Water Treatment Plant.

   DCS and City Staff met on September 19, 2018 to discuss zebra mussel background information and to develop an outline for the proposed plan to combat the pending infestation of the City's water supply facilities and/or Lake Pflugerville. Three phases of the control strategy were identified from that meeting as outlined below. We have completed Phase I of the control strategy. Through our assessment and evaluation, the most effective and common method to combat zebra mussels in the City's raw water infrastructure is by implementing a 20% sodium permanganate dosing system at the City's Colorado River Intake Pumping Station and Lake Pflugerville Intake Tower to the Lake Pflugerville Intake Pumping Station. DCS met with the City Council and Mayor on March 12, 2019, and shortly after, the City requested a proposal to move forward with Phase II and III, as described below.

   DCS has moved forward with Phase II and performed a preliminary design for the permanent chemical systems with buildings sized for the 20.5 mgd firm Water Treatment Plant capacity so that we could clearly define the engineer's opinion of most probable construction cost and to quantify the scope of work for this proposal. The engineer's opinion of most probable construction cost totals $526,000 for the two chemical systems with CMU buildings and appurtenances. This cost includes 15% contingency.

   1. **Phase I - Assessment and Evaluation:**
      This phase includes the preliminary investigative steps to determine the extent of the zebra mussel infestation, desk top studies for control options, immediate control methods to implement, and associated field assessments. This phase was completed in previous work efforts.
   2. **Phase II - Preliminary Engineering:**
      This phase includes the development of a conceptual design, capital improvement project costs, annual O&M costs, and associated analysis of the potential options to implement at each of the City's public infrastructure and amenity facilities to be impacted by the zebra mussels. Tasks will also include pros/cons, and implementation schedules. This scope of work is included in this proposal.
   3. **Phase III – Final Design, Bidding, and Construction:**
      This phase includes the development of plans and specifications for project(s) to address the options selected in Phase II to protect each component of the City's infrastructure; protect each component of Lake Pflugerville as a public amenity; and operational strategies/standard operating procedures. Tasks are anticipated to include final design, bidding, and construction phase services. This scope of work is included in this proposal.

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2. **Phase II - Preliminary Engineering:**
This phase includes the development of conceptual designs, capital improvement project costs, annual O&M costs, and associated analysis of the potential options to implement at each of the City's public infrastructure and amenity facilities to be impacted by the zebra mussels. Tasks will also include pros/cons, and implementation schedules.
   1. The analysis will include work needed to evaluate the sizing, location, and injection points of the chemicals and associated CMU building for the lifetime of the project. Storage tank volumes will be sized to accommodate bulk delivery to reduce O&M costs versus the use of chemical totes.
   2. Coordinate with updated FEMA floodplain maps so that proposed facilities are above the 100-year floodplain.
   3. Coordinate with record drawings of previous infrastructure projects.
   4. Identify the regulatory agencies for which permitting of construction activities will be required. Coordinate with these agencies to brief them on the particulars associated with this Project and gather permitting information which will be useful in ordinance compliance and final design. This effort only includes preliminary coordination and specifically excludes preparation of applications to agencies including, but not limited to, Travis County, TCEQ, and private utilities (gas, electric, telephone, cable) for work coordinated with their facilities.
   5. Utilize the criteria set forth in City Design Standards and compliant with the TCEQ's Chapter 290 for design of the facilities including the TCEQ Zebra Mussel Guidelines published in January 2019.
   6. Identify potential challenges and recommendations for the implementation of the Project with respect to the existing facilities will be identified.
   7. For each of the facilities to be evaluated under this project, prepare and submit conceptual layouts clearly illustrating the facilities proposed, site locations and layouts contemplated including project schedules, recommended alternatives, and an Engineer's Opinion of Probable Cost for each facility. Upon inclusion of comments from City staff, DCS shall complete the preliminary engineering and proceed with the final design.

3. **Phase III – Final Design, Bidding, and Construction:**
   A. Final Design Phase
      1. Conduct project kick off meeting with City Staff to review critical aspects of the project and previously identified construction items.
      2. Provide monthly project status updates with Owner during the design, bidding, and construction administration phases of the project.
      3. Advise the Owner, of any soil and foundation investigations or any special testing which, in the opinion of the Engineer, may be required for the proper execution of the Project. The geotechnical reports from the construction of the Colorado Intake Pumping Station and Lake Pumping Station shall be used in this design.
      4. Conduct a 30% and 90% design review meeting with City and Operator.
      5. Update the engineer's opinion of most probable cost of construction and advise the Owner of any changes to this cost at 90% plan and 100% plan completion.
      6. Furnish to the Owner, where required by the circumstances of the assignment, the engineering and/or survey data necessary for applications for routine permits by local, state and federal authorities (as distinguished from detailed applications and supporting documents for government grants-in-aid, state loan programs, planning advances or to meet the requirements of the special programs of the federal government). The Engineer shall also assist the Owner in obtaining approval of the aforementioned routine permit applications from local, state, and federal authorities.
      7. Perform field surveys to collect information, which in the opinion of the Engineer, is required in the design of the project. Access to the project site shall be provided.
      8. A topographic survey will not be performed as part of this work. The site plans will be drawn per record drawings with dimensions from existing surface features to locate the proposed buildings planned to be adjacent to the existing buildings.

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9. Prepare specifications and contract drawings, for construction authorized by the Owner and submit to the applicable local and state agencies for approval. Design elements shall include electrical, architectural, structural, process, mechanical and civil.
10. Specifications will be prepared in conformance with the sixteen-division format of the Construction Specification Institute and will be based upon Engineer's master specifications. The General Conditions and other Contract Documents will be the City's standard documents.
11. Prepare for review and approval by Owner, its legal counsel and other advisors, contract agreement forms, general and supplementary conditions of the construction contract, proposal form, invitation to bid and instructions to bidders.
12. Evaluations of the Owner's Project budget, preliminary estimates of Construction Cost and detailed estimates of Construction Cost, if any, prepared by Engineer, represent Engineer's judgment as a design professional familiar with the construction industry. It is recognized, however, that neither Engineer nor the Owner has control over the cost of labor, materials or equipment; over the Contractor's methods of determining bid prices; or over competitive bidding, market or negotiating conditions. Accordingly, Engineer cannot and does not warrant or represent that bids or negotiated prices will not vary from the Owner's Project budget or from any estimate of Construction Cost or evaluation prepared or agreed to by Engineer.
13. Furnish the Owner all necessary copies of review sets and final approved plans, specifications, notices to bidders, and proposals. Furnish four sets of half sized prints signed and approved drawings to the Owner.
14. Submit summary letter to TCEQ including engineering report for proposed facilities including obtaining approval for dosage sodium permanganate at Lake Pflugerville Intake Tower.

B. Bidding Phase
1. Assist Owner in advertising for and obtaining proposals or negotiating proposals for the prime contract for construction materials, equipment and services to be performed by a contractor for the project (hereinafter called "Work"); and, where applicable, maintain a record of prospective bidders to whom Contract Documents have been issued, attend pre-bid conference. Civcast shall be utilized for electronically posting the bid documents. Contractors shall be responsible for the cost to print the plans and specifications utilizing their printing company.
2. Civcast will be utilized to maintain the plan holder and distribution lists. Civcast will provide bid packages to the Contractors at no cost. DCS will provide PDF copies of the plans and specification book to Civcast for their use.
3. Newspaper advertisements, if required, shall be paid by the Owner directly to the newspaper for bidding process.
4. Issue addenda as appropriate to interpret, clarify or expand the Contract Documents.
5. Consult with Owner to determine the acceptability of substitute materials and equipment proposed by potential contractor(s) when substitution prior to the award of contracts is allowed by the Contract Documents.
6. Attend and conduct the bid opening and prepare bid tabulation sheets. Evaluate bids or proposals; prepare bid tabulation sheets and letter recommending award of contract to the lowest and most qualified bidder and in assembling and awarding contracts for construction materials, equipment and services.
7. The bid documents will be structured to have one bid for the Project.

C. Construction Administration and Management Phase
1. Consult with and advise Owner as set forth herein and as provided in the General Conditions and Supplementary General Conditions of the Contract for Construction included in the Contract Documents for the project. The extent and limitations of the duties and responsibilities of Engineer as assigned in said Contract Documents shall not be modified, except as Engineer may otherwise agree in writing. Owner shall issue all instructions to the contractor performing the Work (hereinafter called "Contractor") except as otherwise provided in writing.

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2. Coordinate and oversee the participation in a Pre-construction conference for the Project to be held at the beginning of construction at the City Engineer's office.
3. Make periodic on-site visits (one per month) to observe the progress and quality of the executed work and to determine in general if the work is proceeding in accordance with the Contract Documents. In performing this service, the Engineer will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the work or material; he will not be responsible for the techniques and sequences of construction or the safety precautions incident thereto, and he will not be responsible or liable in any degree for the contractors' failure to perform the construction work in accordance with the Contract Documents. During visits to the construction site, and on the basis of the Engineer's on-site observations as an experienced and qualified design professional, he will keep the Owner informed of the extent of the progress of the work, and advise the Owner of material and substantial defects and deficiencies in the work of contractors which are discovered by the Engineer or otherwise brought to the Engineer's attention in the course of construction, and may, on behalf of the Owner, exercise whatever rights the Owner may have to disapprove work and materials as failing to conform to the Contract Documents.
4. Make recommendations to Owner concerning the disapproval or rejection of Contractors' Work while it is in progress if Engineer believes that such Work will not produce a completed project that conforms generally to the Contract Documents or that it will prejudice the integrity of the design concept of the project as reflected in the Contract Documents. Engineer shall have access to the Work at all times wherever it is in preparation or progress.
5. Consult and advise with the Owner; issue all instructions to the contractor requested by the Owner; and prepare routine change orders as required.
6. Evaluate and determine the acceptability of substitute materials and equipment proposed by Contractor.
7. Make recommendations to Owner regarding the advisability of requiring special inspections or testing of the Work and have Owner, for the purposes of this paragraph, receive and review all certificates of inspections, testing and approvals required by laws, rules, regulations, ordinances, codes, orders or the Contract Documents to determine generally that their content complies with the requirements of, and the results certified indicate compliance with, the Contract Documents.
8. Act as initial interpreter of the requirements of the Contract Documents, judge the acceptability of the Work and make decisions on all claims of Owner and Contractor relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the Work. Engineer shall not be liable for the results of any such interpretations or decisions rendered in good faith.
9. Review samples, catalog data, schedules, shop drawings, laboratory, shop and mill tests of materials and equipment and other data which the contractor is required to submit, only for conformance with the design concept of the Project and compliance with the information given by the Contract Documents; and assemble written guarantees which are required by the Contract Documents.
10. Determine the amount owing to Contractor based on Engineer's observations at the site and the data comprising the Application for Payment, and recommend in writing payments to Contractor in such amounts. Such recommendations of payment will constitute a representation to Owner that the Work has progressed to the point indicated and that, to the best of Engineer's knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections of others, to minor deviations from the Contract Documents correctable prior to completion and to specific qualifications expressed by Engineer. The issuance of a recommendation will further constitute a representation that the Contractor is entitled to payment in the amount certified. However, the issuance of a recommendation for payment will not be a representation that the Engineer has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences or procedures; (3) reviewed copies of

requisitions received from Subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Price.

11. Receive and review maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection and tests and approvals of equipment, which are to be provided by Contractor in accordance with the Contract Documents. Determine that their content complies with the requirements of the Contract Documents and transmit them to Owner with written comments.
12. Conduct, in company with the Owner, a preliminary and a final inspection of the Project for assessing conformance with the design concept and compliance with the Contract Documents, determining the substantial completion date for the Project, and recommending final payment to the contractor in writing.
13. Revise contract drawings, with the assistance of the Owner's representative, to provide record drawings of the completed Project. Furnish one set of full size paper drawings, and one PDF of drawings on CD ROM of the record drawings to the Owner. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the party delivering the electronic files. Engineer shall not be responsible to maintain documents stored in electronic media format after acceptance by the Owner. When transferring documents in electronic media format, Engineer makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by Engineer at the beginning of this Project. The Owner may make and retain copies of Documents for information and reference in connection with use on the Project by the Owner. Such Documents are not intended or represented to be suitable for reuse by the Owner or others on extensions of the Project or on any other project. Any such reuse or modification without written verification or adaptation by Engineer, as appropriate for the specific purpose intended, will be at the Owner's sole risk and without liability or legal exposure to Engineer or to Engineer's subconsultants. The Owner shall indemnify and hold harmless Engineer and Engineer's subconsultants from all claims, damages, losses, and expenses, including attorneys' fees arising out of or resulting there from. If there is a discrepancy between the electronic files and the hard copies, the hard copies will govern.
14. Compile, review, and comment on operation and maintenance manuals, which will be provided by Contractor in accordance with the Contract Documents.
15. Assist the Operator and/or the Owner's representatives during start-up of the project. The Engineer shall provide technical support and professional advice regarding any unforeseen problems with the operation and maintenance of the Project for a period of 1 year to the Owner.
16. Construction Materials Testing - Construction materials testing is included in this scope of work for the two sites. Testing shall be conducted on soils and concrete by Arias & Associates under a subconsultant agreement with the Engineer. The bid packages shall specify that the Owner will pay the Geotechnical Engineering company/lab directly for all passing tests that are required by the bid package. All failing tests or tests taken for the Contractor's benefit shall be paid by the Contractor.
17. Resident Project Representative services are specifically excluded from this scope of work and will be provided by the City's construction inspectors. Therefore, daily or weekly inspection of the work will not be conducted by DCS.
18. Construction staking is specifically excluded from this scope of work and shall be provided and paid for by the construction Contractor.

4. **Owner's Responsibilities**
   A. Owner shall have those responsibilities set forth in the Professional Services Agreement.
5. **Times for Rendering Services**
   A. Consultant shall have those responsibilities set forth in Article II of the Professional Services Agreement.

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B. Authorization to Proceed: Signing of this Agreement for services shall be authorization by the Owner for DCS to proceed with the work.

C. The timeline is based on receiving the notice to proceed by June 13, 2019. Construction will reach substantial completion as noted below which includes the average number of rain days per month experienced in Central Texas. Substantial completion will be defined in the bid documents to the Contractor as the chemical control systems being capable of safely, reliably and consistently operated to delivery sodium permanganate.

D. The services will be performed for preliminary design finalization (1 week), final design (three months), City Plan and Specification Review (three weeks), DCS address City comments (2 weeks) bidding and award (six weeks), and construction (five months). All services will be performed over a total of 11.5 months with completion dates as noted below.

• Notice to Proceed Issued by	June 13, 219
• Preliminary Design Review Meeting with City	June 20, 2019
• Final Design - 30% Design Review Meeting with City	July 21, 2019
• Final Design – 90% Design Submittal	September 20, 2019
• Client 90% Design Review Comments to Engineer by	October 11, 2019
• Final Design – 100% Design Submittal	October 25, 2019
• First Advertisement	October 25, 2019
• Bid Opening	November 15,2019
• Award	December 10, 2019
• Contractor's Notice to Proceed	December 17, 2019
• Substantial Construction Completion	April 16, 2020
• Final Construction Completion/Close-out	May 17, 2020

6. **Subconsultants:**
   A. Arias & Associates – Geotechnical Materials Testing
7. **Other Modifications to Agreement:** None.

City of Pflugerville Water Treatment Plant Engineering Services
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Attachment B

In accordance with the Professional Services Agreement for Water Treatment Plant Engineering Services between City and Engineer ("Agreement"), City and Engineer agree that additional work shall be added to the Professional Services Agreement for Water Treatment Plant Engineering Services dated January 20, 2015 as follows:

1. **Compensation for Professional Services**
   A. City shall pay Engineer for services rendered as follows: DCS Engineering, LLC will invoice monthly for services rendered the preceding month based on the percentage of services completed. City shall pay DCS Engineering, LLC within 30 days for the services rendered and invoiced.
   B. Lump Sum Fee: We propose to provide the services described above on a lump sum fee basis as detailed in the below Fee Schedule. Out-of-pocket expenses, including plotting, reproduction, deliveries, automobile mileage, equipment rental, and travel expenses are included in the below fee. Our proposed fees for the above scope of work are shown by task in the below table. The above referenced services will be performed within the duration discussed in Attachment A.

Fee Schedule

Task	Description	Lump Sum Fee
400	Preliminary Design	$7,960.00
500	Final Design	$39,680.00
600	Bidding	$6,520.00
700	Construction Administration	$18,600.00
800	Geotechnical Materials Testing – Arias (T&M)	$6,000.00
	Lump Sum Fee =	**$77,760.00**

   C. The terms of payment are set forth in Article IV of the Professional Services Agreement and Work Authorization No. 2019-1 – Exhibit A.

DCS
Zebra Mussel Chemical Control System
Hour Estimate by Task

Billable Rate ($/hr)		$200 Engineer VI	$125 Engineer III	$100 Engineer II	$100 Engineer II	$100 Engineer II	$100 Engineer II	$125 CAD Manager	$65 CAD Tech	$45 Project Coordinator			
		Darren Strozewski	Robert Moss	Jessica Simpson	Bryce Brady	Michael Buckel	Jordan Hurta	Melody Strozewski	Casey Clark	Elyse Wheeler			
Task No.	**Task Description**	**Principal/QC**	**Design Manager**	**Project Engineer**	**Project Engineer**	**Project Engineer**	**Project Engineer**	**CAD Designer**	**CAD Tech**	**Project Coord**	**Total Hours**	**Sub consultants**	**Task Total**
400	Preliminary Design												
	Preliminary Design: Item 2, Tasks 1 through 7 in Attachment A												
1	Evaluate sizing, location, injection ponts of chemicals, & CMU building	4	3	7									
2	Coordinate with FEMA floodplain maps		1	5									
3	Coordinate with record drawings		2	4									
4	Coordinate with regulatory agencies on permitting information	1	2	4									
5	Utilize criteria in City Design Standards & TCEQ's Chapter 290		3	4									
6	Identify potential challenges & recommendations for implementation		1	4									
7	Conceptual layouts for each evaluated facility	3	6	12					1	1			
	Subtotal Hours for Task No. 400	8	18	40	0	0	0	0	1	1	68		
	Subtotal Fee for Task No. 400	$ 1,600.00	$ 2,250.00	$ 4,000.00	$ -	$ -	$ -	$ -	$ 65.00	$ 45.00		$ -	$ 7,960.00
500	Final Design												
	Final Design: Item 3, Tasks A.1 through A.14 in Attachment A												
1	Project kick off meeting with City Staff	2	3	8						1			
2	Monthly project status updates	2	2	2									
3	Advise Owner of investigations or special testing		3	2									
4	30% and 90% design review	4	2	12									
5	Update most probable cost of construction & advise Owner of cost changes at 90%	1	4	8									
6	Provide data & assist Owner with approval for routine permits		2	5									
7	Perform field surveys to collect information		3	8	1								
8	Site plans drawn to locate proposed buildings		2	50	2								
9	Preparation of construction contract drawings	1	2	40	1			80	40	3			
10	Preparation for specifications		6	16	2	2	2			7			
11	Prepare contract, proposal, invitation to bid, and instruction to bidders		2	1		2	2			4			
12	Estimation of constuction cost prepared by engineer	1	4	4						4			
13	Provide copies of final plans, specifications, notice to bidders, and propsals		3	2						4			
14	Sumbit summary letter and engineering report to TCEQ	1	2	2	2					1			
	Subtotal Hours for Task No. 500	12	40	160	8	4	4	80	40	24	372		
	Subtotal Fee for Task No. 500	$ 2,400.00	$ 5,000.00	$ 16,000.00	$ 800.00	$ 400.00	$ 400.00	$ 10,000.00	$ 2,600.00	$ 1,080.00		$ -	$ 38,680.00
600	Bidding												
	Bidding Phase Services: Item 3, Tasks B.1 through B.6 in Attachment A												
1	Advertising for proposals, maintain record of bidders, & attend pre-bid conference	3	3	2						2			
2	Provide Civacast with PDF copies of plans and specification			1						2			
3	Newspaper advertisements for bidding process			1						2			
4	Issue addenda of Contract Documents	3	3	12						4			
5	Consult Owner for the acceptability of substitute materials and equipment	1	1	6	2								
6	Conduct, prepare, and evaluate bids or proposals	1	1	6	2					6			
	Subtotal Hours for Task No. 600	8	8	28	4	0	0	0	0	16	64		
	Subtotal Fee for Task No. 600	$ 1,600.00	$ 1,000.00	$ 2,800.00	$ 400.00	$ -	$ -	$ -	$ -	$ 720.00		$ -	$ 6,520.00
700	Construction Adminstration and Management Services												
	Constructon Phase Services: Item 3, Tasks C.1 through C.15 in Attachment A												
1	Consult and advise Owner through Construction phase		2	8									
2	Coordinate and oversee participation in Pre-Construction conference	2	2	16						2			
3	Make periodic site vists to check on progress and quality of work		4	12						4			
4	Advise Owner if work is disapproved or rejected while in progress		1	8									
5	Issue instructions and change orders to contractor		2	8									
6	Evaluate & determine acceptable substitue materials & equipment		1	7									
7	Advise on required inspections/testing of work in compliance with Contract			5									
8	Understand requirements, judge acceptability of Work and claims of progress			12			1						
9	Review data submitted by contractor and assemble written guarantees			3			2						
10	Review Pay Applications & recommend payment amount to Contractor	1	2	9						4			
11	Review maintenance & operating instructions & other construction documents			6		4				10			
12	Conduct final inspection to determine completion date and final payments			16						2			
13	Revise contract drawings to provide record drawings of completed Project	2		8			1			6			
14	Compile, review, & comment on operation and maintenance manuals				8					12			

DCS
Zebra Mussel Chemical Control System
Hour Estimate by Task

Billable Rate ($/hr)		$200	$125	$100	$100	$100	$100	$125	$65	$45			
		Engineer VI	Engineer III	Engineer II	Engineer II	Engineer II	Engineer II	CAD Manager	CAD Tech	Project Coordinator			
		Darren Strozewski	Robert Moss	Jessica Simpson	Bryce Brady	Michael Buckel	Jordan Hurta	Melody Strozewski	Casey Clark	Elyse Wheeler			
Task No.	**Task Description**	**Principal/QC**	**Design Manager**	**Project Engineer**	**Project Engineer**	**Project Engineer**	**Project Engineer**	**CAD Designer**	**CAD Tech**	**Project Coord**	**Total Hours**	**Sub consultants**	**Task Total**
15	Provide technical support and professional advice during start-up of project	1	2	2									
	Subtotal Hours for Task No. 700	6	16	120	8	4	4	0	0	40	198		
	Subtotal Fee for Task No. 700	$ 1,200.00	$ 2,000.00	$ 12,000.00	$ 800.00	$ 400.00	$ 400.00	$ -	$ -	$ 1,800.00		$ -	$ 18,600.00
800	Subconsultant Fees												
	Goetechnical Materials Testing - Arias (Time and Material)											6000	
	Subtotal Fee for Task No. 800											$ 6,000.00	$ -
	Total Hours	34	82	348	20	8	8	80	41	81	702		
	Total Fee	$ 6,800.00	$ 10,250.00	$ 34,800.00	$ 2,000.00	$ 800.00	$ 800.00	$ 10,000.00	$ 2,665.00	$ 3,645.00		$ 6,000.00	$ 77,760.00