

TO: MICHAEL S. LEBRUN *MSL*
GENERAL MANAGER

FROM: PETER V. SEVCIK *P.V.S.*
DISTRICT ENGINEER

DATE: OCTOBER 19, 2011

**AGENDA ITEM
E-1
OCTOBER 26, 2011**

**AECOM SCOPE AMENDMENTS #12 AND #13 FOR
DESIGN OF THE SUPPLEMENTAL WATER PROJECT**

ITEM

Consider approval of Scope Amendment #12 with AECOM for engineering services in the amount of \$252,059 for design phase tasks and Scope Amendment #13 with AECOM for engineering services in the amount of \$132,091 for optional design phase tasks for the Supplemental Water Project [RECOMMEND BY MOTION AND ROLL CALL VOTE TO APPROVE SCOPE AMENDMENT #12 WITH AECOM IN THE AMOUNT OF \$252,059, APPROVE SCOPE AMENDMENT #13 WITH AECOM IN THE AMOUNT OF \$132,091, AND AUTHORIZE STAFF TO EXECUTE TASK ORDERS].

BACKGROUND

The Board selected AECOM in July 2008 through a competitive process to provide final engineering design phase services for the Supplemental Water Project. The project scope, complexity and schedule have changed significantly since the award of the original design contract. Design work for the Supplemental Water Project was idled in February 2011 while public outreach and assessment district formation efforts proceeded in order to secure funding for the project. Those efforts are currently anticipated to be completed by May 2012. The design effort for the Supplemental Water Project needs to be restarted now so that the design can be completed and the project is ready to bid by May 2012 assuming the assessment district formation effort is successful.

The project is being designed in four construction bid packages and the design completion status of each of the bid packages is as follows:

Bid Package #1 – Santa Maria River Crossing – 60% Complete Design

- 2,600 lineal feet of 24-inch diameter waterline installed via horizontal directional drilling (HDD) bore underneath the Santa Maria River
- 280 lineal feet of 24-inch diameter waterline

Bid Package #2 – Nipomo Area Pipeline Improvements – 95% Complete Design

- 16,000 lineal feet of 12 inch diameter waterline
- 4 pressure reducing valve stations
- 210 lineal foot freeway waterline crossing installed via jack and bore

Bid Package #3 – Blosser Road Water Main and Flow Meter – 95% Complete Design

- 4800 lineal feet of 18 inch diameter waterline
- 300 lineal feet of waterline crossing under the Santa Maria River levee installed via jack and bore
- 770 lineal feet of 24 inch waterline
- Flow metering and control station

Bid Package #4 – Joshua Road Pump Station and Reservoir, Wellhead Chloramination Improvements – 90% Complete Design

- 1700 lineal feet of 24-inch waterline
- 2,000 gallon per minute capacity pump station
- 500,000 gallon partially buried pre-stressed concrete tank
- 4 wellhead chloramination systems
- 1 pressure reducing valve station

The original design contract amount was \$920,830. The current authorized contract amount is \$1,419,044. There have been a total of eleven (11) budget revisions to the original contract as the project has evolved, three of which, Budget Revision 1 – Pressure Reduction Study, Budget Revision 8 – 60% Design Budget Update, and Budget Revision 9 – 90% Design Budget Update, total \$410,382 and account for 82% of the increased contract amount. Current overall design cost is approximately 7.7% of the overall project construction cost of \$18,300,000.

The project design is ready to proceed to completion. The peer review team, AECOM and District staff identified a number of issues that need to be addressed as part of the design effort to complete the design and advance the project through the bid stage. This work includes tasks covered under the existing scope, additional work not covered by the current scope, effort to review the design status after nine months, additional project management tasks to cover the extended schedule and additional effort required for bid phase services based on the current project design.

The additional work tasks and their associated costs required to complete the design of the project are outlined in the attached AECOM Scope Amendment #12. As set forth in the attached proposal, AECOM is willing to perform this work on a time-and-materials basis with a not-to-exceed expenditure limit of \$252,059. The proposed additional design work is anticipated to reduce risk and cost to the District during construction by reducing unknown conditions for Contractors during bidding and minimizing the potential for change orders during construction.

District staff also asked AECOM to prepare a proposal to provide engineering services for several optional design phase tasks associated with the Supplemental Water Project. These services are termed optional because they are not required to complete the design of the Supplemental Water Project so that the project can go out to bid but rather are related to the delivery of water to the District's partner purveyors. The tasks involve hydraulic modeling work to evaluate the potential impact of a Rural Water Company connection on the District's water system, hydraulic modeling work to evaluate operating impacts of delivering water to the District's partner purveyors through the District's system to support the development of a cost recovery methodology that can be incorporated into the District's water delivery agreements with the partner purveyors, and design of turnouts (interconnects) to be able to deliver water to each of the partner purveyors' water distribution systems.

The optional design tasks and their associated costs are outlined in the attached AECOM Scope Amendment #13. As set forth in the attached proposal, AECOM is willing to perform this work on a time-and-materials basis with a not-to-exceed expenditure limit of \$132,091 based on the assumptions in the proposal. If the design work for these optional tasks is performed separately and the construction is added to the Supplemental Water Project by change order after the project is bid, the costs related to these turnout facilities could be significantly higher.

There may be future amendments to the design agreement given the nature of the project and the time and materials basis of the design agreement. While the design is almost complete, a scope amendment related to construction phase services (engineering during construction) will likely be required since the project has changed significantly since the initial design contract approved by the Board. The projected overall design cost, with the proposed amendments, would be approximately 9.8% of the overall project construction cost of \$18,300,000.

FISCAL IMPACT

As of September 30, 2011, AECOM has billed the District \$1,147,484 for design services for the Supplemental Water Project. Execution of the proposed amendment would increase the not-to-exceed expenditure limit from \$1,419,044 to \$1,803,194. With the proposed amendment, the remaining contract amount to be billed will be \$655,710.

The FY 11-12 Budget includes \$2,713,379 in the Supplemental Water Project Fund (Fund #500) for the project. Thus, sufficient funding is available in the current fiscal year to complete the design effort.

The overall Supplemental Water Project cost of \$25.3 million will be updated as the design is completed, the draft assessment engineer's report is developed and when the District's \$2.3 million share of the Proposition 84 Implementation Grant awarded to San Luis Obispo County is secured by the required grant agreement with the State of California Department of Water Resources.

STRATEGIC PLAN

Strategic Plan Goal 1.1 – Protect, Enhance, and Assess Available Water Supplies
Strategic Plan Goal 1.2 – Secure New Supplies to Meet Demands
Strategic Plan Goal 1.5 – Comply with State and Federal Regulations and Mandates

RECOMMENDATION

Staff recommends that the Board receive AECOM's presentation and ask questions as appropriate. Furthermore, staff recommends that the Board, by motion and roll call vote:

1. Approve Scope Amendment #12 with AECOM in the amount of \$252,059.
2. Approve Scope Amendment #13 with AECOM in the amount of \$132,091.
3. Authorize the General Manager to execute the necessary Task Orders.

ATTACHMENT

- AECOM Supplemental Water Project Budget Revision Request #12 dated October 18, 2011
- AECOM Supplemental Water Project Budget Revision Request #13 dated October 18, 2011
- Design Schedule Dated October 19, 2011



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October 18, 2011

Mr. Michael LeBrun, PE
General Manager
Nipomo Community Services District
P.O. Box 326
Nipomo, CA 93444

Dear Mr. LeBrun,

Supplemental Water Project: Scope Amendment 12 – Work to Complete Design & Bid Phase

AECOM has prepared this scope amendment to address additional work required to remobilize and complete engineering services through design and bidding for the Supplemental Water Project. In February 2011, the District directed AECOM to temporarily halt design on the Project while the District pursued a public outreach campaign.

We have organized this scope amendment with a summary of the work required to complete the design and advance the project through bidding, including work covered under the existing scope, additional work requested by District staff, effort to review the design status after nine months ("remobilization"), additional project management tasks to cover the extended schedule (not including the nine month idle), and the additional effort required for bid phase services. We have included a budget credit for the design and bid phase amounts unbilled. This scope amendment does not address the construction phase services or operational support. The estimated engineering fee for these services totals \$252,059 and is summarized in the tables below, with descriptions following for each main task. The detailed design and bid-phase budgets and the schedule are attached.

Task Description	Estimated Engineering Fee
Bid Package #1 Design (HDD River Crossing)	\$73,114
Bid Package #2 Design (Nipomo Area Improvements)	\$30,242
Bid Package #3 Design (Blosser Rd Watermain and Flow Meter)	\$28,354
Bid Package #4 Design (Pump Station and Chloramination Systems)	\$87,854
Other Design Phase Tasks	\$22,941
Project Management	\$21,978
Credit for Existing Design Budget	(\$53,595)
Total Design Phase Services	\$210,888



Task Description	Estimated Engineering Fee
Bid Phase Services	\$85,410
Credit for Bid Phase Services Budget Remaining	(\$44,239)
Total Bid Phase Services	\$41,171

Bid Package #1 – Santa Maria River Crossing

Bid Package #1 includes the design and prequalification of the contractor for the HDD crossing of the Santa Maria River. The design is at 60% completion and the draft prequalification package has been submitted. Both have been reviewed by District staff and the peer review team. Remaining work under AECOM's existing scope includes the 90% and final prequalification package, assistance with prequalification (performed under bid phase services), and the 90% and final construction documents. Additional work covered under this scope amendment includes a review of the design status and renegotiation of the Streambed Alteration Agreement with the California Department of Fish and Game (CDFG). AECOM and Padre, with review and input from District staff, will negotiate the terms of the permit with the goal of adding conditions allowing work during active flow in the River and/or during the rainy season. If CDFG allows, this will provide flexibility in the construction schedule which will allow more accurate and lower bids.

The estimated budget for completion of Bid Package #1 design and preparation of the prequalification package is \$73,114. Additional prequalification assistance (during prequalification of bidders) is covered under bid-phase services below.

Bid Package #2 – Nipomo Area Pipeline Improvements

Bid Package #2 includes the design of system improvements within the District's distribution system required to accept and distribute the supplemental water from the pump station. The improvements consist of 16,300 linear feet of 12-inch PVC water pipeline, four pressure reducing valve (PRV) stations to create a new pressure zone (protecting existing infrastructure and homes from increased pressures), and a jack-and-bore crossing underneath Highway 101. Draft final construction documents have been submitted and reviewed. Work under AECOM's existing scope includes addressing review comments, final coordination with the County regarding encroachment permit conditions, and final construction documents. Additional work requested consists of a revised draft final submittal for District staff and the construction management team to review the construction documents one last time before producing bid documents.

The budget estimated for completion of Bid Package #2 with the additional work requested is \$30,242.

Bid Package #3 – Blosser Road Water Main and Flow Meter

Bid Package #3 includes the design of the improvements in the City of Santa Maria. The improvements consist of the turnout, flow control valve and flow meter vaults, 5,000 linear feet of 18-inch DIP water pipeline, a jack-and-bore underneath the Santa Maria River levee, and 770 linear feet of deep open-trenched 24-inch DIP water pipeline to the HDD transition point. The flow control valve and flow meter require instrumentation and telemetry control panels for the City of Santa Maria and the District. The final, stamped construction documents were submitted in July 2010. However, since then the District has updated their front end documents and the City of Santa Maria has requested a

few additional changes. District staff have requested a revised draft final and final submittal to integrate these changes and review the construction documents before bidding. AECOM has incorporated time for a review meeting with the City and District staff to help ensure "buy-in" on the final design.

AECOM has also included preparation of a bid alternate for a 24-inch water pipeline along Blosser Road. This will allow the District to compare bids for an 18-inch waterline on Blosser, currently in the design, to a 24-inch waterline, which is a planned option for future phases and covered in the Environmental Impact Report.

The budget estimated for completion of Bid Package #3 with the additional work requested is \$28,354.

Bid Package #4 – Joshua Road Pump Station and Reservoir, Wellhead Chloramination Improvements

Bid Package #4 includes the design of a pump station, water tank, and chloramination systems at the pump station and four of the District's existing production wells. The improvements at the pump station and tank site include a 500,000-gallon buried concrete reservoir, a 2,000-gpm pump station with four 100-Hp variable speed vertical turbine pumps, a chloramination system, 1,750 linear feet of 24-inch DIP transmission main, a 1,700-foot long all weather access road, and a PRV station. The wellhead chloramination improvements include chemical storage buildings, chloramination equipment including storage tanks, dosing pumps, control panels, and meters, and site piping.

AECOM submitted the 90% plans and specifications in June 2010. We have received comments from District staff and the District's peer review team. The existing scope includes coordination with PG&E for electrical service to the pump station and one final submittal. Additional work requested consists of a draft final submittal for District staff and the construction management team to review the construction documents before producing final documents for bidding.

The budget estimated for completion of Bid Package #4 with the additional work requested is \$87,854.

Other Design Phase Tasks

Tasks that didn't fall under any one bid package or project management have been grouped separately. This work includes updating the construction cost opinion, land surveying and applications for the public lot, assistance with a strategy for instrumentation integration, and updating the project name on all design documents. This additional work requested is budgeted at \$22,941.

As the Project design continues, AECOM will provide the District with an updated construction cost opinion. This scope amendment assumes the cost opinion will be evaluated and updated three times – immediately upon approval to assist with updating the assessment effort, and just after each of the draft final and final stages of design.

In coordination with the District's SCADA Upgrade Project, AECOM will assist District staff with development and implementation of a strategy to achieve continuity in SCADA integration throughout the Project. It is anticipated that this will be coordinated through the bid forms, up front documents, and technical specifications as needed, and not require changes to the plans.

Wallace Group, in coordination with AECOM, District staff, and other members of the project team finalized the legal descriptions and exhibits required to negotiate project easements for the Project in July 2011. The revisions included changes to a project easement, and finalization of the legal descriptions and exhibits. The easements have changed a several times over the course of the project design (with the first versions in October 2009). However, with the design near 90% complete

and with input received from the various members of the project team, this represents finalization of the legal descriptions. The final task under Wallace Group's scope is the Record of Survey required to delineate the Public Lot for the County record. This will be performed after close of escrow in coordination with title records, which is planned after the assessment vote.

The Public Lot is being created from a portion of an existing parcel. In order to provide the previous Owner with a legal lot for the remainder parcel, an Certificate of Compliance application to the County Department of Planning and Building is required. This scope amendment includes time to complete the application on behalf of the District and coordinate submittal to the County. It is assumed that the District will pay any required application fees and that the application will be completed in conjunction with the Record of Survey, after the assessment vote.

AECOM will update the design documents, including specifications and plan sheets for all four bid packages, the prequalification package, and reports to the District to reflect the new Project name, Supplemental Water Project.

Project Management

Project management services were last extended with Scope Amendment #8 in December 2009. At that time the design documents were projected to be complete by August 2010. Design documents are now projected to be completed by May 2012. This scope amendment includes meetings and related project management services for the schedule delays, but excludes the nine months while design on the project was on hold. A budget of \$21,978 is included for the additional project management required.

Existing Design Budget Credit

We have included a budget credit for the amount remaining in the design-phase budget for the project. This is reflected on the detailed table, attached, and totals \$53,595.

Bid Phase Services

This scope amendment includes an update to the bid-phase services scope and estimated engineering fee, which has not been updated since the original contract with the District (July 2008).

Task 501. General and HDD subcontractor prequalification - The budget for this task has been updated to reflect the current fee schedule. AECOM will tailor a prequalification procedure to the specific features of this project. This procedure will follow the California Department of Industrial Relations recommendations, methodology, and criteria for prequalification of the contractor(s). Preparation of the prequalification package is included under Bid Package #1 design. The prequalification steps included in bid-phase services are advertisement, distribution, evaluation, interviews, and prequalified contractor orientation.

Task 502. Bid-Phase Services – The budget for this task has been updated to reflect the current fee schedule and the latest composition of the project. The level of effort has been adjusted based on the evolution of the Project design and experience with a more complicated bid climate. Time spent on bid-phase services is a function of the number of contractors that respond and the prevailing bid climate, both of which are outside of AECOM's control, unlike design tasks. Based on our recent experience, we are anticipating considerably more RFIs and higher Contractor interest than was previously budgeted for in 2008. Therefore, we recommend the District augment the budget for bid-phase services so that the District has sufficient allowance for adequately responding to Contractor's requests.

AECOM will provide bid-phase services for the four bid packages, including the following:

- Provide plans and specifications for Electronic Bid Clearinghouse;
- Prepare 20 bid sets of construction documents for each of four Bid Packages;
- Organize and attend one pre-bid job walk per bid package;
- Respond to inquiries from bidders;
- Receive bidder's questions and coordinate responses with the District, as required (respond to up to 10 RFIs).
- Prepare and distribute up to ten (10) addenda, if required;
- Assist the District in bid review;
- Provide recommendations on successful bidder award;
- Assist District in resolving bid protests (if necessary);
- Attend District Board meeting to present recommendations on bidder award.

The estimated budget for bid-phase services (Tasks 501 and 502) is \$85,410.

Existing Budget Credit

We have included a budget credit for the amount left in the bid-phase budget for the Project. This is reflected on the detailed table, attached, and totals \$44,239.

Schedule

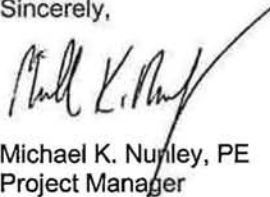
The schedule for the remaining design phase is based on producing plans and specifications in time to go out to bid immediately following a successful assessment vote, currently planned for late April 2012. AECOM will continue to work closely with District staff as the Project develops. The current design schedule is attached.

Budget

AECOM will perform this work on a Time and Materials basis, with a budget not to exceed \$252,059 unless prior authorization is granted in writing by the District. See the attached spreadsheets for a breakdown of fees.

If you have questions or comments, please contact me to discuss. We look forward to continuing work with you and completing the design of this important project.

Sincerely,



Michael K. Nunley, PE
Project Manager

Attachments: Design Phase Estimated Fee Summary, Bid Phase Services Estimated Fee Summary, Current Project Schedule

Estimated Engineering Fee

Supplemental Water Project
Scope Amendment #12A - Work to Complete Design

Nipomo Community Services District

Task Description	Personnel Hours					Total Hours	Budget				
	Principal	Senior Engineer II	Associate Engineer	Senior CAD Operator	Administrative		Labor	General Project Expenses	Subconsultants	Total Non-Labor	Total
Bid Package 1 Design (HDD River Crossing)											
Review design status ("remobilization")	8	18	8	5		39	\$ 6,240	\$ 499		\$ 499	\$ 6,739
Renegotiate permit w/CA Dept. of Fish & Game, permitting support	2		6			8	\$ 1,200	\$ 96	\$ 2,640	\$ 2,736	\$ 3,936
Prepare 90% prequalification package	6	8	20		4	38	\$ 5,480	\$ 438		\$ 438	\$ 5,918
Prepare final prequalification package	4	4	8		2	18	\$ 2,690	\$ 215		\$ 215	\$ 2,905
Prepare 90% construction documents											
Address comments from 60% review	6		8	16	2	32	\$ 4,210	\$ 337		\$ 337	\$ 4,547
Update plans and specifications	30		96	75	16	217	\$ 28,230	\$ 2,258		\$ 2,258	\$ 30,488
QC review	10					10	\$ 2,100	\$ 168		\$ 168	\$ 2,268
Print (3 for QC, 7 for submittal)				8	4	12	\$ 1,180	\$ 744		\$ 744	\$ 1,924
Prepare final construction documents											
Address comments from 90% review	12		35	24	2	73	\$ 9,860	\$ 789		\$ 789	\$ 10,649
QC review	8					8	\$ 1,680	\$ 134		\$ 134	\$ 1,814
Print (3 for QC, 7 for submittal)				8	4	12	\$ 1,180	\$ 744		\$ 744	\$ 1,924
Subtotal	86	30	181	136	34	467	\$ 64,050	\$ 6,424	\$ 2,640	\$ 9,064	\$ 73,114
Bid Package 2 Design (Nipomo Area Improvements)											
Review design status ("remobilization")	3	8	24	6		41	\$ 5,730	\$ 458		\$ 458	\$ 6,188
Coordinate with County for draft Encroachment Permit	1		5			6	\$ 860	\$ 69		\$ 69	\$ 929
Prepare revised draft final construction documents											
Remove Frontage Road sewer from plans, show as installed			6	18		24	\$ 2,760	\$ 221		\$ 221	\$ 2,981
Address comments from last review	4	2	24	18	4	52	\$ 6,570	\$ 526		\$ 526	\$ 7,096
Revise PRV electrical/control panels	1		2	6		9	\$ 1,130	\$ 90		\$ 90	\$ 1,220
QC Review	10					10	\$ 2,100	\$ 168		\$ 168	\$ 2,268
Print (4 for QC, 7 for submittal)				4		4	\$ 440	\$ 1,135		\$ 1,135	\$ 1,575
Prepare final construction documents											
Address comments from last review	2	1	12	14	2	31	\$ 3,835	\$ 307		\$ 307	\$ 4,142
QC Review	10					10	\$ 2,100	\$ 168		\$ 168	\$ 2,268
Print (4 for QC, 7 for submittal)				4		4	\$ 440	\$ 1,135		\$ 1,135	\$ 1,575
Subtotal	31	11	73	70	6	191	\$ 25,965	\$ 4,277	\$ -	\$ 4,277	\$ 30,242
Bid Package 3 Design (Blosser Rd Waterline and Flow Meter)											
Review design status ("remobilization")	2	10	24	4		40	\$ 5,630	\$ 450		\$ 450	\$ 6,080
Prepare bid alternate for 24" pipeline	2		35	8		45	\$ 5,850	\$ 468		\$ 468	\$ 6,318
Prepare draft final construction documents											
Address City's concerns	2	10	8	16	4	40	\$ 5,170	\$ 414		\$ 414	\$ 5,584

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Estimated Engineering Fee

Supplemental Water Project
Scope Amendment #12A - Work to Complete Design

Nipomo Community Services District

Task Description	Personnel Hours					Total Hours	Budget				
	Principal	Senior Engineer II	Associate Engineer	Senior CAD Operator	Administrative		Labor	General Project Expenses	Subconsultants	Total Non-Labor	Total
QC Review	8					8	\$ 1,680	\$ 134		\$ 134	\$ 1,814
Print (4 for QC, 7 for submittal)				4		4	\$ 440	\$ 1,025		\$ 1,025	\$ 1,465
Prepare final construction documents											
Address comments on draft final	1	4	6	12	4	27	\$ 3,270	\$ 262		\$ 262	\$ 3,532
QC Review	6					6	\$ 1,260	\$ 101		\$ 101	\$ 1,361
Print (4 for QC, 7 for submittal)				4		4	\$ 440	\$ 1,025		\$ 1,025	\$ 1,465
Meeting with District and City staff (1)	2		2			4	\$ 680	\$ 54		\$ 54	\$ 734
Subtotal	23	24	75	48	8	178	\$ 24,420	\$ 3,934	\$ -	\$ 3,934	\$ 28,354
Bid Package 4 Design (Pump Station & Chloramination Systems)											
Review design status ("remobilization")	20	34	16	8		78	\$ 12,770	\$ 1,022		\$ 1,022	\$ 13,792
Coordinate with PG&E (1 meeting + correspondence)	2		3		2	7	\$ 960	\$ 77		\$ 77	\$ 1,037
Prepare draft final construction documents											
Address comments from last review	4	16	8	24	4	56	\$ 7,460	\$ 597		\$ 597	\$ 8,057
Complete Surge Tank design		10		16		26	\$ 3,410	\$ 273		\$ 273	\$ 3,683
Check culvert design			4			4	\$ 520	\$ 42		\$ 42	\$ 562
Review residual analyzer at wells		4	8			12	\$ 1,700	\$ 136		\$ 136	\$ 1,836
Shorten travel time for samplers	4	4	8	10		26	\$ 3,640	\$ 291		\$ 291	\$ 3,931
Design conduit bank to pump station (BR#10)	19	60		34	6	119	\$ 18,080	\$ 1,446		\$ 1,446	\$ 19,526
Via Concha well site redesign (BR#10)	5		8	16		29	\$ 3,850	\$ 308		\$ 308	\$ 4,158
Sundale well site redesign (since rebuild)	5		8	16		29	\$ 3,850	\$ 308		\$ 308	\$ 4,158
QC Review	32	14	8	4		58	\$ 10,510	\$ 841		\$ 841	\$ 11,351
Print (5 for QC, 7 for submittal)				4		4	\$ 440	\$ 1,475		\$ 1,475	\$ 1,915
Prepare final construction documents											
Address comments from review of draft final	6	8	18	20	2	54	\$ 7,270	\$ 582		\$ 582	\$ 7,852
QC Review	18					18	\$ 3,780	\$ 302		\$ 302	\$ 4,082
Print (5 for QC, 7 for submittal)				4		4	\$ 440	\$ 1,475		\$ 1,475	\$ 1,915
Subtotal	115	150	89	156	14	524	\$ 78,680	\$ 9,174	\$ -	\$ 9,174	\$ 87,854
Other Design Phase Tasks											
Update Opinion of Probable Construction Cost (3 times)	14	6	36			56	\$ 8,610	\$ 689		\$ 689	\$ 9,299
Assist with strategy and bid docs for instrumentation integrator	2	16	4			22	\$ 3,580	\$ 286		\$ 286	\$ 3,866
Revisions to legal descriptions and Record of Survey for Public Lot			6			6	\$ 780	\$ 62	\$ 6,050	\$ 6,112	\$ 6,892
Certificate of Compliance application - Public Lot			4			4	\$ 520	\$ 42		\$ 42	\$ 562
Update Project name on design documents				10	14	24	\$ 2,150	\$ 172		\$ 172	\$ 2,322
Subtotal	16	22	50	10	14	112	\$ 15,640	\$ 1,251	\$ 6,050	\$ 7,301	\$ 22,941

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Estimated Engineering Fee

**Supplemental Water Project
Scope Amendment #12A - Work to Complete Design**

Nipomo Community Services District

Task Description	Personnel Hours					Budget					
	Principal	Senior Engineer II	Associate Engineer	Senior CAD Operator	Administrative	Total Hours	Labor	General Project Expenses	Subconsultants	Total Non-Labor	Total
Project Management											
402 - Monthly Progress Reports	11		22			33	\$ 5,170	\$ 414		\$ 414	\$ 5,584
403 - Decision Log	4		8			12	\$ 1,880	\$ 150		\$ 150	\$ 2,030
404 - Monthly Board Meetings	11		22			33	\$ 5,170	\$ 414		\$ 414	\$ 5,584
405 - Meetings with District staff	11		16			27	\$ 4,390	\$ 351		\$ 351	\$ 4,741
406A - Monthly standing Committee Meetings	11		11			22	\$ 3,740	\$ 299		\$ 299	\$ 4,039
Subtotal	48	-	79	-	-	127	\$ 20,350	\$ 1,628	\$ -	\$ 1,628	\$ 21,978
Credits for Existing Budget											
Credit for design budget remaining	(20)	(55)	(100)	(181)	(13)	(369)	\$ (47,181)	\$ (3,774)	\$ (2,640)	\$ (6,414)	\$ (53,595)
Subtotal	(20)	(55)	(100)	(181)	(13)	(369)	\$ (47,181)	\$ (3,774)	\$ (2,640)	\$ (6,414)	\$ (53,595)
Total	299	182	447	239	63	1,230	\$ 181,924	\$ 22,914	\$ 6,050	\$ 28,964	\$ 210,888

<u>Personnel Category</u>	<u>\$/HR</u>
Principal	\$210.00
Senior Engineer II	\$165.00
Associate Engineer	\$130.00
Senior CAD Operator	\$110.00
Administrative	\$75.00

Estimated Engineering Fee

**Supplemental Water Project
Scope Amendment #12B - Bid Phase Services**

Nipomo Community Services District

Task Description	Personnel Hours						Budget		
	Principal	Senior Engineer II	Associate Engineer	Design CAD Operator	Administrative	Total Hours	Labor	Non-Labor Fee	Total
Bid Phase Services									
Task 501 - General & HDD Subcontractor prequalification (BP#1)									
Identify list of Contractors		1	6			7	\$ 945	\$ 76	\$ 1,021
Distribute up to 15 prequalification packages			5		5	10	\$ 1,025	\$ 682	\$ 1,707
Facilitate District's review of prequalification packages	12		8			20	\$ 3,560	\$ 285	\$ 3,845
Facilitate interviews and assist with District's evaluation	20		8			28	\$ 5,240	\$ 419	\$ 5,659
Draft letters of notifications	1		4			5	\$ 730	\$ 58	\$ 788
Conduct orientation with prequalified Contractors	12	8	6			26	\$ 4,620	\$ 370	\$ 4,990
Task 502 - Bid-Phase Services (4 bid packages)									
Prepare and distribute bid sets (20 each, 4 packages)			8	16	16	40	\$ 4,000	\$ 8,320	\$ 12,320
Prebid job walk and conference	16	16	32			64	\$ 10,160	\$ 813	\$ 10,973
Respond to RFIs (up to 10)	8	20	60	20	8	116	\$ 15,580	\$ 1,246	\$ 16,826
Addenda (up to 10)	12	20	60	40	8	140	\$ 18,620	\$ 1,490	\$ 20,110
Bid analysis and recommendation	4	8	24			36	\$ 5,280	\$ 422	\$ 5,702
Attend Board meeting to recommend contractor	4		4			8	\$ 1,360	\$ 109	\$ 1,469
Subtotal	89	73	225	76	37	500	\$ 71,120	\$ 14,290	\$ 85,410
Credit for Bid-Phase Services Budget									
Credit for Bid-Phase Budget Remaining	(34)	(80)	(120)	(46)		(280)	\$ (40,962)	\$ (3,277)	\$ (44,239)
Subtotal	(34)	(80)	(120)	(46)	-	(280)	\$ (40,962)	\$ (3,277)	\$ (44,239)
Total	55	(7)	105	30	37	220	\$ 30,158	\$ 11,013	\$ 41,171

<u>Personnel Category</u>	<u>\$/HR</u>
Principal	\$210.00
Senior Engineer II	\$165.00
Associate Engineer	\$130.00
Design CAD Operator	\$110.00
Administrative	\$75.00

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 805 542 9990 fax

October 18, 2011

Mr. Michael LeBrun, PE
 General Manager
 Nipomo Community Services District
 P.O. Box 326
 Nipomo, CA 93444

Dear Mr. LeBrun,

Supplemental Water Project: Scope Amendment 13 – Optional Design Phase Tasks

Per your request, AECOM has prepared this scope amendment to summarize several optional design-phase tasks associated with the Supplemental Water Project. These services are termed optional because they are not required to complete the design of the Supplemental Water Project and go to bid. However, there are several benefits in performing these tasks, and a potentially significant cost savings in performing them now, rather than later. This scope amendment includes two separate hydraulic modeling tasks and design of the three water system interconnections between Nipomo Community Services District (NCSD) and Golden State Water Company (GSWC), Woodlands Mutual Water Company (WMWC), and Rural Water Company (RWC). The work is separated into Task Groups, as summarized in the table below. The scope is described herein with the estimated engineering fee detailed in the attached table.

	Estimated Engineering Fee
Task Group 1 – Hydraulic Modeling: Evaluate Potential Impact of RWC Connection	\$8,186
Task Group 2 – Hydraulic Modeling: Evaluate Operating Impacts of Delivering Water to Partners	\$35,543
Task Group 3 – NCSD-GSWC Turnout Design	\$27,014
Task Group 4 – NCSD-WMWC Turnout Design	\$30,399
Task Group 5 – NCSD-RWC Turnout Design	\$30,949
Total Scope Amendment #13	\$132,091

Task Group 1 – Hydraulic Modeling: Evaluate Potential Impact of Rural Water Company Connection

This effort includes calibration of the NCSD water distribution system model and hydraulic modeling to evaluate potential impacts on the NCSD system from the proposed Rural Water Company connection to the NCSD water system. RWC recently provided the District with draft plans for connection to the NCSD system at Summit Station (along Lyn Road near Stanton Road).

Tasks 101 and 102 – Water Model Calibration

The NCSD Water System Model was created in Bentley WaterGEMS Version 8.0 for the Water and Sewer Master Plan Update (Cannon, December 2007), at least four years ago. The model was utilized and amended for analyses associated with the NCSD Supplemental Water Project.

Over time, distribution system conditions change for various reasons, including improvements projects or development, maintenance and operational changes (in valves, hydrants, tanks), and age or wear of pipes and appurtenances (which increases friction losses). Calibration of the model in the Summit Station area will help provide more accurate results. One of the most common ways to develop data for calibration of hydraulic models is through fire hydrant flow tests. Fire hydrant flow tests provide valuable data and several can be performed throughout the system within a day. This scope assumes that District staff will perform fire flow hydrant tests. AECOM will attend and observe the testing and record data in the field. The data will be utilized to calibrate the model for evaluation of the proposed RWC connection.

Tasks 103 though 105 – Hydraulic Modeling

Approximately 10 model runs will be performed using the calibrated WaterGEMS model. We will run 6 scenarios developed during the work described in Technical Memorandum dated April 29, 2009 which investigated potential impacts of the Golden State Water Company (GSWC) and the Woodlands Mutual Water Company (WMWC) interconnections. These scenarios set the baseline for the system, and provide pressures without the RWC demand for comparison purposes. Four additional scenarios (Scenarios 11 through 14 in the table below) will be run to evaluate potential impacts of the RWC interconnection. The following table summarizes the conditions for the proposed modeling scenarios.

Description	Scenario	System Improvements	Demands				WIP Contribution
			NCS D	GSWC	WMWC	RWC	
Baseline	Existing A	None	3162 gpm	--	--	--	--
Baseline	Existing B	None	186 gpm	--	--	--	--
Baseline	Scenario 0A	MP + WIP	3162 gpm	--	--	--	2000 gpm
Baseline	Scenario 0B	MP + WIP	186 gpm	--	--	--	2000 gpm
GS + WM	Scenario 5	MP + WIP	3162 gpm	167 gpm	333 gpm	--	2000 gpm
GS + WM	Scenario 6	MP + WIP	186 gpm	167 gpm	333 gpm	--	2000 gpm
RWC	Scenario 11	MP + WIP	3162 gpm	--	--	167 gpm	2000 gpm
RWC	Scenario 12	MP + WIP	186 gpm	--	--	167 gpm	2000 gpm
GS+WM+RW	Scenario 13	MP + WIP	3162 gpm	167 gpm	333 gpm	167 gpm	2000 gpm
GS+WM+RW	Scenario 14	MP + WIP	186 gpm	167 gpm	333 gpm	167 gpm	2000 gpm

Notes: NCS D modeled demands are maximum day demand (3162 gpm) and 10% of average day demand (186 gpm), based on the Water and Sewer Master Plan Update (Cannon, Dec 2007). Demands for GSWC, WMWC, and RWC are assumed to be 8.33%, 16.66%, and 8.33% of 2000 AFY supplemental water, respectively, per the settlement stipulation.

All scenarios will be run with steady-state conditions, all wells off, and tanks 95% full. The PRV stations, to be installed with the Supplemental Water Project (Waterline Intertie Project, or "WIP" below), will be set at a hydraulic grade of 532.2 feet. These conditions match those set for the April 2009 modeling efforts. After modeling and evaluation, we will meet with District staff to discuss the results.



Tasks 107 and 108 – Technical Memorandum

The calibration and modeling efforts will be summarized in a draft technical memorandum, including documentation of the fire flow tests, model scenarios run, the results and recommendations. After receipt of District staff comments, four copies of the final memorandum will be provided to the District.

Task Group 1 Schedule – The following table summarizes the proposed schedule for this work.

Deliverable / Task	Schedule
Set date for Fire Flow tests	1 week from NTP
Meeting to discuss modeling results with District staff	4 weeks from Fire flow test
Draft Memorandum	3 weeks from meeting
Final Memorandum	2 weeks after receiving comments from District staff

The budget for work under Task Group 1 is estimated at \$8,186.

Task Group 2 – Hydraulic Modeling: Evaluate Operating Impacts of Delivering Water to Partners

This modeling effort will assess the impacts of delivering supplemental water through the District's system to three neighboring water systems (GSWC, WMWC, and RWC). The results will assist with estimating allocations of annual operating costs. The District's existing WaterCAD model will be reviewed, updated, and run using extended period simulation (EPS). EPS will allow investigation of potential impact to pumps, high and low pressures across the system as demands shift throughout the day, and evaluation of pipeline routes and sizes. This effort will be performed in three stages, and include meetings to gather input from District staff.

Tasks 201, 202 & 203 – Evaluate and update existing model

In the first stage, AECOM will review the District's existing water model and identify data gaps. To fill the data gaps, we will rely on existing, available data from District staff and/or utilize assumptions based on similar communities as required. This budget assumes one meeting with District staff during this stage to review and update the model and set the schedule for the work.

Tasks 204, 205 & 207 – Hydraulic Modeling

The second stage will consist of the modeling analysis and evaluation. We will provide recommended modeling scenarios and work with District staff to refine the scenarios to be run before implementing the work. This scope assumes up to 10 model scenarios will be developed.

Tasks 208 & 209 – Technical Memorandum

Finally, the evaluation and recommendations will be summarized in a draft memorandum for District staff review. After comments are received, four copies of the final memorandum will be submitted.

The budget for Task Group 2 is estimated at \$35,543.

Task Groups 3, 4, & 5 – Design of Water System Interconnects

These task groups incorporate the design of the interconnections between the NCSD water system and the water systems of the three partner purveyors on the Mesa (GSWC, WMWC, and RWC). The turnouts will allow NCSD to control and measure the quantity of water delivered to each purveyor.



NCSD and the partner purveyors are currently drafting an agreement for the purchase of water and use of the Supplemental Water Project.

The scope of work provided below is for detailed design of each turnout, including piping, meter, valves, vaults, controls, and instrumentation. The attached table summarizing the estimated engineering fee splits these task groups into three (Task Group 3 for GSWC, Task Group 4 for WMWC, and Task Group 5 for RWC). However, for efficiency, our scope assumes the investigations and design will be completed simultaneously.

Task 1 – Kickoff Meeting

A kickoff meeting will be held with NCSD and each partner purveyor (for a total of three kickoff meetings) to discuss preliminary design items (location, layout and controls, and other concerns).

Task 2 – Survey

A topographic base map will be prepared by Wallace Group include ground survey, property lines, and right-of-way information. The budget for this task assumes that the survey for the three water connections will be performed within two trips (RWC in one trip, GSWC and WMWC will be surveyed together).

Task 3 – Geotechnical Investigation

Due to the proximity to the Supplemental Water Project alignment, the existing project Geotechnical Report can be used for design recommendations for the Golden State Water Company Turnout. However, a separate geotechnical analysis will be required for design of the Woodlands Mutual Water Company turnout and the Rural Water Company turnout. Fugro will perform a single hand-auger boring to explore the soil conditions at each site and prepare an addendum to the existing Supplemental Water Project geotechnical report. The budget for this task assumes that the geotechnical investigation for the two water connections will be performed at the same time, and reported in one addendum.

Task 4 – Concept Design Report

AECOM will prepare a separate concept design report for each turnout to summarize the recommended location and components for the new connection facilities. The reports will include a site layout (30% design), a description of the recommended components for the water systems connection, and a controls narrative. Two copies of the draft report will be provided to NCSD and the respective partner purveyor for review. Two copies of the final concept design report will be provided to NCSD and the respective partner purveyor after receipt of comments.

Tasks 5, 6, & 7 – Plans, Specification, and Opinion of Construction Cost

AECOM will prepare bid documents in the District's standard format, including contract documents and technical specifications. It is assumed that construction will occur with Bid Package #2 of the NCSD Supplemental Water Project, and therefore share technical common specifications and upfront documents. The interconnection designs are anticipated to require six (6) plan sheets each, not including the title and notes sheets. This scope amendment also assumes the three turnouts will be designed at the same time and that the three projects will share similar details, layout, and

operational characteristics. Additional time and/or fee may be required if significant differences between the three projects are discovered.

Plans, technical specifications, and an opinion of probable construction cost will be submitted at the 90-percent, and final design levels. For each turnout, two sets each will be provided to the NCSD and the respective partner purveyor for review and comments. The final plans and specifications will be submitted as part of the Supplemental Water Project Bid Package #2 final design submittal.

The effort for Task Groups 3, 4, & 5 have been budgeted separately, but assuming some of the work will be shared as described above. The table below summarizes the budget for each, and compares the costs for three scenarios: the work is performed simultaneously as proposed herein, or the work is performed separately, but is bid with the Supplemental Water Project Bid Package #2.

	Budget as proposed	Budget if performed separately
Task Group 3 – NCSD-GSWC Turnout Design	\$27,014	\$31,182
Task Group 4 – NCSD-WMWC Turnout Design	\$30,399	\$35,554
Task Group 5 – RWC-GSWC Turnout Design	\$30,949	\$35,986

Task Groups 3, 4, & 5 Schedule – The following table summarizes the proposed schedule for this work.

Deliverable / Task	Schedule
Schedule kickoff meetings	1 week from NTP
Survey base map & Draft Geotech. Report	4 weeks from NTP
Draft CDR	4 weeks from base map and draft geotech. report
Review of draft CDR (NCSD and partner purveyor)	3 weeks
Final CDR	3 weeks after receiving comments from NCSD and partner purveyor
90% plans, specs, and cost opinion	4 weeks from Final CDR submittal
Final plans, specs, and cost opinion	With Final Bid Package #2 submittal, currently scheduled for 4/27/12

Overall Schedule

The schedule for the Project design phase is based on producing plans and specifications in time to go out to bid immediately following a successful assessment vote, currently planned for late April 2012. AECOM will continue to work closely with District staff as the Project develops. The current design schedule is attached. Pending authorization of the work described herein, AECOM will work with District staff to update the design schedule and coordinate the priority order of work.



Budget

AECOM will perform this work on a Time and Materials basis, with a budget not to exceed \$132,091 unless prior authorization is granted in writing by the District. See the attached spreadsheet for a breakdown of fees.

If you have questions or comments, please contact me to discuss. We look forward to continuing work with you and completing the design of this important project.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael K. Nuhley". The signature is written in a cursive style with a long, sweeping flourish at the end.

Michael K. Nuhley, PE
Project Manager

Attachments: Fee Summary

Estimated Engineering Fee

**Supplemental Water Project
Scope Amendment #13 - Optional Design Tasks**

Nipomo Community Services District

Task Description	Personnel Hours					Total Hours	Budget				
	Principal	Senior Engineer II	Associate Engineer	Design CAD Operator	Administrative		Labor	Non-Labor Fee	Subconsultants	Total Non-Labor	Total
Task Group 1 - Hydraulic Modeling: Evaluate Potential Impact of RWC Connection											
Task 101. Observe fire flow tests (performed by NCSD staff)			6			6	\$ 780	\$ 62		\$ 62	\$ 842
Task 102. Model calibration	1		12			13	\$ 1,770	\$ 142		\$ 142	\$ 1,912
Task 103. Develop scenarios			2			2	\$ 260	\$ 21		\$ 21	\$ 281
Task 104. Model scenarios and evaluate			12			12	\$ 1,560	\$ 125		\$ 125	\$ 1,685
Task 105. QC review	2					2	\$ 420	\$ 34		\$ 34	\$ 454
Task 106. Meeting or conference call with District staff	2		2			4	\$ 680	\$ 54		\$ 54	\$ 734
Task 107. Draft Technical Memorandum	1		10			11	\$ 1,510	\$ 121		\$ 121	\$ 1,631
Task 108. Final Technical Memorandum	1		3			4	\$ 600	\$ 48		\$ 48	\$ 648
Subtotal	7	-	47	-	-	54	\$ 7,580	\$ 606	\$ -	\$ 606	\$ 8,186
Task Group 2 - Hydraulic Modeling: Evaluate Operating Impacts of Delivering Water to Partners (O&M \$)											
Task 201. Review and update existing model		6	24			30	\$ 4,110	\$ 329		\$ 329	\$ 4,439
Task 202. Identify data gaps, collect, and correct	8	12	32			52	\$ 7,820	\$ 626		\$ 626	\$ 8,446
Task 203. Meeting with District staff	2		2			4	\$ 680	\$ 54		\$ 54	\$ 734
Task 204. Develop Scenarios	2	4	6			12	\$ 1,860	\$ 149		\$ 149	\$ 2,009
Task 205. Model scenarios and evaluate		10	40	16		66	\$ 8,610	\$ 689		\$ 689	\$ 9,299
Task 206. QC Review	4					4	\$ 840	\$ 67		\$ 67	\$ 907
Task 207. Meeting with District staff	2		2			4	\$ 680	\$ 54		\$ 54	\$ 734
Task 208. Draft Technical Memorandum	5	6	24	8	8	51	\$ 6,640	\$ 531		\$ 531	\$ 7,171
Task 209. Final Technical Memorandum		2	8		4	14	\$ 1,670	\$ 134		\$ 134	\$ 1,804
Subtotal	23	40	138	24	12	237	\$ 32,910	\$ 2,633	\$ -	\$ 2,633	\$ 35,543
Task Group 3 - NCSD-GSWC Turnout Design											
Task 301. Kickoff Meeting	2		4			6	\$ 940	\$ 75		\$ 75	\$ 1,015
Task 302. Topographical Survey			1	3		4	\$ 460	\$ 37	\$ 2,530	\$ 2,567	\$ 3,027
Task 303. Draft Concept Design Report	1	2	16	8	2	29	\$ 3,650	\$ 292		\$ 292	\$ 3,942
Task 304. Final Concept Design Report	1	1	8	4		14	\$ 1,855	\$ 148		\$ 148	\$ 2,003
Task 305. Plans (6 sheets)	8	10	20	50	4	92	\$ 11,730	\$ 938		\$ 938	\$ 12,668
Task 306. Specifications	1	2	14			17	\$ 2,360	\$ 189		\$ 189	\$ 2,549
Task 307. Opinion of Probable Construction Cost	1	1	10			12	\$ 1,675	\$ 134		\$ 134	\$ 1,809
Subtotal	14	16	73	65	6	174	\$ 22,670	\$ 1,814	\$ 2,530	\$ 4,344	\$ 27,014
Task Group 4 - NCSD-WMWC Turnout Design											
Task 401. Kickoff Meeting	2		4			6	\$ 940	\$ 75		\$ 75	\$ 1,015
Task 402. Topographical Survey			1	3		4	\$ 460	\$ 37	\$ 2,750	\$ 2,787	\$ 3,247

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Estimated Engineering Fee

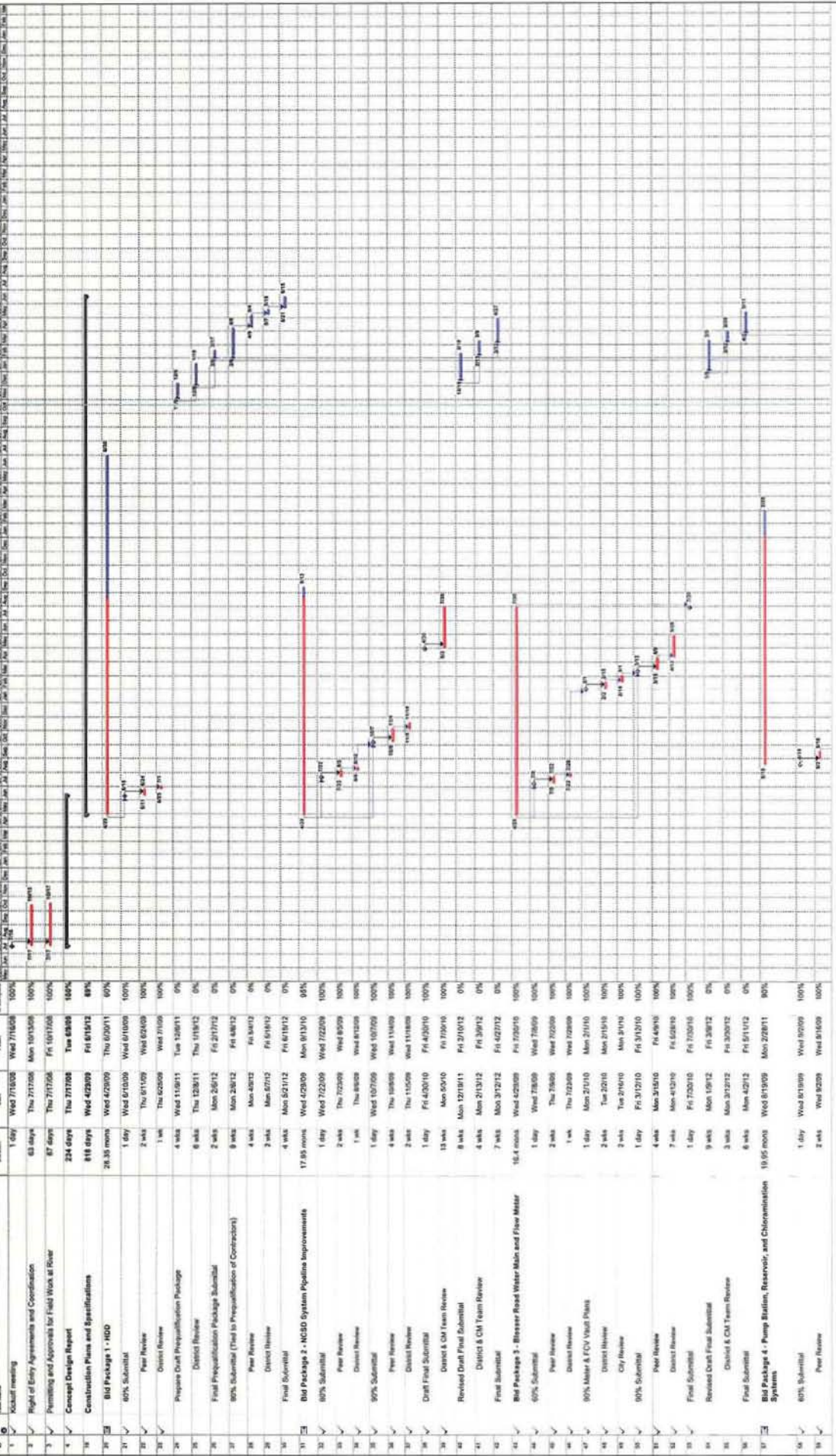
**Supplemental Water Project
Scope Amendment #13 - Optional Design Tasks**

Nipomo Community Services District

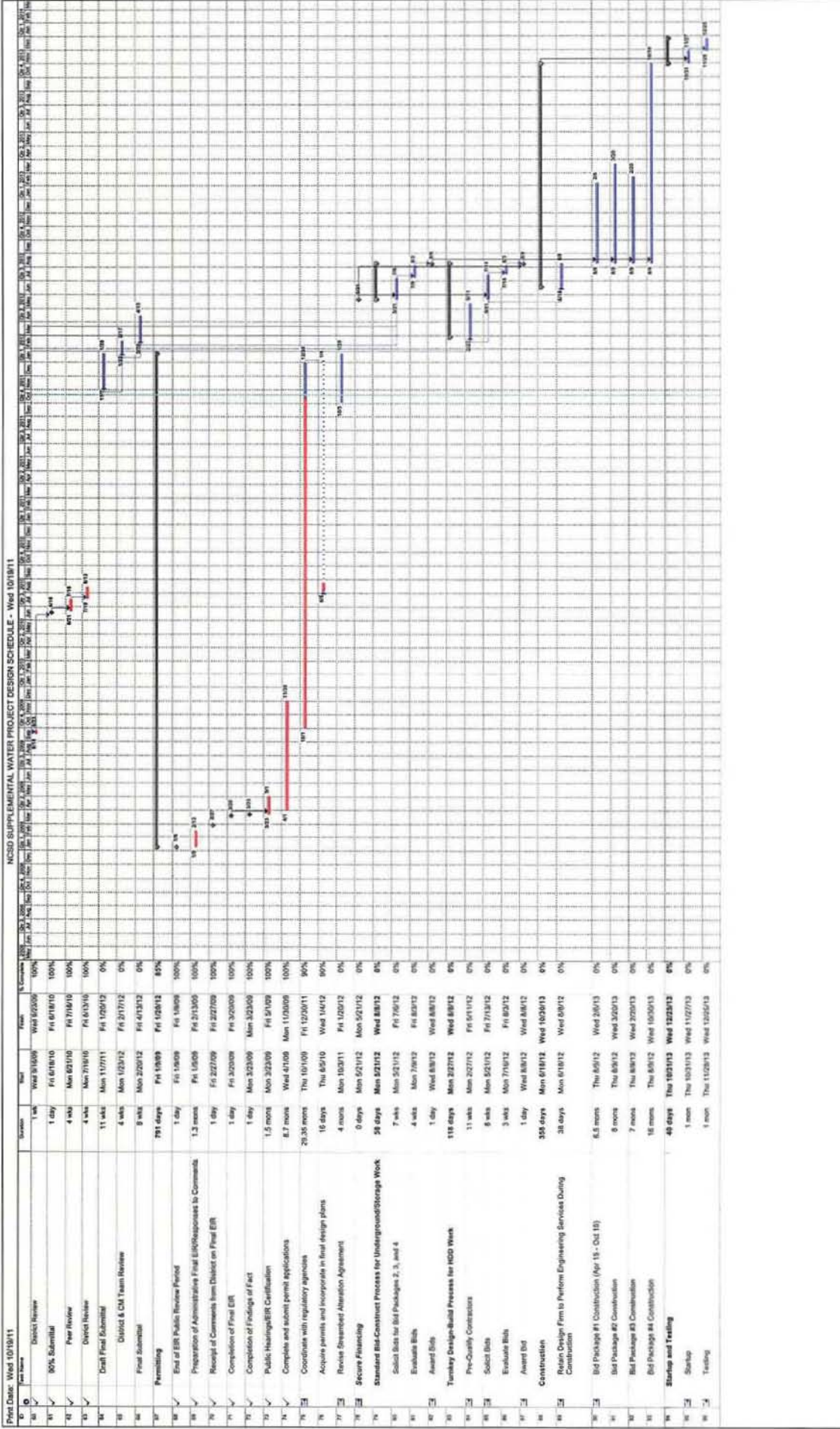
Task Description	Personnel Hours					Budget					
	Principal	Senior Engineer II	Associate Engineer	Design CAD Operator	Administrative	Total Hours	Labor	Non-Labor Fee	Subconsultants	Total Non-Labor	Total
Task 403. Geotechnical Investigation			1			1	\$ 130	\$ 10	\$ 3,025	\$ 3,035	\$ 3,165
Task 404. Draft Concept Design Report	1	2	16	8	2	29	\$ 3,650	\$ 292		\$ 292	\$ 3,942
Task 405. Final Concept Design Report	1	1	8	4		14	\$ 1,855	\$ 148		\$ 148	\$ 2,003
Task 406. Plans (6 sheets)	8	10	20	50	4	92	\$ 11,730	\$ 938		\$ 938	\$ 12,668
Task 407. Specifications	1	2	14			17	\$ 2,360	\$ 189		\$ 189	\$ 2,549
Task 408. Opinion of Probable Construction Cost	1	1	10			12	\$ 1,675	\$ 134		\$ 134	\$ 1,809
Subtotal	14	16	74	65	6	175	\$ 22,800	\$ 1,824	\$ 5,775	\$ 7,599	\$ 30,399
Task Group 5 - NCSD-RWC Turnout Design											
Task 501. Kickoff Meeting	2		4			6	\$ 940	\$ 75		\$ 75	\$ 1,015
Task 502. Topographical Survey			1	3		4	\$ 460	\$ 37	\$ 3,300	\$ 3,337	\$ 3,797
Task 503. Geotechnical Investigation			1			1	\$ 130	\$ 10	\$ 3,025	\$ 3,035	\$ 3,165
Task 504. Draft Concept Design Report	1	2	16	8	2	29	\$ 3,650	\$ 292		\$ 292	\$ 3,942
Task 505. Final Concept Design Report	1	1	8	4		14	\$ 1,855	\$ 148		\$ 148	\$ 2,003
Task 506. Plans (6 sheets)	8	10	20	50	4	92	\$ 11,730	\$ 938		\$ 938	\$ 12,668
Task 507. Specifications	1	2	14			17	\$ 2,360	\$ 189		\$ 189	\$ 2,549
Task 508. Opinion of Probable Construction Cost	1	1	10			12	\$ 1,675	\$ 134		\$ 134	\$ 1,809
Subtotal	14	16	74	65	6	175	\$ 22,800	\$ 1,824	\$ 6,325	\$ 8,149	\$ 30,949
Total	72	88	406	219	30	815	\$ 108,760	\$ 8,701	\$ 14,630	\$ 23,331	\$ 132,091

Personnel Category	\$/HR
Principal	\$210.00
Senior Engineer II	\$165.00
Associate Engineer	\$130.00
Design CAD Operator	\$110.00
Administrative	\$75.00

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NCSD SUPPLEMENTAL WATER PROJECT DESIGN SCHEDULE - Wed 10/18/11



TO: MICHAEL S. LEBRUN *MSL*
GENERAL MANAGER

FROM: PETER V. SEVCIK *P.V.S.*
DISTRICT ENGINEER

DATE: OCTOBER 19, 2011

**AGENDA ITEM
E-2
OCTOBER 26, 2011**

**AUTHORIZE TASK ORDER FOR PROCUREMENT AND
CONSTRUCTION PHASE SERVICES FOR SUPERVISORY CONTROL
AND DATA ACQUISITION SYSTEM UPGRADE PROJECT**

ITEM

Authorize Task Order for Supervisory Control and Data Acquisition (SCADA) System Upgrade Project Procurement and Construction Phase Services with AECOM in the amount of \$41,373 and authorize change order contingency in the amount of \$4,000 [RECOMMEND BY MOTION AND ROLL CALL VOTE APPROVE EXECUTION OF TASK ORDER WITH AECOM IN THE AMOUNT OF \$41,373 AND AUTHORIZE CHANGE ORDER CONTINGENCY IN THE AMOUNT OF \$4,000].

BACKGROUND

The District utilizes IPAACtm, a proprietary SCADA system human machine interface (HMI), to remotely monitor the operation of the District's water supply wells, water storage tanks, sanitary sewer lift stations and wastewater treatment plants. The system utilizes an interface that lists Inputs/Outputs in a tabular format only (not graphical), provides limited control capability, and has limited ability for historical data storage and retrieval. Changes to the system typically require custom programming that must be outsourced. The District recognized the limitations of the existing SCADA system and began developing a plan in late 2009 to upgrade the system.

AECOM was selected by the District through competitive proposal processes to provide design services for both the Supplemental Water Project and the Southland WWTF Upgrade Project. The District subsequently contracted with AECOM to prepare the technical requirements for the SCADA Upgrade Project in order to facilitate the overall integration of the Supplemental Water Project and the Southland WWTF Upgrade into the District's SCADA Upgrade Project. The technical requirements were incorporated into a Request for Proposals (RFP) for the procurement of system integrator services to implement the SCADA Upgrade Project. The Board authorized the circulation of the RFP at the September 28, 2011 Board meeting.

Staff requested that AECOM provide a proposal for procurement and construction phase services for the SCADA Upgrade Project. AECOM submitted the attached proposal to perform the work for a not to exceed amount of \$41,373. AECOM is uniquely qualified to efficiently assist the District with procurement and construction phase services for the SCADA Upgrade Project due to their experience with the design phase of the project as well as their experience designing the Supplemental Water Project and the Southland WWTF Upgrade Project.

FISCAL IMPACT

The FY 11-12 Budget includes \$300,000 for the SCADA Upgrade Project. The funding is allocated as follows:

Fund Number	Fund Description	Budgeted Fund Amount
Fund 700	Water Fund	\$140,000
Fund 710	Town Sewer Fund	\$120,000
Fund 830	Blacklake Sewer Funded Replacement	\$40,000

AGENDA ITEM E-2
OCTOBER 26, 2011

The proposed task order will be funded from the project budget. Actual project implementation cost will depend on the responses received to the District's RFP.

STRATEGIC PLAN

Strategic Plan Goal 1.3 – Upgrade and Maintain Water Distribution and Storage Works
Strategic Plan Goal 2.1 – Efficiently Operate Collection, Treatment and Disposal Works

RECOMMENDATION

Staff recommends that the Board, by motion and roll call vote:

1. Authorize Task Order for SCADA Upgrade Project Procurement and Construction Phase Services with AECOM in the amount of \$41,373 and authorize General Manager to execute Task Order.
2. Authorize the General Manager to issue Change Orders to the Task Order with an aggregate total amount not to exceed \$4000.

ATTACHMENTS

AECOM SCADA Upgrade Project Procurement and Construction Phase Proposal Dated October 18, 2011



AECOM
1194 Pacific Street
Suite 204
San Luis Obispo CA 93401
www.aecom.com

805 542 9840 tel
805 542 9990 fax

October 18, 2011

Mr. Michael LeBrun, PE
General Manager
Nipomo Community Services District
PO Box 326
Nipomo, CA 93444

Dear Mr. LeBrun,

SCADA Upgrade Project - Proposal for RFP and Construction Phase Services

Nipomo Community Services District (NCSD) recently released an Request for Proposals (RFP) for SCADA System Upgrade Services. AECOM has prepared this scope and budget to assist the District during the proposal and implementation phases of the construction. Having worked closely with NCSD staff on the design phase of the Project, AECOM is uniquely qualified to efficiently assist NCSD with these services. The proposed scope of work is summarized herein, and the detailed estimated engineering fee is attached.

Task Group 1 – Proposal Phase Services

Task Group 1 is proposed to assist NCSD staff with commissioning effective proposals, and evaluating the proposals received. The following tasks are recommended:

1. Mandatory pre-proposal conference - AECOM will attend and participate in the pre-proposal conference. The purpose of the pre-proposal conference is to provide sufficient detail on the Project to get more accurate and competitive proposals.
2. Request for Information (RFI) response - AECOM will provide written responses to questions and/or provide clarification during proposal phase.
3. Proposal Evaluation – AECOM will assist staff in identifying and evaluating the two (2) most qualified proposers and prepare a letter to the District recommending the most qualified proposer. We will also assist District staff in contacting and interviewing the two candidates' references.

Task Group 2 – Shop Drawing Submittals Review

AECOM will review and respond to shop drawing submittals to evaluate the proposed materials for compliance with the contract documents.

1. AECOM will review shop drawing submittals. Estimated number of submittals are as follows, based on the design documents.
 - a) 10 "original" sites, two (2) submittals per each; total of 20 submittals.
 - b) 17 "duplicate" sites, one (1) submittal per each; total of 17 submittals.
 - c) Two (2) SCADA hardware submittals.

- d) One (1) SCADA software submittal.

Task Group 3 – Workshop and Testing

The design documents require a workshop prior to the SCADA software submittal and testing of the equipment at various stages throughout the project. The intent of the workshop is to ensure the NCSD receives the desired interfaces for the SCADA system. The testing helps ensure the NCSD receives a full and working SCADA System. The systems are tested individually at the factory, in the field after wiring each site, and at the end of the Project as a full system.

1. AECOM will attend the workshop at the NCSD office prior to SCADA software submittal.
2. Testing will consist of the following:
 - a) Factory Acceptance Test at a Contractor's facility.
 - b) Field Operational Test. This proposal includes time for operational testing at three sites, which is assumed to require three trips. A comprehensive checklist will be developed for the site operational testing. AECOM is available to participate in additional site operational testing if required, at an added time and materials basis.
 - c) Acceptance Test (21 days). We anticipate to have three (3) visits to NCSD during the test. We anticipate a site visit at the beginning and end of the project, with one interim site visit with timing to be determined as required.

Optional Task

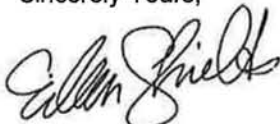
If requested, AECOM will attend the NCSD training sessions on a time-and-materials basis. The totals number of trips will be coordinated with the NCSD.

Budget

AECOM will perform this work on a Time and Materials basis, with a budget not to exceed \$41,373 unless prior authorization is granted in writing by the NCSD. See the attached spreadsheet for a breakdown of fees. Travel costs, including mileage, accommodations and subsistence, and air fare have been budgeted under "Direct Project Costs" and will be expensed per the attached fee schedule.

Please feel free to contact us if you have any questions. We look forward to continuing work with NCSD through the completion of this important project.

Sincerely Yours,



Eileen Shields, PE
Project Manager



Efreem Sorkin, PE
Project Engineer

Attachments: Engineering Fee Estimate, 2011 Fee Schedule

Estimated Engineering Fee

**NCSD SCADA Project
Proposal and Construction Support**

Nipomo Community Services District

Task Description	Personnel Hours				Budget				
	Senior Engineer	Associate Engineer	Clerical	Total Hours	Labor	Direct Project Expenses	Non Labor Fee	Total Non-Labor	Total
Task Group 1 - Proposal Phase Services									
Attend pre-proposal conference	8	2	1	11	\$ 1,751	\$ 360	\$ 140	\$ 500	\$ 2,251
Pre-proposal RFI responses	4	2	1	7	\$ 1,043		\$ 83	\$ 83	\$ 1,126
Proposal evaluation	8	2	1	11	\$ 1,751	\$ 360	\$ 140	\$ 500	\$ 2,251
Subtotal	20	6	3	29	\$ 4,545	\$ 720	\$ 364	\$ 1,084	\$ 5,629
Task Group 2 - Submittal Review									
Remote sites shop drawings review (2 submittals each for 10 sites, one submittal each for 17 sites)	80	4	8	92	\$ 15,280		\$ 1,222	\$ 1,222	\$ 16,502
SCADA submittal review	8		1	9	\$ 1,491		\$ 119	\$ 119	\$ 1,610
Subtotal	88	4	9	101	\$ 16,771	\$ -	\$ 1,342	\$ 1,342	\$ 18,113
Task Group 3 - Workshop and Testing									
Workshop	8		1	9	\$ 1,491	\$ 360	\$ 119	\$ 479	\$ 1,970
Factory Acceptance Test (2 days)	16		2	18	\$ 2,982	\$ 700	\$ 239	\$ 939	\$ 3,921
Operational Testing (3 site testings, 3 trips)	24		3	27	\$ 4,473	\$ 1,080	\$ 358	\$ 1,438	\$ 5,911
Acceptance Testing (3 visits)	24		2	26	\$ 4,398	\$ 1,080	\$ 352	\$ 1,432	\$ 5,830
Subtotal	72	-	8	80	\$ 13,344	\$ 3,220	\$ 1,068	\$ 4,288	\$ 17,632
Total	180	10	20	210	\$ 34,660	\$ 3,940	\$ 2,773	\$ 6,713	\$ 41,373

Personnel Category	\$/HR
Senior Engineer	\$177.00
Associate Engineer	\$130.00
Clerical	\$75.00

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