

NIPOMO COMMUNITY SERVICES DISTRICT

MONDAY, March 7, 2011

9:00 A. M.

SPECIAL MEETING NOTICE & AGENDA **SOUTHLAND WWTF UPGRADE PROJECT COMMITTEE**

COMMITTEE MEMBERS

MICHAEL WINN, CHAIR
JAMES HARRISON, MEMBER

PRINCIPAL STAFF

MICHAEL LEBRUN, INTERIM GENERAL MANAGER
LISA BOGNUDA, ASSIST. GENERAL MANAGER
JON SEITZ, GENERAL COUNSEL
PETER SEVCIK, DISTRICT ENGINEER

MEETING LOCATION

District Board Room
148 S. Wilson Street
Nipomo, California

1. **CALL TO ORDER, ROLL CALL & FLAG SALUTE**
2. **REVIEW STATUS OF SOUTHLAND WWTF UPGRADE PROJECT**
ACTION RECOMMENDED: Receive Report
3. **AECOM SCOPE AMENDMENT #4 FOR THE SOUTHLAND WWTF PHASE 1 UPGRADE PROJECT**
ACTION RECOMMENDED: Forward Recommendation to the Board
4. **FUGRO TASK ORDER TO UPDATE EFFLUENT DISPOSAL MODEL FOR THE SOUTHLAND WWTF**
ACTION RECOMMENDED: Forward Recommendation to the Board
5. **ADJOURN**

*** End Special Meeting Notice ***

TO: MICHAEL LEBRUN
INTERIM GENERAL MANAGER

FROM: PETER SEVCIK
DISTRICT ENGINEER

DATE: MARCH 3, 2011

AGENDA ITEM
2
MARCH 7, 2011

REVIEW STATUS OF SOUTHLAND WWTF UPGRADE PROJECT

ITEM

Review status of Southland WWTF Upgrade Project [Receive Report].

BACKGROUND

Mike Nunley from AECOM is scheduled to summarize the attached Monthly Design Phase Status Report at the Committee Meeting.

Mike Nunley from AECOM is scheduled to present Scope Amendment #4 for the final design of the Phase 1 Project – See Agenda Item 3.

Paul Sorensen from Fugro Consultants Inc. is scheduled to present a Task Order for additional modeling of the groundwater mound at the Southland WWTF – See Agenda Item 4.

Doug Wood and Associates (DWA) is proceeding with preparation of the Draft Environmental Impact Report that is tentatively scheduled to be completed on March 15, 2011. AECOM's schedule includes the updated EIR schedule.

District staff is currently reviewing the Administrative Draft Report of Waste Discharge prepared by AECOM. The draft Report of Waste Discharge is currently scheduled to be submitted to the Central Coast Regional Water Quality Control Board on March 29, 2011.

It should be noted that the Board has already implemented the user rates and capacity charges necessary to fund the proposed Phase 1 project and the District already owns the land for construction for the Phase 1 project. District staff has initiated contact with the CSDA Finance Corporation to discuss obtaining the necessary financing for the project and is also exploring whether the California Infrastructure Bank could provide financing for the project.

STRATEGIC PLAN

Strategic Plan Goal 2.2 – Upgrade and Maintain Collection and Treatment Works
Strategic Plan Goal 2.3 – Select Disposal Solution for Southland Effluent and Implement

RECOMMENDATION

Staff recommends that the Committee receive the project update and ask questions as appropriate.

ATTACHMENT

AECOM March 2011 Southland WWTF Upgrade Phase 1 Project Design Status Report

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Memorandum

To Michael LeBrun, PE, Interim General Manager
Peter Sevcik, PE, District Engineer Page 1

CC Jon Hanlon, Eileen Shields

Subject Southland WWTF Phase 1 Improvements – Design Phase Status Report

From Michael K. Nunley, PE

Date March 2, 2011

The Project Team has completed the following items this month:

1. The administrative draft Report of Waste Discharge, required for the RWQCB permitting, was submitted to District staff for review and comment.
2. AECOM continues work on design documents for the 60% submittal, scheduled for March 9th.

Schedule

The Project Schedule is attached. A baseline was set at the August 4, 2010 based on the District's request. The schedule has been updated to reflect the current project status, and assumes that the work proposed under Scope Amendment #4 (design of additional infiltration basins) is approved.

Budget Status

The Invoice Summary is attached. The Invoice Summary indicates an amount invoiced which is consistent with the work completed to date. The project budget is attached. The project cost opinion has been updated based on the final Concept Design Report

Yours Sincerely,



Michael K. Nunley, PE

Enclosures: Project Schedule
Invoice Summary
Project Budget Summary

Project Budget Summary

2/28/2011

Engineering Services for NCSD - Southland WWTF Upgrade

Nipomo CSD

	Total Budget	Amount Previously Invoiced	Current Invoice Amount	% of Budget Earned to date	% of Work Complete
Task Group 1 - Concept Design Phase	\$242,179.00	\$236,981.02	\$0.00	98%	98%
Task Group 2 - Construction Documents	\$566,856.00	\$119,339.73	\$137,994.84	45%	45%
Task Group 3 - Project Management	\$97,796.00	\$63,022.05	\$67.50	65%	65%
Task Group 4 - Assistance During Bid	\$39,539.00	\$0.00	\$0.00	0%	0%
Task Group 5 - Office Engineering Services	\$147,198.00	\$0.00	\$0.00	0%	0%
Task Group 6 - Amendment 1 Facility MP	\$37,020.00	\$37,131.75	\$0.00	100%	100%
Task Group 7 - Waste Discharge Report	\$30,130.00	\$12,164.04	\$3,025.89	50%	50%
Total	\$1,160,718.00	\$468,638.59	\$141,088.23	53%	53%

Date Printed 3/2/2011

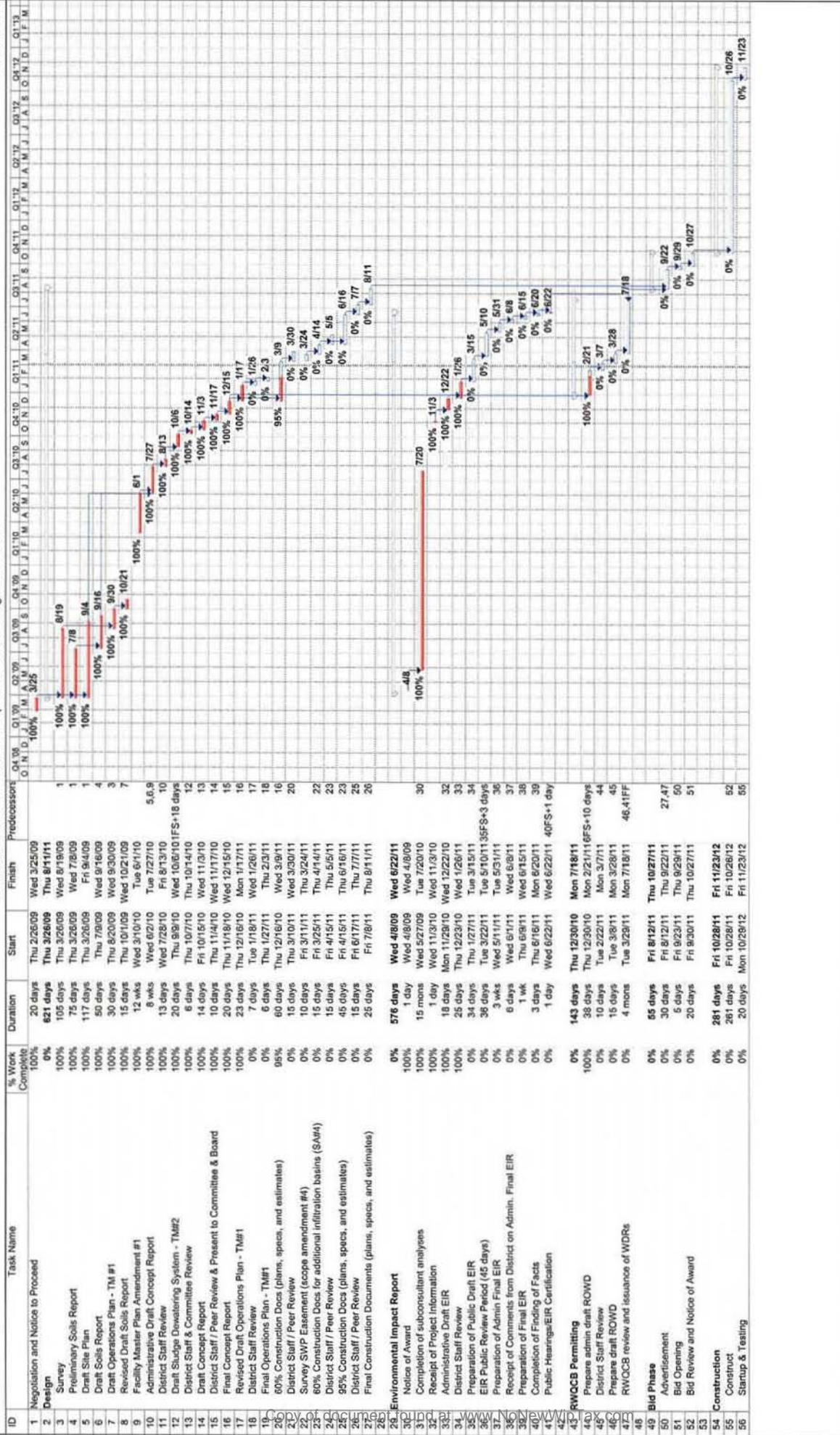
Item	Description	Budgeted Amount Dec 2010 CDR (1)(2)	Updated Amount
1	Influent Pump Station & Flowmeter	\$ 509,400	
2	Spiral Screening System	\$ 352,100	
3	Grit Removal System	\$ 274,000	
4	Extended Aeration System	\$ 1,268,700	
5	Secondary Clarifier	\$ 1,767,000	
6	Sludge Thickening System	\$ 251,800	
7	Emergency Holding Basin	\$ 80,000	
8	Sludge Drying Beds	\$ 787,200	
9	Controls & Blower Building	\$ 251,100	
10	Non-Potable Plant Water System	\$ 226,400	
11	Site Piping	\$ 651,500	
12	Instrumentation & Controls	\$ 307,500	
13	Electrical	\$ 398,700	
	Construction Subtotal	\$ 7,125,000	
11	Construction Contingency	\$ 1,781,250 (3)	
	Construction Total	\$ 8,906,250	
12	Environmental Impact Report	\$ 93,400	
13	Design-Phase Engineering	\$ 1,160,718 (4)	
14	Construction Management	\$ 1,068,750 (5)	
15	Environmental Mitigation & Monitoring Allowance	\$ 142,500 (6)	
16	Permitting Fees Allowance	\$ 5,000 (7)	
17	Non-Construction Contingency	\$ 618,000 (8)	
	WWTF Phase 1 Improvements Estimated Total	\$ 11,995,000 (9)	

Notes:

- (1) ENR CCI (Dec 2010) = 8952
- (2) Costs are escalated by 2% per year to midpoint of construction (estimated 3/12/2012)
- (3) Construction contingency is estimated at 25% of construction subtotal
- (4) Design-Phase engineering costs are a sum based on original contract (May 2009), and scope amendments #1 (Jun 2009), #2 (Mar 2010), and #3 (Sept 2010)
- (5) To be updated by CM team; Construction Management costs estimated at 15% of construction subtotal.
- (6) Environmental mitigation and monitoring costs are estimated at 2% of construction subtotal and provided as an allowance. These costs will be further developed with the EIR process.
- (7) Permitting fees are estimated and provided as an allowance. These costs will be further developed with the EIR process.
- (8) Non-construction contingency is estimated at 25% of the non-construction total (line items 12 through 16).
- (9) Town Sewer System Financial Plan, August 24, 2007, assumes \$12 million project costs to be funded as follows:
 - \$8.9 million from new long-term debt (\$10.6 million par value)
 - \$2.6 million from Town Sewer Funded Replacement Fund
 - \$0.5 million from Town Sewer Capital Improvement Fund

Southland WWTF Phase 1 Improvements Design Schedule

Wed 3/2/11



Project: Southland Design 8 03 09
Date: Wed 3/2/11

Task: Progress

Milestones: Summary

Baselines: Baseline

External Tasks: Group by Summary

Page 1

TO: MICHAEL LEBRUN *ML*
INTERIM GENERAL MANAGER

FROM: PETER SEVCIK
DISTRICT ENGINEER

DATE: MARCH 3, 2011

AGENDA ITEM
3
MARCH 7, 2011

AECOM SCOPE AMENDMENT # 4 FOR THE SOUTHLAND WWTF PHASE 1 IMPROVEMENT PROJECT

ITEM

Consider Scope Amendment #4 with AECOM for engineering services in the amount of \$18,239 to develop design for additive bid alternate for increased on-site effluent disposal for the Southland WWTF Phase 1 Improvement Project [FORWARD RECOMMENDATION TO THE BOARD].

BACKGROUND

The Board selected AECOM to provide final engineering design services for Phase 1 of the Southland Wastewater Treatment Facility (WWTF) Improvement Project. The project is based on the January 2009 Southland WWTF Master Plan and August 2010 Southland WWTF Master Plan Amendment #1. The project as currently envisioned involves maintaining the current capacity of 0.9 MGD and includes a influent lift station, influent screening system, grit removal system, Biolac® cell in Pond 1, a clarifier, gravity belt thickener, two concrete lined sludge drying beds, controls & blower building, and a non-potable plant water system. The Phase 1 project does not currently include any additional disposal facilities.

The Southland WWTF Master Plan includes the addition of 3 new infiltration basins that would potentially provide some additional disposal capacity as well as wet weather storage when the District develops off-site disposal capacity. Constructing the additional infiltration basins as part of the Phase 1 project would allow the District to spread out the effluent disposal area and potentially provide some additional disposal capacity before the District developed an off-site disposal option. Since the Phase 1 improvement project involves major earthwork at the plant site that will require extensive environmental monitoring and to take advantage of the current favorable bid climate, staff proposes to have AECOM design the 3 new infiltration basins as part of the Phase 1 design effort and bid the additional infiltration basins as an additive bid alternate.

AECOM has provided the attached Scope Amendment #4 that details all of the required work tasks and their associated costs. 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 \$18,239.

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. The design is still at a preliminary level, the EIR has not been completed, and the permitting process through the Regional Water Quality Control Board has yet to be initiated.

AGENDA ITEM 3
MARCH 3, 2011

FISCAL IMPACT

As of February 28, 2011, AECOM has billed the District for \$468,639 for design services for the project. Execution of the proposed amendment would increase the not-to-exceed expenditure limit from \$1,160,718 to \$1,178,957. With the proposed amendment, the remaining contract amount to be billed will be \$710,318. The FY 10-11 Budget includes \$2,000,000 in Town Sewer Capacity Charges Fund (Fund #710) for the project. Thus, sufficient funding is available in the current fiscal year.

STRATEGIC PLAN

Strategic Plan Goal 2.2 – Upgrade and Maintain Collection and Treatment Works
Strategic Plan Goal 2.3 – Select Disposal Solution for Southland Effluent and Implement

RECOMMENDATION

Staff recommends that the Committee receive AECOM's presentation, ask questions as appropriate and forward a recommendation to the Board to authorize the General Manager to execute Amendment #4 to the existing Southland WWTF Phase 1 Improvement Project Final Design Agreement with AECOM in the amount of \$18,239.

ATTACHMENT

AECOM Budget Revision Request Dated March 2, 2011



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

805 542 9840 tel
805 542 9990 fax

March 2, 2010

Mr. Michael LeBrun
Interim General Manager
Nipomo Community Services District
148 S. Wilson Avenue
Nipomo, CA 93444

Dear Mr. LeBrun

Scope Amendment 4 – Design of Additional Infiltration Basins for Bid Alternate

As described in the Hydrogeological Characterization for the Southland Wastewater Treatment Facility (Fugro West, Inc., July 2007), "a perched effluent mound has formed beneath the WWTF that is growing vertically at the rate of approximately one foot per year". Subsequent studies further evaluated the existing disposal capacity, the potential relationship of discharge with nearby Nipomo Creek, the potential for extraction from the mound, and other considerations. Fugro's supplemental groundwater analysis (memorandum dated June 30, 2008), estimated that the existing infiltration basins can percolate an average of 0.57 million gallons per day (MGD) without increasing the size of the perched mound.

Given that the current average day flow to the WWTF is approximately 0.56 MGD, the plant is approaching the apparent capacity beyond which will increase the height of the subsurface mound. The District is investigating additional effluent disposal and reuse opportunities for use in the future as flows to the facility increase. However, investigation, planning, design, and construction could take several years.

This scope amendment proposes design of additional onsite infiltration basins as an alternate bid item with the Phase 1 Facility Improvements contract. The property can accommodate approximately three additional infiltrations basins of a size comparable to the existing. This would allow the District to control where they infiltrate the water within the plant boundaries, but will not increase the total assimilative capacity for the site. Additional survey is needed to determine the exact location of the State Water Pipeline easement that runs through the property and a Preliminary Title Report is recommended to identify recorded property restrictions.

Task Group 1 – Survey and Mapping

AECOM's subconsultant, Garing, Taylor and Associates (GTA), will perform a boundary survey to locate the State Water Pipeline Easement. This work involves locating monuments on Highway 101, and requires a permit from CalTrans. GTA will also acquire a preliminary title report (PTR) to identify recorded property restrictions. Time has been included in the budget to map up to three (3) additional easements or right-of-ways identified through the PTR, assuming up to 4 hours per easement.

Task Group 2 – Construction Documents

AECOM will develop construction documents including plans, specifications, and an opinion of probable construction cost. A set of 60% plan sheets and specifications specific to the infiltration basins will be provided to supplement the existing design, along with the 60% opinion of construction cost to the District for review and comment. For budgeting purposes, it is assumed that 2 civil plan



sheets will be provided with 1 cross-section through the basins. Subsequent revisions will be provided with the 95% and final submittals for the Phase 1 improvements.

Schedule

The following table summarizes the schedule for the work proposed herein. This schedule assumes three (3) weeks for review and comment from District staff and peer review team.

Task	Time from NTP
Survey scheduled	1 week
Base map developed	2 weeks
60% submittal	5 weeks

It is estimated that this additional work will delay the final design submittal by approximately 8 weeks. The schedule provided with the March status report assumes that this work is approved at the March 9, 2011 Board of Directors meeting.

Budget

See the attached spreadsheet for a breakdown of fees. AECOM will perform this work on a Time and Materials basis, with a budget not to exceed \$18,239 unless prior authorization is granted in writing by the District.

If you have questions or comments, please contact me to discuss. We look forward to working with you on this critical planning step, and completing the design of this important project.

Sincerely,

Michael K. Nunley, PE
Project Manager

Attachments:

Fee Summary

Project Budget

**Southland WWTF Improvements - Phase 1
Scope Amendment #4 - Infiltration Basins**

DRAFT

Nipomo Community Services District

Task Description	Personnel Hours					Budget					
	Principal	Senior Engineer II	Associate Engineer	Design CADD Operator	Administrative	Total Hours	Labor	Non-Labor Fee	Subconsultants	Total Non-Labor	Total
Task Group 1 - Survey and Mapping											
Boundary survey for SWP easement & PTR			4			4	\$ 500	\$ 40	\$ 7,337	\$ 7,377	\$ 7,877
						-	\$ -			\$ -	\$ -
Subtotal	-	-	4	-	-	4	\$ 500	\$ 40	\$ 7,337	\$ 7,377	\$ 7,877
Task Group 2 - Construction Documents											
60% Plans, Specifications, and Opinion of Cost	4	10	18	24	2	58	\$ 7,314	\$ 585		\$ 585	\$ 7,899
95% Plans, Specifications, and Opinion of Cost	1		6	4		11	\$ 1,370	\$ 110		\$ 110	\$ 1,480
Final Plans, Specifications, and Opinion of Cost	1		4	2		7	\$ 910	\$ 73		\$ 73	\$ 983
Subtotal	6	10	28	30	2	76	\$ 9,594	\$ 768	\$ -	\$ 768	\$ 10,362
Total	6	10	32	30	2	80	\$ 10,094	\$ 808	\$ 7,337	\$ 8,145	\$ 18,239

Personnel Category	\$/HR
Principal	\$200.00
Senior Engineer II	\$160.00
Associate Engineer	\$125.00
Design CADD Operator	\$105.00
Administrative	72



*Civil Engineering
Surveying
Project Development*

March 2, 2011

Ms. Eileen Shields, P.E.
AECOM
1194 Pacific Street, Suite 204
San Luis Obispo, Ca. 93401

Re: Nipomo Southland WWTF - Proposal for Additional Survey Services

Dear Eileen:

Thank you for requesting a proposal from Garing Taylor & Associates for additional surveying services on your project with NCSO. We look forward to working with you.

We understand you want to pinpoint the location of the existing State Water utility easement as it crosses the project site. To do this, we will need to obtain a permit from Cal Trans and survey the centerline of HWY 101. There are three monuments that date to the 1950's and were recorded in the mid 1980's. We will need to find at least two of these monuments to pinpoint the location of the easement. Based on this information, we can offer the following services:

1. Easement Survey

GTA will perform a field survey to recover the location of existing monuments and use this information to determine the precise location of the existing State Water Transmission Easement. We will show this information of the existing AutoCad file for the project.

Fixed Fee: \$ 4,800.00

2. Additional Easement Evaluation

Based on a Preliminary Title Report that will be provided, GTA will plot up to an additional three easements on the base map. Our fee estimate is based on 12 total hours of time at \$110.00/hr.

Estimated Fee: \$ 1,320.00

Exclusions

1. Our fee quotation assumes that at least two of the existing three HWY 101 centerline monuments can be found.
2. Our fee quotation does not include a preliminary title report. A preliminary title report with an engineer's supplement can be obtained for an additional fee of approximately \$ 550.00.

Ms. Eileen Shields, P.E.
March 2, 2011
page 2

TERMS OF SERVICE AND COMPENSATION

You will be billed monthly, with payment being due and payable upon your receipt of our billing invoice.

If this proposal is acceptable and you agree with the terms and conditions, please initiate a purchase order for the work. This proposal shall be valid for 60 days from the date hereof.

Once again, thank you for requesting a proposal from Garing Taylor & Associates.

Sincerely;
Garing Taylor & Associates



Jeffrey J. Emrick, P.E., AIA
CEO

ACCEPTED

I have read the above, and the attached Exhibit A - Standard Provisions of Agreement (10/1/06 revision) incorporated herein by reference, and agree to the terms and conditions set forth in this Proposal.

CLIENT:

_____ for AECOM

_____ Date

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TO: MICHAEL LEBRUN ^{MSL}
INTERIM GENERAL MANAGER

FROM: PETER SEVCIK
DISTRICT ENGINEER

DATE: MARCH 3, 2011

AGENDA ITEM
4
MARCH 7, 2011

**FUGRO TASK ORDER TO UPDATE
EFFLUENT DISPOSAL MODEL FOR THE SOUTHLAND WWTF**

ITEM

Consider Task Order with Fugro Consultants Inc. for professional services in the amount of \$16,000 for modeling of the groundwater mound at the Southland Wastewater Treatment Facility [FORWARD RECOMMENDATION TO THE BOARD].

BACKGROUND

In 2008, Fugro performed an evaluation of the District's existing infiltration basins at the Southland WWTF and determined that a mound of effluent was developing beneath the plant site. Further investigation revealed that an aquitard beneath the plant site was limiting the downward migration of effluent. Modeling work performed by Fugro at the time indicated that the District could continue to dispose of effluent at a rate of approximately .57 mgd without causing the effluent mound to increase significantly. The District then began to explore several off-site disposal options but has not yet identified a preferred option.

The Southland WWTF Master Plan includes the addition of 3 new infiltration basins that would potentially provide some additional disposal capacity as well as wet weather storage when the District develops off-site disposal capacity. Constructing the additional infiltration basins as part of the Southland WWTF Phase 1 project would allow the District to spread out the effluent disposal area and potentially provide some capacity before the District developed an off-site disposal option. Updating the groundwater model previously developed for the plant site would allow the District to assess the potential impacts and possible positive benefits of expanding the infiltration basin facilities.

Fugro has provided the attached proposal that details all of the required work tasks and their associated costs. As set forth in the attached proposal, Fugro is willing to perform this work on a time-and-materials basis with a not-to-exceed expenditure limit of \$16,000.

FISCAL IMPACT

The FY 10-11 Budget includes \$2,000,000 in Town Sewer Capacity Charges Fund (Fund #710) for the project. Sufficient funding is available in the current fiscal year.

STRATEGIC PLAN

Strategic Plan Goal 2.2 – Upgrade and Maintain Collection and Treatment Works
Strategic Plan Goal 2.3 – Select Disposal Solution for Southland Effluent and Implement

AGENDA ITEM 4
MARCH 3, 2011

RECOMMENDATION

Staff recommends that the Committee receive FUGRO's presentation, ask questions as appropriate and forward a recommendation to the Board authorize the General Manager to execute a task order with Fugro Consultants Inc. AECOM in the amount of \$16,000.

ATTACHMENT

Fugro Consultants inc. Proposal Dated February 22, 2011

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February 22, 2011
Project No. 2011.0121

660 Clarion Court, Suite A
San Luis Obispo, California 93401
Tel: (805) 542-0797
Fax: (805) 542-9311

Nipomo Community Services District
PO Box 326
Nipomo, California 93444

*Attention: Mr. Peter V. Sevcik
District Engineer*

**Subject: Proposed Scope of Work and Fee Estimate,
Groundwater Modeling for the Hydrogeologic Assessment of the Potential
Impacts of the Southland Wastewater Treatment Facility Expansion**

Dear Mr. Sevcik:

Fugro is pleased to present this proposed scope of work and fee estimate to provide additional services related to modeling of the groundwater mound beneath the District's Southland wastewater treatment facility. Specifically, this proposal is to evaluate the potential impacts and possible changes to the shape and height of the subsurface effluent mound if the District were to construct three additional percolation ponds west of the existing pond facility. The work outlined in this proposal will build upon previous groundwater modeling efforts documented in letter reports dated February 2008 and June 2008.

The initial modeling effort (January 2008) was part of the evaluation of the "put and take" concept, and consisted of the development of a groundwater flow model that represented the conditions at that time as known by the monitoring well water level data. The results of that modeling effort described the shape and size of the recharge mound beneath the percolation pond facility.

The second modeling task (June 2008) utilized the model to estimate the average discharge volume of the facility that would maintain the current shape and size of the mound. The results of that work indicated that the mound would maintain its (then) shape and size at an average discharge volume of 0.57 MGD, which was slightly lower than the discharge volume at that time of 0.61 MGD.

We understand that the District is now considering expansion of the facility to include three new ponds, to be built in the open field immediately west of the existing ponds. As we have discussed in various conversations and meetings, it would be advantageous to the District to conduct additional modeling at this time to update the model input data base, validate the prior assumptions, and assess the potential impacts and possible positive benefits of expanding the percolation pond facility.



The tasks will include the following:

- The existing model was prepared in January 2008, using water level data from the facility's monitoring well network through July 2007. As part of this current effort, we will obtain water level data since July 2007 from the District's monitoring well network, and recent facility discharge volume data to update the model. Because the available water level data in 2007 was somewhat limited, several assumptions had to be utilized in model development. Thus, an update of the model at this time is appropriate because 3½ more years of water level data exists to test the validity of the model assumptions. Updating the water level data base will allow us to update and re-calibrate the model and re-assess the model assumptions. If the original model assumptions prove to be valid (that is, the actual data from the last 3½ years plots along the modeled, projected hydrograph curves), then we will move forward with running new scenarios with reasonable confidence of the predictive scenario results. If the model assumptions require slight adjustments, we will re-calibrate the model before running discharge scenario forecasts.
- The existing groundwater flow model was constructed with 50-foot cells, thus the model configuration portrays a relatively accurate representation of the actual pond layout and configuration. Adding three new ponds and re-configuring the model layout would reasonably portray the new facility expansion.
- During the model update, we will add 2 to 4 hypothetical monitoring wells to the existing model layout and use the model to generate hydrographs for each of the hypothetical wells in order to illustrate the baseline shape of the mound. This will allow for a reasonable projection of how the mound will react if the existing conditions continue into the future (without adding the new ponds). This scenario will act as a baseline condition to allow us to compare the results of the baseline with the new pond layout, to evaluate the impacts that the new pond layout will have on the shape and size of the mound.
- A re-configured model layout will include three new ponds at the locations you designate. We will apply the average facility discharge evenly throughout the new pond layout. The result will presumably be a "flatter" mound that will most likely mitigate the vertical growth of the mound. Using the hypothetical monitoring wells that we build into the model in the baseline update and re-calibration, we will then prepare projected hydrographs to illustrate the impacts of expanding the pond layout. The hydrographs would, in essence, illustrate how much time the District could "buy" by building the new ponds, before the mound height reaches some designated depth below the facility.

We will provide our services on a time and expense basis. Our anticipated fee for the work tasks outlined above is approximately \$16,000. We anticipate being able to complete the work within six weeks after receiving the water level and discharge data.



We appreciate the opportunity to continue working with you on this project. Please do not hesitate to call if you have any questions.

Sincerely,

FUGRO CONSULTANTS, INC.

A handwritten signature in cursive script that reads "Paul A. Sorensen".

Paul A. Sorensen, PG, CHg
Principal Hydrogeologist