

**COUNTY OF SAN LUIS OBISPO BOARD OF SUPERVISORS  
AGENDA ITEM TRANSMITTAL**

(1) DEPARTMENT Public Works	(2) MEETING DATE May 9, 2006	(3) CONTACT/PHONE Dean Benedix, Utilities Division Manager (805) 781-5267
(4) SUBJECT Request to consider two Amendments to the Agreement with Black and Veatch, Walnut Creek, California, for specialized engineering services: Approve and sign Amendment No. 5 (all attachments included) which increases the production capability of the Upgrade Plant from 6 Million Gallons per Day (MGD) to 6.7 MGD, and, Approve and Sign Amendment No. 6 for completion of all design phase services		
(5) SUMMARY OF REQUEST Approve and sign Amendment No. 5 which increases the production capability of the Upgrade Plant from 6 Million Gallons per Day (MGD) to 6.7 MGD and request to approve and sign Amendment No. 6 for completion of all design phase services of the Project;		
(6) RECOMMENDED ACTION It is recommended that your Honorable Board: 1. Approve and sign Amendment No. 5 (all attachments included) to Agreement with Black and Veatch for specialized engineering services for an increase in the amount of \$77,000 to provide for a potential increase in the production capability of the Upgrade; and 2. Approve and sign Amendment No. 6 to the same Agreement with Black and Veatch for an increase in the amount of \$235,200 for completion of all design phase engineering services work.		
(7) FUNDING SOURCE(S) Flood Control Zone 3 Budget	(8) CURRENT YEAR COST \$312,200	(9) ANNUAL COST N/A
(10) BUDGETED? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A		
(11) OTHER AGENCY/ADVISORY GROUP INVOLVEMENT (LIST): County Department of General Services		
(12) WILL REQUEST REQUIRE ADDITIONAL STAFF? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, How Many? _____ <input type="checkbox"/> Permanent _____ <input type="checkbox"/> Limited Term _____ <input type="checkbox"/> Contract _____ <input type="checkbox"/> Temporary Help _____		
(13) SUPERVISOR DISTRICT(S) <input type="checkbox"/> 1st, <input type="checkbox"/> 2nd, <input checked="" type="checkbox"/> 3rd, <input checked="" type="checkbox"/> 4th, <input type="checkbox"/> 5th, <input type="checkbox"/> All	(14) LOCATION MAP <input checked="" type="checkbox"/> Attached <input type="checkbox"/> N/A	(15) Maddy Act Appointments Signed-off by Clerk of the Board N/A
(16) AGENDA PLACEMENT <input checked="" type="checkbox"/> Consent <input type="checkbox"/> Hearing (Time Est. _____) <input type="checkbox"/> Presentation <input type="checkbox"/> Board Business (Time Est. _____)	(17) EXECUTED DOCUMENTS <input type="checkbox"/> Resolutions (Orig + 4 copies) <input checked="" type="checkbox"/> Contracts (Orig + 4 copies) <input type="checkbox"/> Ordinances (Orig + 4 copies) <input type="checkbox"/> N/A	
(18) NEED EXTRA EXECUTED COPIES? <input type="checkbox"/> Number: _____ <input type="checkbox"/> Attached <input checked="" type="checkbox"/> N/A	(19) APPROPRIATION TRANSFER REQUIRED? <input type="checkbox"/> Submitted <input type="checkbox"/> 4/5th's Vote Required <input checked="" type="checkbox"/> N/A	
(20) OUTLINE AGREEMENT REQUISITION NUMBER (OAR) N/A	(21) W-9 <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	(22) Agenda Item History <input type="checkbox"/> N/A Date JULY 19, 2005
(23) ADMINISTRATIVE OFFICE REVIEW  <div style="text-align: right; font-size: 1.2em; font-family: cursive;">           OK Laslie         </div> <div style="text-align: right; font-size: 2em; font-family: cursive; margin-top: 10px;">           B. 17 5-9-06         </div>		



# SAN LUIS OBISPO COUNTY DEPARTMENT OF PUBLIC WORKS

Noel King, Director

County Government Center, Room 207 • San Luis Obispo CA 93408 • (805) 781-5252

Fax (805) 781-1229

email address: [pwd@co.slo.ca.us](mailto:pwd@co.slo.ca.us)

**TO: Board of Supervisors of the San Luis Obispo County Flood Control and Water Conservation District (District)**

**FROM: Dean Benedix, Utilities Division Manager** *DB by NK*

**VIA: Paavo A. Ogren, Deputy Director of Public Works - Administration** *PK*

**DATE: May 9, 2006**

**SUBJECT: Request to consider two Amendments to the Agreement with Black and Veatch, Walnut Creek, California, for specialized engineering services: Approve and sign Amendment No. 5 (all attachments included) which increases the production capability of the Upgrade Plant from 6 Million Gallons per Day (MGD) to 6.7 MGD, and, Approve and Sign Amendment No. 6 for completion of all design phase services**

## Recommendation

It is recommended that your Honorable Board:

1. Approve and sign Amendment No. 5 (all attachments included) to Agreement with Black and Veatch for specialized engineering services for an increase in the amount of \$77,000 to provide for a potential increase in the production capability of the Upgrade.
2. Approve and sign Amendment No. 6 to the same Agreement with Black and Veatch for an increase in the amount of \$235,200 for completion of all design phase engineering services work; and

## Discussion

The upgrade to the Lopez Water Treatment Plant, located eight miles east of the City of Arroyo Grande, is presently under construction. The Plant has provided drinking water to the South County for 36 years. Your Board awarded the design contract for the plant upgrade to the consulting firm Black and Veatch on January 14, 2003.

Amendment No. 5 was previously approved by your Board on July 19, 2005 without the exhibits which are attached herewith. This amendment provided for additional engineering services necessary to incorporate main system conveyance components for future increased plant production capacity. As recommended by County Counsel, a

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replacement Amendment No. 5 with attached exhibits (Exhibits A5 and B5) is provided for your approval, superseding the previously approved amendment.

The design phase lasted more than a year beyond the original timeline due to difficulties and delays during the pilot plant phase. In a November 2004 letter to the District, the consultant, Black and Veatch, indicated that they had provided a total of \$348,500 in additional engineering services. Staff reviewed the documentation provided by Black and Veatch and negotiated a mutually agreeable increase of \$235,200 for all additional work for design and piloting support services.

### **Other Agency Involvement/Impact**

The District continues to inform and work closely with Flood Control Zone 3 representatives on the implementation of this project. The Zone 3 Technical and Advisory Committees have been apprised of the budget change proposed by Amendment No. 6. The changes will not impact the State Revolving Fund (SRF) Loan.

### **Financial Considerations**

The project has received a \$26 Million SRF Loan. The summary of the Project Budget is found in Exhibit A.

With the additional compensation included in these two Amendments, the maximum total Black and Veatch consultant contract authorizations for both design and construction portions of their contracts are summarized as follows:

Current Authorized Amount	\$2,217,916
Amendment No. 5	77,000
Amendment No. 6	<u>235,200</u>
Total Authorized Amount	<u>\$2,530,116</u>

### **Results**

Approval of the recommended action will allow payment for services provided on this project. The facility upgrades will enable the Lopez Water Treatment Plant to meet both current and foreseeable future regulatory requirements. Additionally, the plant upgrade will enable this facility to continue to provide a level of service that ensures the health and safety of the Flood Control Zone 3 community.

Attachments:        Zone 3 Boundary Map  
                          Project Timeline  
                          Exhibit "A" Budget  
                          Amendment No. 5  
                          Amendment No. 6

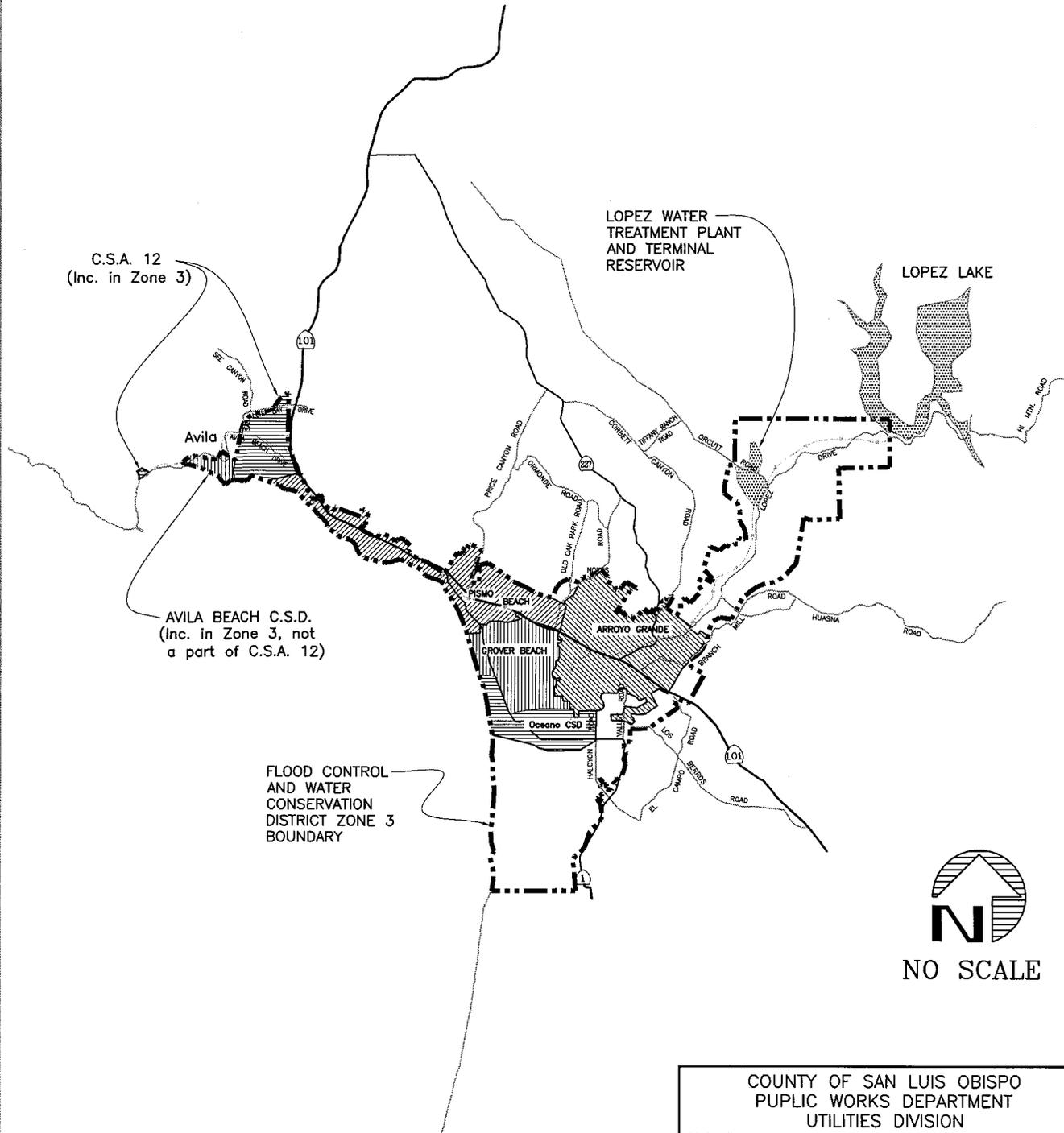
File: CF 340.136.01.a Districts/FC Zone 3 Lopez WTP – Upgrade

Reference: 06MAY9-C-4  
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# COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT ZONE 3 - LOPEZ WATER SYSTEMS

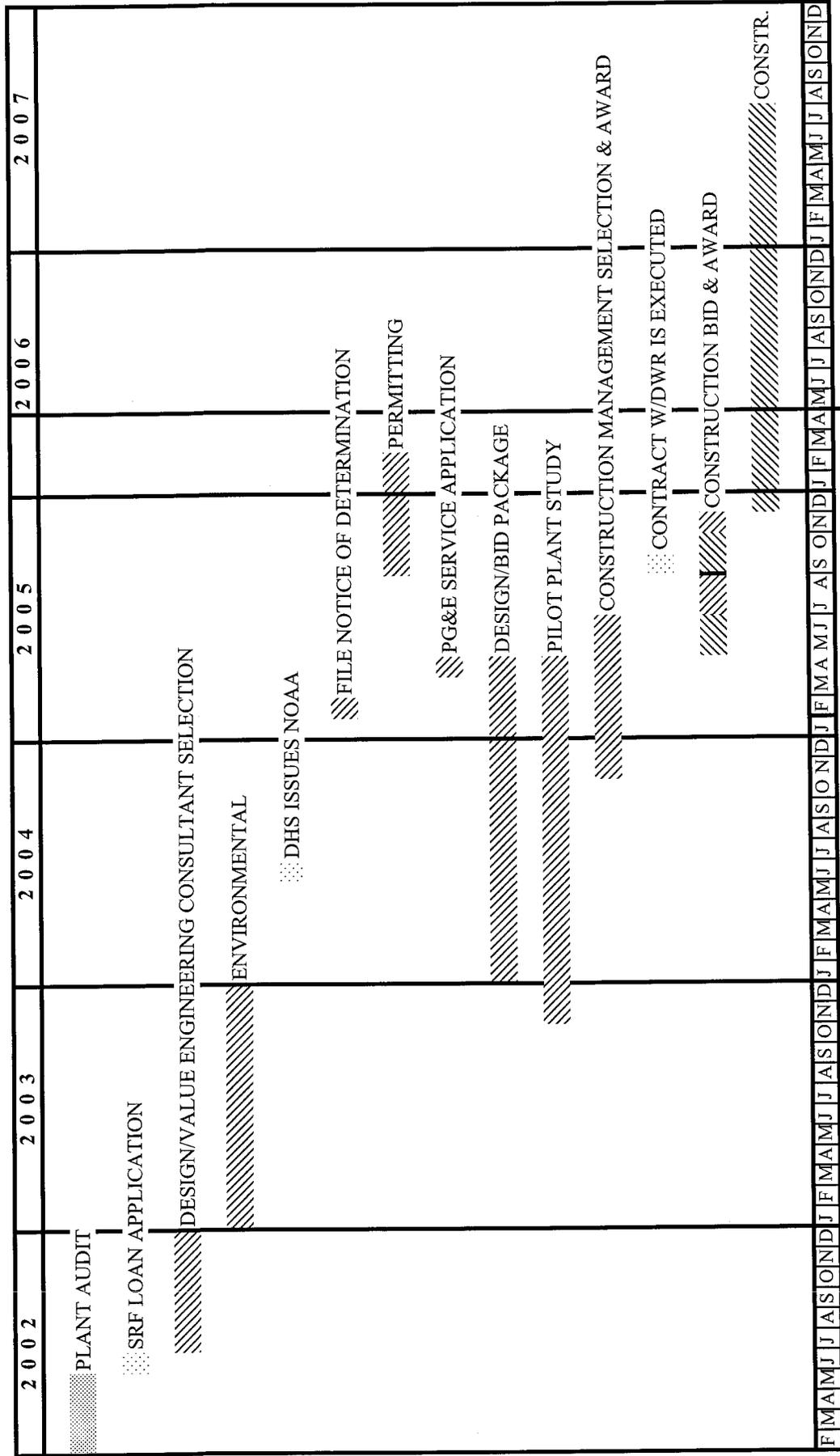
## BOUNDARY MAP



COUNTY OF SAN LUIS OBISPO  
PUBLIC WORKS DEPARTMENT  
UTILITIES DIVISION  
DRAWN BY: W.H.I. DATE 9-01

Handwritten signature/initials: W.H.I. and a large number 7.

# San Luis Obispo County Flood Control and Water Conservation District Zone 3-Lopez Water Treatment Plant Upgrade Project Timeline



we're here

- = PLANT ASSESSMENT OR AUDIT
- = FINANCIAL
- = DESIGN, ENVIRONMENTAL AND PERMITTING
- = CONSTRUCTION

COPY

**EXHIBIT A**

**Lopez Water Treatment Plant Upgrade Project**

**WBS 300189**

<b>Phase</b>	<b>Total Budget</b>
Preliminary Engineering Phase	433,000
Design Phase	3,169,679
Construction Phase	
County Staff and Professional Svcs	3,450,332
Construction Contractor	15,310,000
Construction Contingencies	1,536,879
Membrane Supplier Contract	2,100,110
<b>Total</b>	<b>26,000,000</b>
<b>BUDGET FUNDING SOURCES</b>	
State Revolving Fund Loan	26,000,000
<b>Total</b>	<b>26,000,000</b>

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**AMENDMENT NO. 5 TO:**

**CONTRACT FOR SPECIAL SERVICES BY  
INDEPENDENT CONTRACTOR**

The San Luis Obispo County Flood Control and Water Conservation District Zone 3 (District) and Black & Veatch Corporation (Contractor) hereby agree to amend the following articles of the Contract for Special Services by Independent Contractor (Contract) dated January 14, 2003, for the design of the Lopez Water Treatment Plant Upgrade, which was previously amended by Amendment Numbers 1, 2, 3 and 4, as follows:

- A. The following Exhibits to the Contract are amended as follows:
  - i. Exhibit A, "Scope of Work" is hereby amended by Exhibit "A5", "Amendment to Scope of Work-Design of Lopez Water Treatment Plant Upgrade per Amendment #5" dated June 16, 2005, attached hereto and incorporated herein by reference;
  - ii. Exhibit B, "Project Cost" is hereby amended by Exhibit "B5", "Revised Project Costs Per Amendment No. 5" dated June 16, 2005, attached hereto and incorporated herein by reference;
  
- B. Under Section 1, "Scope of Services", the following amendments are made: The third paragraph of Section 1 is hereby amended as follows: "Phase II includes Task 3, 'Final Design' at cost of ~~\$642,164~~689,161, all of the services in Task 4, "Project Management" related to Phase II at a cost of \$107,335 and Task 5, "Bid Support Services" at a cost of \$20,685. The total compensation to Contractor for Phase II is ~~\$740,184~~817,181."
  
- C. Under Section 2, "Compensation", the following amendments are made: The fifth sentence of the first paragraph is hereby amended as follows: "If the District does issue a Notice to Proceed for Phase II, District shall pay to Contractor as compensation in full for all work properly performed by Contractor pursuant to Phase II of this Contract, a total sum not to exceed ~~\$740,184~~817,181."
  
- D. With the Additional Services compensation included in this Amendment, the maximum total contract authorizations are summarized as follows:

Original Contract Scope of Services Amount	
Phases 1 & 2	\$998,301
Amendments 1, 2, 3 & 4 Additional Compensation	\$1,219,615
Previous Maximum Contract Authorization	\$2,217,916
This Amendment No 5 Additional Authorization	\$77,000
New Total Maximum Contract Authorization	\$2,294,916

All provisions of the Contract not affected by this Amendment No. 5, or other amendments, shall remain unchanged and in full force and effect. In the event of any conflict between the provisions of this Amendment No. 5, and the provisions of any lower-numbered amendment, the provisions of this Amendment No. 5 shall prevail.

The effective date of this Amendment No. 5 is the date its execution by both parties is completed by the appropriate signatures provided below.

**FLOOD CONTROL AND WATER  
CONSERVATION DISTRICT OF  
COUNTY OF SAN LUIS OBISPO**

Dated: \_\_\_\_\_

By: \_\_\_\_\_

Chairperson of the Board of  
Supervisors of the Flood Control and  
Water Conservation District

**ATTEST:**

\_\_\_\_\_  
County Clerk and Ex-Officio Clerk  
of the Board of Supervisors,  
County of San Luis Obispo,  
State of California

Dated: \_\_\_\_\_

**CONTRACTOR**

By: *Ronald E Henderson*  
Ronald E. Henderson, PE  
Vice President  
Black & Veatch Corporation

**APPROVED AS TO FORM  
AND LEGAL EFFECT:**  
JAMES B. LINDHOLM, JR.  
County Counsel

Dated: 4.18.06

By: *Catalina Foren*  
Deputy County Counsel

Dated: 4/3/06

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EXHIBIT A5:

**Amendment to Scope of Work-Design of Lopez Water Treatment Plant Upgrade per Amendment #5**

1. Revise the Scope of Work as follows:

**3.4 Final Documents (Level 5 Construction Documents).** Incorporate Owner and Constructability comments into the drawings and specifications and provide a final submittal. Include in the final design an increase in the size of the main feed line facilities by 0.7 million gallons per day (MGD) to 6.7 MGD.

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**EXHIBIT B5**  
**Revised Project Costs per Amendment No.5**

<b>TASK</b>	<b>FEEES</b>
<b>Conceptual Design/Membrane System Procurement</b>	
Kickoff Meeting	\$7,447
Tailor B&V Membrane Procurement Model to SLO County Requ.	\$22,581
Procurement Support for Private Attorney Documents	\$27,649
Bid Membrane System	\$13,916
Evaluation and Recommendation of Award	\$22,861
Proof Pilot	\$12,832
Non-process Space Needs	\$18,400
Process Design Needs	\$17,400
Draft Design Report	\$26,390
Review Comments	\$14,330
Prepare Executive Summary	\$9,040
Final Report	\$17,770
<i>Total, Task 1</i>	<i>\$210,617</i>
<b>Preliminary Design</b>	
Process Design	
Verify Unit Process Sizing	\$4,814
Conceptual Site Layout	\$7,290
Schematic Design	
Valve Locations	\$804
Primary I&C Elements	\$804
Control Strategy	\$3,820
Geotech Investigations	\$14,004
Seismic Analysis of Site	\$8,505
Site Survey	\$10,350
Environmental Support	\$12,360
Hydraulic Calculations	\$2,490
Control System Block Diagram	\$2,270
Computer Network Design	\$2,270
Equipment Subsystems	\$2,270
Foundation Recommendations	\$5,070
Preliminary P&IDs	\$16,910
Equipment Lists	\$4,150
Finalize Process Control Strategy	\$1,770
Equipment Data Sheets	\$3,930
Architectural Program	\$4,150
Software Control Descriptions	\$4,150
I&C Memorandum	\$3,330
Electrical Memorandum	\$3,330
Architectural Memorandum	\$3,330
Structural Memorandum	\$3,330
Mechanical Process Memorandum	\$3,330
Civil Memorandum	\$3,920
VE Phase	\$8,270
<i>Total, Task 2</i>	<i>\$141,021</i>
<b>Detailed Design</b>	
Level 1	\$47,450
VE Phase	\$7,720
Level 2	\$80,200
Level 3 60% Design Submittal	\$120,282
Level 4 90% Design Submittal	\$252,873
<b>Level 5 100% Design Submittal</b>	<b>\$141,756</b>
Addendum	\$38,880
<i>Total, Task 3</i>	<i>\$689,161</i>
<b>Project Management - QA/QC</b>	
Project Workplan	\$8,693
Monthly Invoices	\$26,290
Meetings/Coordination	\$70,427
QA/QC	\$66,804
<i>Total, Task 4</i>	<i>\$172,214</i>
<b>Construction Services Estimate</b>	
Bid Phase	
Pre-Bid Conference - Invitation to Bid	\$5,618
Finalize Bidding Documents	\$11,836
Bid Tab/Evaluation and Recommendation of Award	\$3,231
<i>Total, Task 5</i>	<i>\$20,685</i>
<b>Office Engineering During Construction</b>	
Meetings/Site Visits	\$133,060
Submittals	\$284,086
Construction Support Services	\$124,244
I&C Field Services	\$72,125
Startup and Personnel Training Services	\$27,263
<i>Total, Task 6</i>	<i>\$640,778</i>
<b>SCADA Configuration Services</b>	
SCADA Configuration Development	\$236,811
SCADA Startup Services	\$183,629
<i>Total, Task 7</i>	<i>\$420,440</i>
<b>PROJECT TOTAL</b>	<b>\$2,294,916</b>

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**AMENDMENT NO. 6 TO**

**AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES  
FOR DESIGN OF THE LOPEZ WATER TREATMENT PLANT UPGRADE OF THE  
FLOOD CONTROL AND WATER CONSERVATION DISTRICT ZONE 3**

This Amendment No. 6 is made to the AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES FOR DESIGN OF THE LOPEZ WATER TREATMENT PLANT UPGRADE OF THE FLOOD CONTROL AND WATER CONSERVATION DISTRICT ZONE 3 of January 14, 2003, ("AGREEMENT") made by and between the SAN LUIS OBISPO COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT ZONE 3 ("DISTRICT"), and Black and Veatch Corporation, a California corporation, with its principal offices located in Kansas City, Missouri, ("ENGINEER"), at San Luis Obispo, California, on \_\_\_\_\_, 2006.

This Amendment No. 6 hereby amends Sections 1 and 2 of the Agreement by adding engineering services and compensation as follows:

1. **Section 1. Scope of Services**
  - a. Exhibit A, "Scope of Work", is hereby amended by adding the services described in Exhibit "A6", "Amendment No. 6 to Scope of Work-Design of Lopez Water Treatment Plant Upgrade", attached hereto and incorporated herein by reference.
  - b. The total compensation for completion of all Phase I and Phase II work, including that described in Exhibit A6, is increased by \$235,200 from \$2,294,916 to \$2,530,116.
  
2. **Section 2. "Compensation"**, of the AGREEMENT is hereby amended by adding the following: "District and Contractor agree that for all Phase I and II services, District shall pay to contractor as compensation in full for all work properly performed by Contractor a total sum not to exceed \$2,530,116.

With the additional Services compensation included in this Amendment, the maximum total contract authorizations are summarized as follows:

Original Contract Scope of Services Amount	\$998,301
Phases 1&2	
Amendments 1, 2, 3, 4, &5 Additional Compensation	\$1,296,615
Previous Maximum Contract Authorization	\$2,294,916
This Amendment No 6 Additional Authorization	\$235,200
New Total Maximum Contract Authorization	\$2,530,116

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IN WITNESS WHEREOF, THIS AMENDMENT NO. 6 has been executed by the parties hereto, upon the date first above written.

FLOOD CONTROL AND WATER  
CONSERVATION DISTRICT OF COUNTY  
OF SAN LUIS OBISPO

Date: \_\_\_\_\_, 20\_\_

By: \_\_\_\_\_  
Chairperson of the Board of Supervisors  
of the Flood Control and Water  
Conservation District of County of  
San Luis Obispo, State of California

ATTEST:

\_\_\_\_\_  
County Clerk and Ex-Officio Clerk of the  
Board of Supervisors, County of San Luis Obispo,  
State of California

Date: \_\_\_\_\_

BLACK AND VEATCH

Date: April 10, 2006

By: David R. Mahaffey  
Title: SR. V.P.

APPROVED AS TO FORM AND LEGAL EFFECT:

JAMES B. LINDHOLM, JR.  
County Counsel

By: Patricia J. Foran  
Deputy County Counsel

Date: 4/3/06

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**EXHIBIT A6:**

**Amendment #6 to Scope of Work-Design of Lopez Water Treatment Plant Upgrade**

The following additional engineering services are included in the Scope of Work:

1. The design of additional structures and chemical feed system:
  - a. Two additional new buildings, the membrane and chemical feed/supply buildings
  - b. Revisions to building design during the design process
  - c. A canopy over the powder activated carbon (PAC) feed system
  - d. The conversion of the existing north filter kiosk to an ammonia feed building
  - e. The design of a new PAC chemical feed system.
2. Additional specification preparation, review and coordination services
3. Additional Pilot Plant Testing Program services through completion of the piloting
4. Additional support services performed during the extended project design and piloting phase of approximately 10 months

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