

SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA 134



FROM: Waste Management Department

SUBMITTAL DATE: April 9, 2003

SUBJECT: First Amendment to the Consultant Agreement with GeoSyntec Consultants for additional Professional Services at the Badlands and Lamb Canyon Sanitary Landfills

RECOMMENDED MOTION:

- 1) That the Board approve the First Amendment to the Consultant Agreement with GeoSyntec Consultants and authorize the Chairman to execute the agreement on behalf of the Department.
- 2) Authorize the General Manager-Chief Engineer to approve future amendments to the agreement not to exceed ten percent (10%) of the initial cost.

BACKGROUND: On September 10, 2002, the Board approved and executed a Consultant Agreement between the Department and GeoSyntec Consultants for an alternative cover design assistance at the Edom Hill and Mecca II landfills for \$36,500. Subsequent consultations have been required at the landfills at Lamb Canyon and Badlands. Past Department practice has been to issue purchase orders for professional services that were not expected to exceed \$25,000.00. Each consultation was priced and awarded separately. (Continued)




 Joseph R. McCann, General Manager-Chief Engineer

FINANCIAL DATA: ANNUAL COST: \$ N/A
 CURRENT YEAR COST: 150,692 IN CURRENT YEAR BUDGET: YES X NO _____
 NET COUNTY COST: \$ N/A BUDGET ADJUSTMENT: YES ___ NO X FY:02/03
 SOURCE OF FUNDS: Waste Management Department Revenue (Disposal Fees) and Closure Escrow Accounts

COUNTY C.E.O. RECOMMENDATION:

APPROVE

Executive Officer Signature



FORM APPROVED
COUNTY COUNSEL

APR 24 2003



Policy
 Policy

Consent
 Consent

Department Recommendation:
Per Executive Office:

Department policy is being amended to process all professional service awards and amendments through the Purchasing Department or the Board for approval depending on the estimated total annual compensation to the vendor. This change provides a clearer representation of total payments by the Department to the professional service providers during a fiscal year.

The following is a summary of work and cost either currently being conducted or proposed by GeoSyntec Consultants for the County landfill sites:

Landfill Site	Project Description	Estimated Cost	Start Date	Estimated Completion Date
Mecca II	Alternative Cover Design	\$16,500	Aug. 2002	Oct. 2002
Edom Hill	Alternative Cover Design	\$20,000	Sept. 2002	Nov. 2002
Lamb Canyon	Alternative Cover Design	\$25,000	Feb. 2003	Apr. 2003
Lamb Canyon	Stability Analyses	\$19,900	Feb. 2003	Mar. 2003
Lamb Canyon	Emergency Geological and Geotechnical Evaluation	\$8,989	Mar. 2003	Mar. 2003
Badlands	Construction Quality Assurance	\$24,440	Nov. 2002	Dec. 2002
Badlands	Quality Assurance/ Quality Control	\$22,469	Jan. 2003	Jan. 2003
Badlands	Design Recommendation Report	\$13,394	May 2003	Aug. 2003
Total to GeoSyntec		\$150,692		

A more detailed report outlining the additional work is provided as Attachment A and complete technical submissions for the additional project scopes are included as exhibits to the amendment.

These projects are budgeted in Fund 40200, Department ID – 4500100000.

**OVERVIEW OF PROJECTS
AWARDED GEOSYNTEC CONSULTANTS
by WASTE MANAGEMENT DEPARTMENT
Fiscal Year 2003**

Lamb Canyon Landfill – Alternative Final Cover Design

The Department intends to implement a partial final closure of a discrete unit at the Lamb Canyon landfill when it reaches capacity in the year 2004. The closed portion of the landfill could be utilized for stockpiling non-waste materials, or be designated as a staging area during the upcoming lateral expansion projects at that site.

Section 21780, Title 27 of the California Code of regulations (CCR) requires that a partial final closure and post-closure maintenance plan for solid waste units be submitted two years prior to the anticipated date of closure of that discrete unit.

Because a State prescribed clay cover may not perform as well as a monolithic cover over the required 30 year post-closure maintenance period in the arid environment of Southern California, the California Integrated Waste Management Board, and the California Regional Water Quality Control Board have suggested that an alternative monolithic cover be evaluated for final closure and post-closure maintenance plans for solid waste facilities.

Use of alternative monolithic covers is allowed by Title 27 CCR. It has been estimated that an alternative monolithic cover design could also be constructed at a significantly lower cost than a prescriptive cover, as well as reduce post-closure maintenance costs.

In response to the Department Request for Proposal (RFP), two consultant proposals were received of \$17,762 and \$20,500 for the basic requirements and an additional \$3,505 and \$4,500 for preparation of a presentation. The proposals were reviewed by the Department's engineering staff and GeoSyntec Consultants' proposal was the most technically sound and the most responsive at a total cost of \$25,000.

The low bid was not selected because the proposal did not address all the issues significant to the outcome of the alternative final cover design. GeoSyntec Consultants did address this issue in their proposal. Moreover, they performed a preliminary analysis by utilizing site-specific information in order to demonstrate that the incorporation of this concept in the design would result in a more economical final cover system.

Lamb Canyon Landfill – Stability Analyses for Phase 2, Stage 2 Lateral Expansion

The current capacity within the developed landfill area is estimated to be sufficient until 2004. In order to maintain disposal capacity at this site, it is necessary to develop capacity using the adjacent canyon to the southwest. The California Regional Water Quality Control and Subtitle D of the Federal Code of Regulations (FCR) require the expansion to have a composite liner system on the proposed landfill subgrade. Static and seismic stability analyses of the lined sub-grade and the proposed refuse fill slopes are also required.

In response to a Department RFP, three proposals were received from consultants qualified in this field. The total cost of the three proposals varied from \$14,110 to \$19,900. Based on Department's review, GeoSyntec Consultants was found the most responsive to the RFP at a total cost of \$19,900.

The low bid was not selected based upon staff evaluation as follows:

- a) Did not demonstrate clear understanding of the potential critical geologic and slope conditions at the site, which may influence the outcome of the stability analyses.
- b) Proposed conservative approach for performing the required analyses which may result in flattening the proposed slopes; hence, loss of valuable landfill space.
- c) The proposed method for performing the required seismic hazard analysis is not recommended for sites (such as Lamb Canyon landfill) that exhibit high ground acceleration during major seismic events.
- d) Proposal contained mathematical error in computing the total cost for this work.

The primary reasons for recommending GeoSyntec include the following:

- 1) Extensive experience on other similar projects;
- 2) Their recommended approach for carrying out the seismic stability analysis, as compared to the other two consultants, is more aggressive yet technically sound; and
- 3) The other two proposals indicated that, should unstable slopes be encountered, they will provide recommendations for modifying the proposed slopes or revise liner configuration. This scenario could have resulted in additional analysis by the consultant, loss of valuable landfill space (estimated at \$1.5 million), and potential increase in construction cost.

Lamb Canyon – Emergency Geological and Geotechnical Evaluation

The recent intense rainfall caused a landslide incident to occur on a portion of the existing slopes within the planned expansion area. The failed slope is adjacent to the existing landfill unit. It required immediate geological and geotechnical evaluation in order to develop a proper remedial plan. GeoSyntec was requested to submit a separate cost estimate for performing this additional task as an integral part of the required stability analyses for the planned lateral expansion project. Geosyntec has submitted a cost estimate of \$8,989.00 for performing this additional task.

Badlands Landfill – Construction Quality Assurance Services for Canyon 3 Phase 1

On December 10, 2002 the Board approved Change Order No. 1 to the agreement with L.D.Anderson Inc (Contractor), authorizing Contractor to proceed with extra work required to comply with the California Regional Water Quality Control Board (CRWQCB) order requiring replacement of the protective cover soil layer over existing liner system. The area of concern listed in the CRWQB order was located in the northerly slopes of Canyon 3, Phase 1 (C3P1) expansion. The CRWQCB order also directed the Department to provide continuous Construction Quality Assurance (CQA) by a third party consultant during the removal and replacement of the operation layer as described in the CRWQCB order.

The Department estimated the hours required for CQA services based on a limited amount of liner damage described in the CRWQCB order. GeoSyntec submitted a proposal in the amount of \$10,027.00 and was selected to perform the CQA tasks outlined in the CRWQCB order based on their familiarity with the site design and slope stability issues encountered during the construction of C4P2 as well as their recent success in securing approval of the C4P2 design by the CRWQCB. The Department proceeded with authorizing the work due to the urgency of the CRWQCB order. Work done by GeoSyntec on this project began on November 25, 2002 and was completed on December 31, 2002 with a total cost of \$24,439.54. The cost of the work by GeoSyntec exceeded the proposed amount due to the CRWQCB's request to evaluate, research and document the extent of the acceptable liner damage, completed repairs, and additional work required for slope stability evaluation of easterly bedding planes.

Badlands Landfill - Canyon 3 Phase 1 (C3P1) Quality Assurance/Quality Control (QA/QC) Services for Liner Repair

During the project work described above unanticipated gaps were discovered in the existing C3P1 liner system. The Department received three proposals ranging from \$10,600.00 to \$14,250.00 to perform QA/QC services for repair of this liner system. The Department selected GeoSyntec's proposal at \$13,609.00 based on the thoroughness of their proposal and their understanding of the issues in the CRWQCB order. Due to the urgency of the work and potential fines, the Department authorized GeoSyntec to proceed with the work. The fieldwork by GeoSyntec began on January 1 and was completed on January 23, 2003. The cost of this work amounted to \$22,469.16, which exceeded the proposal amount (\$13,609.00) due to additional unanticipated quantity of liner repairs needed to complete the work. The CQA Report was submitted to the CRWQCB on February 8, 2003 and the CRWQCB order will be rescinded at their next Board meeting.

Badlands Landfill - Canyon 4 Phase 2 (C4P2) Liner Design Recommendation Report

During the construction of C4P2 expansion, refuse was found outside the 1993 established refuse footprint. Due to the urgency of addressing this issue and to avoid construction delays, Department staff committed to submit to CRWQCB a design detail that would include lining that part of the side slope in question. The Department received responses from two consultants - GeoSyntec and Advanced Earth Sciences (AES). Upon review of the submitted proposals, GeoSyntec is recommended at the cost of \$13,394 based on the following:

- GeoSyntec's proposal is more thorough and addresses the issue in detail
- GeoSyntec was the consultant for the design and slope stability analysis of C4P3 and will be able to provide design consistency in the issues involved.