

**SUBMITTAL TO THE BOARD OF DIRECTORS  
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**

693



**FROM:** Waste Management Department

**SUBMITTAL DATE:**  
February 17, 2006

**SUBJECT:** First Amendment to the Consultant Agreement with Advanced Earth Sciences, Inc. to provide additional Geological and Geotechnical Professional Services during the current Earthwork Excavation and Grading Project at the Lamb Canyon Sanitary Landfill.

**RECOMMENDED MOTION:** That the Board approve the First Amendment to the Consultant Agreement with Advanced Earth Science, Inc. (AES), and authorize the Chairman to execute it on behalf of the Department.

**BACKGROUND:** On August 23, 2005, the Board approved and executed a Consultant Agreement between the Department and AES to provide geological and geotechnical professional services during the current Earthwork Excavation and Grading project at the Lamb Canyon Landfill for a total cost of \$41,435. This earthwork project represents the initial stage of constructing a Waste Recycle Park (WRP) facility and a lateral liner expansion project at this site.

The contracted professional services consist of a total of five distinct tasks involving both field and office work. The field work includes 1) performing Construction Quality Assurance (CQA) observations and soil testing, and 2) geologic mapping of the excavated areas. The office work includes 1) performing hydraulic evaluation of a proposed alternative composite liner system, 2) evaluating the static and seismic stability of the design side-slopes within the WRP project area and the proposed liner sub-grade and the refuse fill slope, and 3) evaluating the suitability of using a shallow foundation system to support the planned steel frame structure within the WRP area.

(cont'd)

Hans W. Kernkamp, General Manager - Chief Engineer

<b>FINANCIAL DATA</b>	Current F.Y. Total Cost:	\$ 26,220.00	In Current Year Budget:	Yes
	Current F.Y. Net County Cost:	\$ 0	Budget Adjustment:	No
	Annual Net County Cost:	\$ 0	For Fiscal Year:	05\06

<b>SOURCE OF FUNDS:</b> Waste Management Department Enterprise Funds	<b>Positions To Be Deleted Per A-30</b>	<input type="checkbox"/>
	<b>Requires 4/5 Vote</b>	<input type="checkbox"/>

**C.E.O. RECOMMENDATION:**

**APPROVE**

County Executive Office Signature

- Policy
- Consent
- Per Exec. Ofc.:

Prev. Agn. Ref.: 12.2 (8/23/05) | District: 5 | Agenda Number:

**ATTACHMENTS FILED  
WITH THE CLERK OF THE BOARD**

**12.2**

FORM APPROVED  
COUNTY COUNSEL

FEB 17 2006

Departmental Concurrence

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Additional professional services are needed in this project for the following reasons:

- 1) Additional CQA observations and soil testing due to:
  - a. The increase in quantity of the originally estimated engineered fill material within the WRP area; and
  - b. The construction of an engineered fill Shoulder Plug along the easterly boundary of the existing landfill unit. This shoulder plug was necessary in order to create a wet-weather disposal area. This task was not included in the original scope of work.

The cost for this additional CQA Services amounts to \$6,640.00.

- 2) Additional geologic mapping during excavation and grading operations due to:
  - a. Variations in the geologic conditions encountered within the excavation areas; and
  - b. An additional 300,000 cubic yards of excavation and 40 additional working days that have been added to the original construction contract by the Department via Change Order No. 2. This contract change order was approved by the Board on December 20, 2005.
  - c. Assessment of a local slope failure (landslide) which has occurred in the excavated slopes within the WRP area.

The cost for this additional geologic mapping services amounts to \$8,140.00.

- 3) Additional stability analyses of the slopes within the WRP and expansion areas due to:
  - a. Unfavorable geologic conditions (out-of-slope bedding) encountered during excavation in the WRP area required additional analyses to examine different alternatives for stabilizing these slopes.
  - b. Additional iterations of subgrade slope stability analyses for the expansion area due to out-of-slope bedding conditions.
  - c. Additional seismic deformation analyses of refuse slopes in order to arrive at a revised geometry that would comply with the deformation criteria set forth by the governing State and Federal codes of regulations. The additional evaluation will allow for a design that creates more landfill space and a lower construction cost based on a less complicated design.

The cost for this additional stability analyses services amounts to \$2,940.00.

- 4) Anticipated additional professional services under the terms of the original consultant agreement due to:
  - a. Additional geologic mapping for an additional 275,000 cubic yards of excavation and 50 extra working days, proposed to the original construction contract via Change Order No. 3, which is being presented concurrently to the Board for approval under a separate Form 11 today.
  - b. Additional CQA observations and soil testing during the landslide remediation work in the WRP area.

The estimated cost for this additional professional services amounts to \$8,500.

The additional services will be provided at the same unit rates as in the original proposal. The cumulative budget increase for the additional geologic and geotechnical services as detailed above is estimated at \$26,220, which will increase the Consultant Agreement from \$41,435 to \$67,655. Staff believes that the additional work is necessary and the total additional costs are reasonable.

Budget for this additional work will be provided from Fund 40200, Department ID – 4500100000.

Attachment: First Amendment to Consultant Agreement

EC/FM  
PD#40803v2