



County of Santa Cruz

DEPARTMENT OF PUBLIC WORKS

701 OCEAN STREET, ROOM 410, SANTA CRUZ, CA 95060
(831) 454-2160 FAX (831) 454-2385 TDD (831) 454-2123

JOHN A. FANTHAM
DIRECTOR OF PUBLIC WORKS

AGENDA: December 15, 1998

December 3, 1998

SANTA CRUZ COUNTY BOARD OF SUPERVISORS

701 Ocean Street
Santa Cruz, California 95060

**SUBJECT: 1999 CONSULTING ENGINEERING SERVICES
AGREEMENT FOR THE BUENA VISTA LANDFILL**

Members of the Board:

Attached for your approval is an Independent Contractor Agreement with CH2M Hill, Inc., for 1999. This agreement will provide engineering and technical services for the following solid waste related engineering projects: construction quality assurance (CQA) for Module 6 (scheduled for construction in spring 1999), site development planning to reflect changes in long term soil management, and technical review and preliminary engineering for use of Watsonville Landfill to store a portion of the soil excavated from the Buena Vista Landfill (per soil management project condition of approval A. 12, October 20, 1998). The total cost for these engineering services will be \$173,015.00.

The current active disposal site, Module 3, is quickly reaching interim capacity and the next phase in landfill construction will need to be initiated in spring 1999. Delays in approval of the off-site soil storage project have necessitated development of the landfill disposal modules out of planned order. We will be constructing Module 6 (formally Module 5a) next. This change in sequence will allow construction of this relatively small module without the need for the off-site soil storage site; however, this change in sequence will only provide for 1.5 to 2 years of interim capacity and much of the soil excavated from this module site will require double handling and eventually storage on the new soil storage site in 2000. The attached scope of work will provide for CQA on this project, which includes extensive materials testing required under State and Federal law. Materials testing is required during all phases of construction and includes sub-grade soils, clay liner soils, geosynthetic membrane liner, filter fabrics, leachate collection system components, and operations/drainage components.

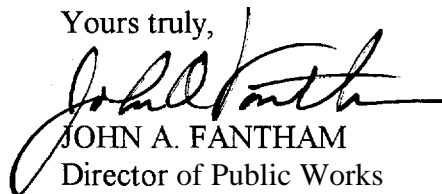
Due to ongoing delays in approval of the Buena Vista Landfill Soil Management Project as stated above, it is now necessary to alter the planned development of the landfill to accommodate new soil management conditions. Among other things, the revised landfill development plans will have to incorporate a 350,000 cubic yard on-site soil stockpile, require the relocation and reconfiguration of drainage and landfill gas collection facilities, and change the planned construction sequence from two to three phases. The attached scope of work will provide for completion of site development plans necessary to amend the landfill's operating permit with the California Integrated Waste Management Board.

Again, as a result of new conditions of approval for the soil management project, we are required to review the option of storing some of the excavated soils on the adjacent Watsonville Landfill site, if feasible. The attached scope of work provides for preliminary review and conceptual engineering for use of the Watsonville Landfill site to store soil. This task includes review of existing geotechnical data, analysis of air and noise impacts, slope stability analysis, review of access and railroad crossing limitations, development of preliminary grading and phasing drawings, and preliminary capital and operating cost analysis.

All of these projects are required as a result of the County's obligation to maintain ongoing solid waste services, complete future landfill construction, and comply with Federal and State mandates for management of solid waste landfills. Sufficient funds are available within the 1998/99 CSA-9C Solid Waste Enterprise Fund for this purpose. It is therefore recommended that the Board of Supervisors take the following actions:

1. Approve the attached Agreement with CH2M Hill for Solid Waste Consultant Engineering Services at total cost not-to-exceed \$173,015.00, and authorize the Director of Public Works to sign the Agreement on behalf of the County.
2. Direct the Clerk of the Board to return a copy of the executed agreement to the Department of Public Works for further processing.

Yours truly,

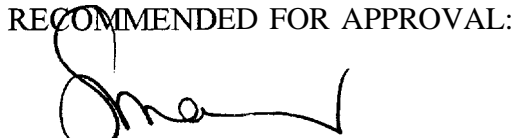


JOHN A. FANTHAM
Director of Public Works

RPM:mg

Attachments

RECOMMENDED FOR APPROVAL:



County Administrative Officer

copy to: CH2M Hill, Inc.
Public Works Department

COUNTY OF SANTA CRUZ
REQUEST FOR APPROVAL OF AGREEMENT

223

TO: Board of Supervisors
County Administrative Officer
County Counsel
Auditor-Controller

FROM: PUBLIC WORKS (Dept.)
[Signature] (Signature) 12/2/98 (Date)

The Board of Supervisors is hereby requested to approve the attached agreement and authorize the execution of the same.

1. Said agreement is between the COUNTY OF SANTA CRUZ (Agency)
CH2M HILL CALIFORNIA, INC.,
and, P.O. BOX 12681, OAKLAND, CA 94604-2681 (Name & Address)

2. The agreement will provide FOR CONSULTING ENGINEERING SERVICES FOR THE BUENA VISTA
LANDFILL

3. The agreement is needed BECAUSE THIS WORK CAN BE PERFORMED MOST EXPEDITIOUSLY BY CONTRACT

4. Period of the agreement is from BOARD APPROVAL to JUNE 30, 1999

5. Anticipated cost is \$ 173,015.00 (Fixed amount; Monthly rate, Not to exceed)

6. Remarks: CONTRACT \$173,015.00; OVERHEAD 7%; \$12,111.05; TOTAL \$185,126.05

7. Appropriations are budgeted in \$ 103,405.00, 951250 6610 PO0247 (625119) (6610)
69,610.00, 991414 3590 PO0247 (625119) (3590) (Subobject)

NOTE: IF APPROPRIATIONS ARE INSUFFICIENT, ATTACH COMPLETED FORM AUD-74

Appropriations are available and will be encumbered. Contract No. 0081757 Date 12/2/98

GARY A. KNUTSON, Auditor - Controller

By Jinda Chou Deputy.

Proposal reviewed and approved. It is recommended that the Board of Supervisors approve the agreement and authorize the DIRECTOR OF PUBLIC WORKS to execute the same on behalf of the COUNTY OF SANTA CRUZ (Agency). County Administrative Officer

Remarks: _____ (Analyst) By _____ Date _____

Agreement approved as to form. Date _____

RPM:mg

Distribution:
Bd. of Supv. • White
Auditor-Controller • Blue
County Counsel • Green •
Co. Admin. Officer • Canary
Auditor-Controller • Pink
Originating Dept. • Goldenrod

*To Orig. Dept. if rejected.

State of California)
County of Santa Cruz) ss
I _____ ex-officio Clerk of the Board of Supervisors of the County of Santa Cruz,
State of California, do hereby certify that the foregoing request for approval of agreement was approved by
said Board of Supervisors as recommended by the County Administrative Officer by an order duly entered
in the minutes of said Board on _____ County Administrative Officer
_____ 19 _____ By _____ Deputy Clerk

Contract No. _____

INDEPENDENT CONTRACTOR AGREEMENT

THIS CONTRACT is entered into this _____ day of _____ 1998, by and between the COUNTY OF SANTA CRUZ, hereinafter called COUNTY, and CH2M HILL, INC., hereinafter called CONTRACTOR. The parties agree as follows:

1. DUTIES. CONTRACTOR agrees to exercise special skill to accomplish the following result: PERFORM PROFESSIONAL AND TECHNICAL SOLID WASTE SERVICES FOR THE BUENA VISTA LANDFILL AS OUTLINED IN THE ATTACHED SCOPE OF WORK MARKED EXHIBIT "A."

2. COMPENSATION. In consideration for CONTRACTOR accomplishing said result, COUNTY agrees to pay CONTRACTOR as follows: PROGRESS PAYMENTS IN ACCORDANCE WITH TASKS OUTLINED IN THE ATTACHED SCOPE OF WORK, EXHIBIT "A." PAYMENTS FOR SERVICES PERFORMED SHALL NOT EXCEED \$173,015.00. CHARGES WILL BE IN ACCORDANCE WITH LABOR RATES AND OUTSIDE SERVICE CHARGE POLICY INCLUDED UNDER THE SCOPE OF WORK EXPENSES SHALL BE CHARGED IN ACCORDANCE WITH THE MOST CURRENT STANDARD EXPENSE RATES ON FILE WITH PUBLIC WORKS AND THE AUDITOR/CONTROLLER.

3. TERM. The term of this contract shall be: FROM AWARD OF CONTRACT TO COMPLETION.

4. EARLY TERMINATION. Either party hereto may terminate this contract at any time by giving 30 days written notice to the other party.

5. INDEMNIFICATION FOR DAMAGES. TAXES AND CONTRIBUTIONS. CONTRACTOR shall exonerate, indemnify, defend, and hold harmless COUNTY (which for the purpose of paragraphs 5 and 6 shall include, without limitation, its officers, agents, employees and volunteers) from and against:

A. To the proportionate extent that any and all claims, demands, losses, damages, defense costs, or liability of any kind or nature which COUNTY may sustain or incur or which may be imposed upon it for injury to or death of persons, or damage to property as a result of, arising out of, or in any manner connected with the CONTRACTORS deficient performance under the terms of this Agreement, excepting any liability arising out of the negligence of the COUNTY. Such indemnification includes any damage to the person(s), or property(ies) of CONTRACTOR and third persons.

B. Any and all Federal, State and Local taxes, charges, fees, or contributions required to be paid with respect to CONTRACTOR and CONTRACTORS officers, employees

and agents engaged in the performance of this Agreement (including, without limitation, unemployment insurance, social security and payroll tax withholding).

6. INSURANCE. CONTRACTOR, at its sole cost and expense, for the full term of this Agreement (and any extensions thereof), shall obtain and maintain at a minimum compliance with all of the following insurance coverage(s) and requirements. Such insurance coverage shall be primary coverage as respects COUNTY and any insurance or self-insurance maintained by County shall be excess of CONTRACTORS insurance coverage and shall not contribute to it.

If CONTRACTOR utilizes one or more subcontractors in the performance of this Agreement, CONTRACTOR shall obtain and maintain Independent Contractor's Insurance as to each subcontractor or otherwise provide evidence of insurance coverage for each subcontractor equivalent to that required of CONTRACTOR in this Agreement, unless CONTRACTOR and COUNTY both initial here ____/____.

A. Types of Insurance and Minimum Limits

(1) Worker's Compensation in the minimum statutorily required coverage amounts. This insurance coverage shall not be required if the CONTRACTOR has no employees and certifies to this fact by initialing here _____

(2) Automobile Liability Insurance for each of CONTRACTOR's vehicles used in the performance of this Agreement, including owned, non-owned (e.g. owned by CONTRACTOR's employees), leased or hired vehicles, in the minimum amount of \$500,000 combined single limit per occurrence for bodily injury and property damage. This insurance coverage shall not be required if vehicle use by CONTRACTOR is not a material part of performance of this Agreement and CONTRACTOR and COUNTY both certify to this fact by initialing here ____/____.

(3) Comprehensive or Commercial General Liability Insurance coverage in the minimum amount of \$1,000,000 combined single limit, including coverage for: (a) bodily injury, (b) personal injury, (c) broad-form property damage, (d) contractual liability, and (e) cross-liability.

(4) Professional Liability Insurance in the minimum amount of \$1,000,000.00 combined single limit, if, and only if, this Subparagraph is initialed by CONTRACTOR and COUNTY DMJ.

B. Other Insurance Provisions

(1) If any insurance coverage required in this Agreement is provided on a "Claims Made" rather than "Occurrence" form, CONTRACTOR agrees to maintain the required coverage for a period of three (3) years after the expiration of this Agreement (hereinafter "post agreement coverage") and any extensions thereof CONTRACTOR may maintain the required post agreement coverage by renewal or purchase of prior acts or tail

coverage. This provision is contingent upon post agreement coverage being both available and reasonably affordable in relation to the coverage provided during the term of this Agreement, For purposes of interpreting this requirement, a cost not exceeding 100% of the last annual policy premium during the term of this Agreement in order to purchase prior acts or tail coverage for post agreement coverage shall be deemed to be reasonable.

(2) All required Automobile and Comprehensive or Commercial General Liability Insurance shall be endorsed to contain the following clause:

“The County of Santa Cruz, its officials, employees, agents and volunteers are added as an additional insured as respects the operations and activities of, or on behalf of, the named insured performed under Agreement with the County of Santa Cruz.”

(3) All required insurance policies shall be endorsed to contain the following clause:

“This insurance shall not be canceled until after thirty (30) days prior written notice has been given to:

R. PATRICK MATHEWS, SOLID WASTE DIVISION MANAGER,
701 OCEAN STREET, ROOM 410
SANTA CRUZ, CA 95060

(4) CONTRACTOR agrees to provide its insurance broker(s) with a full copy of these insurance provisions and provide COUNTY on or before the effective date of this Agreement with Certificates of Insurance for all required coverages. All Certificates of Insurance shall be delivered or sent to:

PATRICK MATHEWS, SOLID WASTE DIVISION MANAGER,
701 OCEAN STREET, ROOM 410
SANTA CRUZ, CA 95060

7. EOUAL EMPLOYMENT OPPORTUNITY. During and in relation to the performance of this Agreement, CONTRACTOR agrees as follows:

A. The CONTRACTOR shall not discriminate against any employee or applicant for employment because of race, color, religion, national origin, ancestry, physical or mental disability, medical condition (cancer related), marital status, pregnancy, sex, sexual orientation, age (over 18), veteran status or any other non-merit factor unrelated to job duties. Such action shall include, but not be limited to the following: recruitment; advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training (including apprenticeship), employment, upgrading, demotion, transfer. The CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notice setting forth the provisions of this non-discrimination clause.

B. If this Agreement provides compensation in excess of \$50,000 to CONTRACTOR and if CONTRACTOR employs fifteen (15) or more employees, the following requirements shall apply:

(1) The CONTRACTOR shall, in all solicitations or advertisements for employees placed by or on behalf of the CONTRACTOR state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, ancestry, physical or mental disability, medical condition (cancer related), marital status, pregnancy, sex, sexual orientation, age (over 18), veteran status, or any other non-merit factor unrelated to job duties. In addition, the CONTRACTOR shall make a good faith effort to consider Minority/Women/Disabled Owned Business Enterprises in CONTRACTOR's solicitation of goods and services. Definitions for Minority/Women/Disabled Business Enterprises are available from the COUNTY General Services Purchasing Division.

(2) The CONTRACTOR shall furnish COUNTY Affirmative Action Office information and reports in the prescribed reporting format (PER 4012) identifying the sex, race, physical or mental disability and job classification of its employees and the names, dates and methods of advertisement and direct solicitation efforts made to subcontract with Minority/Women/Disabled Business Enterprises.

(3) In the event of the CONTRACTOR'S non-compliance with the non-discrimination clauses of this Agreement or with any of the said rules, regulations, or orders said CONTRACTOR may be declared ineligible for further agreements with the COUNTY.

(4) The CONTRACTOR shall cause the foregoing provisions of this Subparagraph 7B. to be inserted in all subcontracts for any work covered under this Agreement by a subcontractor compensated more than \$50,000 and employing more than fifteen (15) employees, provided that the foregoing provisions shall not apply to contracts or subcontracts for standard commercial supplies or raw materials.

8. INDEPENDENT CONTRACTOR STATUS. CONTRACTOR and COUNTY have reviewed and considered the principal test and secondary factors below and agree that CONTRACTOR is an independent contractor and not an employee of COUNTY. CONTRACTOR is responsible for all insurance (workers compensation, unemployment, etc.) and all payroll related taxes. CONTRACTOR is not entitled to any employee benefits. COUNTY agrees that CONTRACTOR shall have the right to control the manner and means of accomplishing the result contracted for herein.

PRINCIPAL TEST: The CONTRACTOR rather than COUNTY has the right to control the manner and means of accomplishing the result contracted for.

SECONDARY FACTORS: (a) The extent of control which, by agreement, COUNTY may exercise over the details of the work is slight rather than substantial; (b) CONTRACTOR is engaged in a distinct occupation or business; (c) In the locality, the work to be done by CONTRACTOR is usually done by a specialist without supervision, rather than under the direction of an employer; (d) the skill required in the particular occupation is

substantial rather than slight; (e) The CONTRACTOR rather than the COUNTY supplies the instrumentalities, tools and work place; (f) The length of time for which CONTRACTOR is engaged is of limited duration rather than indefinite; (g) The method of payment of CONTRACTOR is by the job rather than by the time; (h) The work is part of a special or permissive activity, program, or project, rather than part of the regular business of COUNTY; (i) CONTRACTOR and COUNTY believe they are creating an independent contractor relationship rather than an employer-employee relationship; and (j) The COUNTY conducts public business.

It is recognized that it is not necessary that all secondary factors support creation of an independent contractor relationship, but rather that overall there are significant secondary factors which indicate that CONTRACTOR is an independent contractor.

By their signatures to this Agreement, each of the undersigned certifies that it is his or her considered judgment that the CONTRACTOR engaged under this Agreement is in fact an independent contractor.

9. CONTRACTOR represents that its operations are in compliance with applicable County planning, environmental and other laws or regulations.

10. CONTRACTOR is responsible to pay prevailing wages and maintain records as required by Labor Code Section 1770 and following.

11. NONASSIGNMENT. CONTRACTOR shall not assign this agreement without the prior written consent of the COUNTY.

12. RETENTION AND AUDIT OF RECORDS. CONTRACTOR shall retain records pertinent to this Agreement for a period of not less than five (5) years after final payment under this Agreement or until a final audit report is accepted by COUNTY, whichever occurs first. CONTRACTOR hereby agrees to be subject to the examination and audit by the Santa Cruz County Auditor-Controller, the Auditor General of the State of California, or the designee of either for a period of five (5) years after final payment under this Agreement.

13. PRESENTATION OF CLAIMS. Presentation and processing of any or all claims arising out of or related to this Agreement shall be made in accordance with the provisions contained in Chapter 1.05 of the Santa Cruz County Code, which by this reference is incorporated herein.

14. ATTACHMENTS. This Agreement includes the following attachments EXHIBIT A, SCOPE OF WORK.

IN WITNESS WHEREOF, the parties hereto have set their hands the day and year first above written.

COUNTY OF SANTA CRUZ

CONTRACTOR
CH2M HILL ~~CALIFORNIA~~, INC.,

By: _____
Director of Public Works

By: *James D. Bentley*
VICE PRESIDENT

Address: P.O. BOX 12681
OAKLAND, CA 94604-268 1

Telephone: (5 10) 25 1-2888

APPROVED AS TO FORM:

By: *Samuel Taylor* 12/2/98
Chief Assistant County Counsel

DISTRIBUTION: Auditor-Controller
Contractor
Public Works

RPM:mg

CH2M



CH2M HILL
 2485 Natomas Park Drive
 Suite 600
 Sacramento, CA
 95833-2937
Tel 916.920.0300
Fax 916.920.8463

November 23 1998
 144751.CM.SS.18

Mr. Patrick Mathews
 County of Santa Cruz, Department of Public Works
 Solid Waste Division
 701 Ocean Street
 Santa Cruz, CA 95060

Subject: Scope of Work
 Santa Cruz County
 Solid Waste Projects
 1998 Contract

Dear Mr. Mathews:

CH2M HILL appreciates the opportunity to submit this scope of work and estimated costs for work associated with the Buena Vista Landfill. This scope of work addresses three primary tasks:

1. Development of a Master Development Plan for Buena Vista Landfill.
2. Construction Quality Assurance (CQA) during Module 6 construction.
3. Evaluation of Soil Stockpiling Potential of Watsonville Landfill as a temporary soil management area.

TASK 1 – COMPLETE REVISED MASTER DEVELOPMENT PLAN FOR BUENA VISTA LANDFILL

At the request of Santa Cruz County, we will complete a revised site development plan for the Buena Vista Landfill due to changes in cell sequencing necessitated by the ongoing soil management issues. The existing conceptual plan depicts three future cells, Modules 3, 4, and 5. Module 3 has been constructed and currently serves as the County's active cell. The configuration and sequence for the area of the site encompassed by Modules 4 and 5 must be revised. The revision will likely entail subdividing Module 5 into two phases, thus creating Modules 5 and 6. The scope of work associated with this task is described below.

Mr. Patrick Mathews
Page 2
November 23, 1998

Task 1.1 – Develop Conceptual Options

To initiate this task, CH2M HILL will meet with County staff to discuss cell development constraints, issues, and options. We will complete evaluation of options already considered. The intent will be to develop options that maximize waste capacity, minimize capital and operating costs, and promote refuse stability. Preliminary stability and airspace calculations will be performed as part of analyzing each option.

CH2M HILL will meet with County staff to discuss the conceptual site development options. The conceptual options will be presented in hand-drawn format with preliminary airspace and capital construction cost considerations. Basic advantages and disadvantages for each option will also be summarized. Based on this meeting, one option will be selected and finalized.

Task 1.2 – Prepare Site Development Plans

The following fundamental objectives will be incorporated into the site development plan:

- Maximize cost-effective airspace
- Control leachate generation
- Provide adequate separation of surface water and refuse
- Locate final cover drainage structures so that refuse settlement efficiently increases rather than decreases surface water flow gradients
- Develop a wide enough buffer around the landfill footprint perimeter to accommodate an access road, surface water conveyance facilities, and a utility corridor for LFG header pipes
- Develop an excavation plan and soils handling plan that reduces haul distance and multiple handling of soils, considering soil stockpile area constraints
- Select cost-effective liner and LCRS materials that promote refuse stability
- Consistency with the certified Buena Vista Landfill Environmental Impact Report

The site development plans will be presented on a series of drawings depicting the following for interim and final conditions:

- Base, interim, and final grades
- Fill sequencing
- Soil management plans
- LCRS layout
- Surface water control system layout
- LFG system layout
- Access roads layout
- Location of all major infrastructure elements
- Earthwork and fill quantities associated with each phase
- Implementation schedule

Mr. Patrick Mathews
Page 3
November 23, 1998

The soil management plans will address the quantity and approximate grading plans for soil excavation and fill, including the temporary soil conveyance system.

Calculations required to support the site development plan will be performed. These calculations include volume and site life estimations, surface water and erosion control, and stability. Each calculation will be summarized in a technical memorandum. The technical memoranda will include:

- A brief background regarding the design component
- A list of critical design criteria
- Assumptions, analytical parameters, and analytical methods
- Conclusions and recommended design details

Design calculations will be attached to each technical memorandum. The design calculations will be conceptual, i.e., enough detail will be included to develop a general understanding of the potential site development concerns and account for these concerns in the overall site design.

The drawings will be prepared using a computer-aided design and drafting (CADD) system such as Microstation. All airspace volume calculations will be subjected to CH2M HILL's standard quality control procedures as well as independent peer review by Sangeeta Lewis of Lewis Engineering. We will also have all volume calculations independently checked by a firm that specializes in this type of work. Review comments will be incorporated and two (2) copies of the final site development plans and technical memoranda and a complete set of reproducibles will be submitted.

Proposed Schedule

We estimate that this work can be completed in 8 to 10 weeks, allowing for meetings and review.

TASK 2 – CONSTRUCTION QUALITY CONTROL FOR MODULE 6

Introduction

This task entails providing construction quality assurance (CQA) services during construction of Module 6, the interim sedimentation basin, and the north soil stockpile at the Buena Vista Landfill. The proposed services include monitoring the Module 6 construction activities associated with:

- Additional clay stockpile testing and evaluation
- Final grading
- Subgrade preparation
- Compacted-clay liner placement

Mr. Patrick Mathews

Page 4

November 23, 1998

- Geosynthetic liner installation
- Drainage layer placement
- Geotextile filter installation (if required)
- Operations layer placement
- Leachate collection sump and associated mechanical systems

The construction of Module 6 includes a composite base liner (approximately 112,000 square feet (SF)) consisting of a 2-foot-thick compacted-clay liner with a maximum allowable in-place hydraulic conductivity of 1×10^{-7} centimeters/second (cm/s) overlain by an 80-mil thick high density polyethylene (HDPE) geomembrane liner. For estimating purposes, we have assumed that the side slope liner (approximately 30,000 SF) also consists of a 2-foot-thick compacted-clay liner with a maximum allowable in-place hydraulic conductivity of 1×10^{-7} cm/s overlain by a 80-mil thick HDPE geomembrane liner on prepared subgrade.

A 1-foot-thick blanket drainage layer will allow leachate collection with perforated HDPE collection pipes. The collection pipes will carry leachate to a perimeter collection sump along the west side of Module 6. Storm water runoff from the excavated areas will be diverted to the interim sedimentation basin. The project will also include construction of a soil stockpile with the excavated soils of Module 6.

The various CQA activities are divided into the following five main tasks:

Task 2.1 – Additional Clay Stockpile Evaluation

Task 2.2 – Preconstruction Services

Task 2.3 – Field Permeability Testing

Task 2.4 – CQA Services during Module 6, interim sedimentation basin, and north soil stockpile construction

Task 2.5 – Laboratory Testing

Task 2.6 – CQA Report

A discussion of the proposed CQA staff and the estimated level of effort required for CQA oversight is presented below. The proposed scope of work follows the discussion of the CQA Team.

CQA Team and Level of Effort

The field CQA team will consist of a CQA Officer, a CQA Field Monitor, and a Senior Reviewer. CH2M HILL will subcontract with Sangeeta Lewis of Lewis Engineering to be the CQA Officer. The CQA Officer will be responsible for oversight of construction

inspection and for providing guidance to the CQA Monitor. The CQA Monitor will be responsible for implementing the CQA Manual and will be on-site during the majority of construction activities. We have assumed that a total of 68 labor hours will be sufficient for Lewis Engineering to attend a total of six (6) weekly site meetings, provide part-time onsite CQA oversight and construction observation oversight.

We anticipate that one CH2M HILL CQA Monitor will be required to provide the required services. The total CQA Monitor hours have been estimated from an assumed level-of-effort and construction schedule. The total number of CQA Monitor hours was estimated assuming an approximately 6-week, 4-day construction schedule, 5-day workweeks, and 10-hour workdays. Our assumptions regarding construction duration and necessary CQA Monitor level of effort are provided in Table 1 below.

TABLE 1

Estimated Construction Duration and CQA Monitor Level-of-Effort

Construction Phase	Phase Duration (days)	CQA Monitor Involvement (hrs)
Preconstruction Meeting	1	8
Final excavation and grading, stockpiling, clay liner processing, subgrade fill and grading	10	30
Foundation layer and compacted-clay liner placement	10	100
Geomembrane installation	5	50
LCRS piping and sumps	2	20
LCRS granular drainage and operations layer	3	30
Leachate sump/trical panel and wiring installation	3	10
Totals	34 days = 6 weeks plus 4 days	248 hrs

Based on this assumed duration, the CQA Monitor will be required for a total of 248 hours during construction.

Some construction tasks may or may not overlap and the contractor may alter the construction schedule at any point during construction and/or weather may delay work progress. If the assumed construction schedule and/or work hours are different from the stated assumptions, the CQA field services costs presented in this proposal will likely change.

The level of CQA effort estimated in this proposal represents the minimal level of effort required to complete the scope of work described herein. Additional CQA staff may be required during construction of Module 6 depending on the number and type of equipment used by the Contractor, number of installation crews assigned, and the amount of geosynthetics and/or soil placed each day. CH2M HILL will provide sufficient CQA staff to perform the responsibilities outlined in this proposal and avoid delaying the Contractor's progress. If additional staff is required, CH2M HILL will notify the County prior to assigning additional CQA Monitors.

Others

CH2M HILL will contract with qualified and cost-competitive laboratories to perform geotechnical and geosynthetic laboratory testing.

Scope of Work

Task 2.1 – Additional Clay Stockpile Evaluation

The original scope of work for this task included obtaining soil samples at three (3) test pit locations. The number of test pits, and the number of samples, were increased to five (5) based on additional review of the available data. The number of laboratory tests was also increased. The current laboratory testing schedule for this task is provided in Table 2.

TABLE 2

Clay Stockpile Material Laboratory Testing

Test	ASTM Designation	Number of Tests
Bulk Density	D 127	5
Grain Size, Including Hydrometer	D 422	5
Maximum Density	D 1557	5
Atterberg limits	D 4318	5
Hydraulic Conductivity	D 5084	3
Interface Direct Shear	D 5321	2
Triaxial Shear	D 2850	2

Another additional cost item is the increased participation of Sangeeta Lewis of Lewis Engineering in support of the activities described in this subtask.

Task 2.2 – Preconstruction Services

Once the Construction Documents are finalized and the Advertisement for Bids and/or the Invitation to Bidders has been released, CH2M HILL will assist the County in addressing comments or issuing addenda, if necessary. We will also assist the County in conducting a pre-bid inspection and conference with perspective contractors, reviewing submitted bids and short-listing qualified contractors, and aiding the County in the selection of a qualified contractor for construction of Module 6. We have set aside 40 hours of professional time to respond to design-related questions from prospective bidders. We have also assumed that Sangeeta Lewis will represent CH2M HILL at the pre-bid meeting that will extend for a total of 8 hours (includes preparation, travel, and participation).

Task 2.3 – Field Permeability Testing

As required by California Code of Regulations, Title 27 Section 20324, field permeability testing of the clay liner material will be performed and is included as part of the scope of work for this proposal. Test pad construction and a Sealed Double Ring Infiltrometer (SDRI) test or an approved alternative will be completed before starting construction of the compacted clay liner. The test pad construction and the SDRI testing results will be used to evaluate if properly placed and compacted stockpiled clay liner material can achieve the necessary maximum hydraulic conductivity of 1×10^{-7} cm/s. The test fill pad will be constructed within the clay stockpile/staging area and will be approximately 20 ft by 20 ft in plan area and 3-feet thick. CH2M HILL assumes the County will construct the test fill pad. CH2M HILL will assist the County during construction of the test fill pad by conducting in-place density tests to verify that the pad is being constructed to the specified relative compaction and moisture conditions. Once the test fill pad construction is completed, we will conduct field permeability tests using a SDRI or an approved alternative to determine if the specified density/moisture-content/hydraulic-conductivity relationships (determined in laboratory tests) can be achieved in the field with compaction equipment and at specified lift thickness similar to conditions at the time of construction.

We have assumed that County staff at the landfill will record the majority of the necessary data on forms or in spreadsheets provided by CH2M HILL.

CH2M HILL will prepare a workplan for the SDRI testing. The workplan will include information for:

- Construction of the test pad
- SDRI set up and instrumentation
- Monitoring parameters and frequency
- Methodology for data reduction

Mr. Patrick Mathews
Page 8
November 23, 1998

At the completion of the SDRI testing, CH2M HILL will prepare a technical memorandum that summarizes the testing and associated results. After County review and comment, the technical memorandum will be transmitted to the RWQCB for review and comment.

Task 2.4 - CQA Services During Module 6 Construction

CQA services during construction will consist of CQA observation and field tests. CH2M HILL will provide CQA services primarily during construction of Module 6 in accordance with the contract documents and CQA Manual. (Note: CQA services for the interim sedimentation basin and the north soil stockpile will be provided if the CQA Monitor is already on site for Module 6 construction activities.) These services will include:

- CQA observations and documentation of excavation, stockpiling, and grading of Module 6, the interim sedimentation basin, and the north soil stockpile
- Observation and testing of clay liner placement and compaction
- Observation and testing of the geosynthetics installation including HDPE geomembrane and geotextile
- Observation of granular drainage layer and protective operations layer placement
- Observation of installation of leachate collection pipes, collection sumps, and pumps

The CQA Monitors will review quality control submittals, observe soil and geosynthetic material handling and placement, perform required field testing, obtain required soil and geosynthetic samples and organize laboratory testing. The CQA Monitor and Officer will review record drawings prepared by the Geosynthetic Subcontractor and Earthwork Contractor and will obtain record information required to prepare the CQA Report.

In addition, the CQA Monitor shall be cognizant of elevation, location, and dimensional requirements as specified in the contract documents. He shall make periodic checks of these requirements during the progress of the work. The checks will be limited by the facilities that the CQA Monitor has access. County surveyors will set initial line and grade control. Line and grade control during construction shall be the responsibility of the Contractor and shall be based on the controls set by the County's surveyors.

The CQA Monitor will prepare daily reports outlining monitoring activities. For soil and rock materials, the CQA Monitor's daily log will record the estimated amount of material placed, location and number of tests performed and test results, moisture conditioning, types and quantity of equipment used and any notable material or procedural change.

During earthwork construction the CQA Monitor will:

- Perform required density tests using a nuclear moisture/density gauge
- Confirm nuclear testing using the sand cone method and/or the army corps sample method

- Obtain soil samples
- Send samples to a third party laboratory for testing
- Observe construction procedures
- Monitor soil excavation, stockpiling and importing for material changes
- Observe soil behavior for signs of desiccation, over-watering, or soil pumping

CH2M HILL will provide an onsite microwave oven for moisture content confirmation testing. In addition to performing CQA inspections and tests during construction of the low permeability soil liner, the CQA Monitor will also observe the efforts of the Earthwork Contractor and Geosynthetics Subcontractor to protect the compacted soil liner from damage and/or desiccation after placement.

During placement of the HDPE geomembrane, the CQA Monitor will observe the condition of the subgrade surface for Module 6 prior to liner installation, and check the Geosynthetic Subcontractor's acceptance by completing the subgrade acceptance surface forms. In addition, the CQA Monitor will observe and record results of all nondestructive testing of the geomembrane and seams, trial weld and destructive seam sample testing, identify destructive sample and repair locations and verify placement of geomembrane in the anchor trenches. The Geosynthetics Installer, under the observation of the CQA Monitor, will perform the field seam and trial weld testing. The onsite testing will be performed in addition to testing of samples sent to a third-party testing laboratory by the CQA Monitor. Surveying of panel locations and all test locations will be the responsibility of the Contractor.

For geosynthetic materials, the CQA Monitor's daily log will include:

- Geosynthetics delivery logs and lot information, panel numbers and lengths placed
- Seams and seam length completed and approved
- Trial weld test information and results
- Location of destructive sampling
- Personnel information including welders used, types and quantity of equipment used and measures taken to protect unfinished areas overnight

Failed seams and/or damaged material will also be identified in the daily repair logs. All repairs will be numbered and information such as repair location, type of repair, and test results will be recorded. Other information such as problems or concerns with regard to operations, weather conditions, work schedule and discussions with the contractor or owner will also be noted. A photographic log of the construction will be compiled and maintained.

The CQA Monitor and CQA Officer will attend progress meetings. For cost estimating purposes, we have assumed this would involve six (6) trips (assumed 8 hrs. per trip) to the site by the CQA Officer for approximately 48 hours.

Upon completing placement of the geomembrane liner, the CQA Monitor will perform inspection duties related to the placement and installation of the LCRS. Duties performed by the CQA Monitor during the LCRS installation include inspection of collection pipe and sump installation, sampling of granular drainage and geosynthetic materials, sending samples to a third party laboratory for testing, and verifying seaming and repairs.

Before any layer or surface of material is covered with a successive layer or the protective operations layer a post-construction inspection will be conducted by the CQA Monitor. The CQA Monitor will approve all materials and installation before placement of the next material layer. The post-construction inspection of each layer will consist of a review of field logs to ensure all relevant information has been recorded and all components have been approved and/or tested and an inspection of all repairs is performed by either the Earthwork Contractor or Geosynthetics Installer. The scope of work for this proposal does not include soils testing of the excavated and graded subgrade materials or installation of lysimeters.

Task 2.5 – Laboratory Testing

Laboratory testing during construction will consist of earth and geosynthetic materials laboratory testing. Each of these areas is described in more detail below.

Subtask 2.51 - Earth Materials Laboratory Testing

Earth materials will be tested during construction in accordance with the CQA Manual. The CQA Monitor will oversee sampling and testing the earth materials. The type and frequency of tests required will be outlined in the CQA Manual, and are based on the quantity of material to be placed. The CQA Monitor will conduct necessary conformance sampling and testing to check the Contractor's results at the frequency stated in the CQA Manual. An estimate of earth materials to be placed during construction is provided in Table 3 and testing frequencies are provided in Table 4.

Test pad construction and field permeability test results obtained during Task 2.2 will provide field permeability data for construction of the clay base liner.

Subtask 2.5.2 - Geosynthetic Materials Laboratory Testing

The CQA Monitor will oversee laboratory testing of the geomembrane and geotextile materials. The type and frequency of tests required will be outlined in the CQA Manual. An estimate of the geosynthetic materials to be installed during construction is provided in Table 3, and the testing frequencies are presented in Table 4.

In addition to the geomembrane acceptance testing, the geomembrane seams will be sampled and tested to verify that constructed seams meet the specified strength requirements. Seam testing will be accomplished using nondestructive and destructive sampling and testing methods. The nondestructive testing of geomembrane seams will be observed and recorded as part of the CQA Monitor's duties. The destructive seam sampling locations will be identified and recorded by the CQA Monitor.

The destructive seam samples will be packaged and shipped overnight to a third party laboratory. The laboratory will provide results within 24 hours of receiving the samples. This rapid turnaround is essential in providing efficient geomembrane installation and will allow final acceptance of the geomembrane installation soon after construction completion.

Task 2.6 - CQA Report

CH2M HILL will prepare a CQA Report once construction of Module 6 is complete. This report will summarize the observations, test results, and interpretations. The interpretations are professional opinions and judgments based on CH2M HILL's knowledge, observations, test data, and information supplied by the Owner, manufacturer, and Contractor. The CQA report will consist of:

- Summaries of all construction activities
- Record drawings showing the locations where samples were obtained and where repairs were made for each layer of the lining system; the Record Drawings will be based upon Contractor supplied as-built construction drawings
- Summaries of significant construction problems and resolutions or changes in the design
- Summaries of geosynthetics test results (destructive and nondestructive, including laboratory tests and field tests, and third party laboratory test results)
- Seal and signature of a professional engineer registered in the State of California

To allow submission of the CQA Report shortly following construction completion, much of the documentation for the report will be prepared concurrently with CQA observation activities.

Schedule

The schedule for CQA services will be dependent on the construction schedule. CH2M HILL will provide CQA personnel during all crucial periods including excavation and construction of the clay liner, geosynthetic components, and LCRS. Currently, it is anticipated that final excavation of Module 6 and the sedimentation basins will begin in

Spring 1999. Construction duration has been assumed to extend for just under 7 weeks. This includes any remaining excavation of Module 6, interim sedimentation pond excavation, and liner system construction.

A draft CQA Report will be provided to the County for review within ~~four~~ six weeks of construction completion. Within 2 weeks after receipt of the County's review comments, responses to the comments will be incorporated and the CQA Report finalized and stamped by a California registered professional engineer. A total of three (3) copies of the final report will be provided to the County (one copy is required to be maintained at the landfill) and one copy to the RWQCB.

TASK 3 – EVALUATE SOIL STOCKPILING POTENTIAL OF WATSONVILLE LANDFILL

A portion of the existing Watsonville Landfill site southwest of Buena Vista Landfill will be evaluated as a potential site for temporary soil stockpiling. This evaluation will be conceptual in nature and will generally focus on the technical aspects of placing the stockpiled soils on the site.

Task 3.1 -Conceptual Evaluation

CH2M HILL will perform a conceptual evaluation of:

- Access constraints, especially over the existing Union Pacific rail easement
- Capitol and operating costs considerations, including the need to create viable access into the site and the haul distance from the Buena Vista Landfill
- Grading and phasing issues
- Geotechnical issues
- Surface water drainage issues
- Soil volume considerations
- Air quality impacts
- Noise impacts
- Slope stability impacts

We will work with County staff to properly frame the issues and discuss our draft findings.

Task 3.2 -Technical Memorandum

CH2M HILL will summarize the evaluation of the Watsonville Landfill site for temporary soil stockpiling in a technical memorandum. The technical memorandum will describe the basis of our evaluation and provide results, conclusions, and recommendations. All analysis and calculations performed during the evaluation will be included. The design calculations will be conceptual, i.e., enough detail will be included to develop a general understanding of potential concerns.

Any necessary drawings will be prepared using a CADD system such as Microstation. All airspace volume calculations will be subjected to CH2M HILL's standard quality control procedures as well as independent peer review by Sangeeta Lewis of Lewis Engineering. Review comments will be incorporated and two (2) bound copies and one unbound, reproducible copy of the final technical memorandum will be submitted.

Proposed Schedule

We estimate that this work can be completed in 6 to 8 weeks, allowing for meetings and review.

ESTIMATED COSTS

A summary of estimated costs for each task is provided in Table 5. The total estimated cost for the three tasks identified in this proposal is \$173,015. This cost estimate represents CH2M HILL's best estimate of the level of effort and the cost of completing the described scope of services based on the information available at this time. The estimated cost summarized in Table 5 includes both CH2M HILL and Lewis Engineering. Expenses, including labor and expenses for our subconsultant, Lewis Engineering, will be billed at a unit rate of \$85 per hour plus 12 percent.

Task 1 – Complete Revised Master Development Plan for Buena Vista Landfill

CH2M HILL proposes to complete the revision of the Master Development Plan on a time-and-materials basis. We estimate that the fee for the scope of work presented in this proposal is \$42,725.

Task 2 – Construction Quality Control for Module 6

The cost of CQA observation and testing is directly related to the amount of time required by the Contractor to complete the work and the level of effort used. CH2M HILL proposes to perform this project on a time-and-materials basis. We estimate that the fee for the scope of work presented in this proposal is \$103,405. This estimated fee is based on the quantity and duration estimates and assumptions described in this proposal. CH2M HILL will work closely with the County and the Contractor, to control construction and observation costs during each phase of construction

The construction schedule and activities may overlap and/or the duration may be shortened or extended depending on Contractor work efforts and the weather. CH2M HILL will provide adequate staffing to meet the actual work effort provided by the Contractor to avoid delaying project work. If the field staffing requirements exceed the anticipated levels outlined in this proposal, CH2M HILL will notify the County of the change in work scope and cost before assigning additional field personnel.

Mr. Patrick Mathews
Page 14
November 23, 1998

Task 3 – Evaluate Soil Stockpiling Potential of Watsonville Landfill

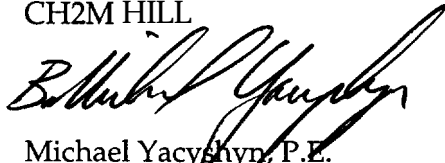
CH2M HILL proposes to complete the evaluation of the Watsonville Landfill as a potential soil-stockpiling site on a time-and-materials basis. We estimate that the fee for the scope of work presented in this proposal is \$26,885.

CLOSURE

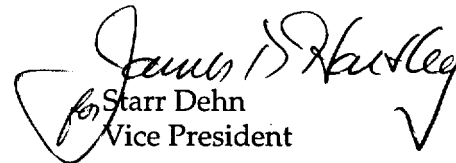
We appreciate the opportunity to continue to work with you on this project. If you have any questions, please call Michael Yacyshyn at (916) 920-0212, ext. 239.

Respectfully submitted,

CH2M HILL



Michael Yacyshyn, P.E.
Project Manager



for Starr Dehn
Vice President

Attachments

Contract_Amendment_Proposal_01.doc

cc: Sangeeta Lewis, Lewis Engineering
Marielle Coquia, CH2M HILL/SCO

Table 3**Estimate of Soil and Geosynthetic Material Quantities**

Material	Quantity
Geomembrane (base and side slopes)	142,000 sf
Geotextile (base only)	112,000 sf
Excavation/Stockpiling	330,000 cy
Clay Liner (base)	8,300 cy
Clay Liner (side slope)	2,200 cy
Drainage Layer	4,150 cy
Operations Layer	8,300 cy
Gravel Fill for Leachate Collection Pipes and Sump	200 cy

Table 4
Testing Frequency

Test	No. of Tests
<i>Soil and Rock Material</i>	
Soil Classification (ASTM D 2487; D2488)	12
Maximum Density (ASTM D 1557)	3
Moisture Content (ASTM D 2216)	10
Particle Size (ASTM D 422)	10
Particle Size (ASTM D 1140)	12
Atterberg limit (ASTM D 4318)	10
Permeability (ASTM D 5084)	I 4
<i>Geosynthetics</i>	
Specific Gravity (ASTM D 792, Method A)	3
Seam Tests (ASTM 4437)	1.5
Thickness (ASTM D 751)	-
Tensile Properties (ASTM D 638)	-
Carbon Dispersion (ASTM D 3015)	3
Carbon Black Content (ASTM D 1603)	3
Interface Friction Testing (ASTM D 5321)	2

Table 5
Summary of Estimated Costs

Task	Estimated Fee
Complete Revised Master Development Plan for Buena Vista Landfill	\$42,725
Construction Quality Control for Module 6	\$103,405
Evaluate Soil Stockpiling Potential of Watsonville Landfill	\$26,885
Total	\$173,015

**TABLE 6
CH2M HILL
1998 HOURLY CHARGE RATES
for
PROFESSIONALS AND TECHNICIANS***

<u>Classification</u>	<u>Hourly Rate</u>
E8	\$153.95
E7	\$153.95
E6	\$153.95
E5	\$126.90
E4	\$109.20
E3	\$91.50
E2	\$80.05
E1	\$72.80
E0	\$65.50
T5**	\$99.85
T4**	\$75.90
T3**	\$69.65
T2**	\$58.25
T1**	\$52.00
TA**	\$43.65
Office**	\$50.95

* - Unit labor rates may change after January 1, 2000. A 30-day notification will be provided to the County prior to any rate changes.

** - Three percent additive factor for overtime.

ppv7\05.21.98

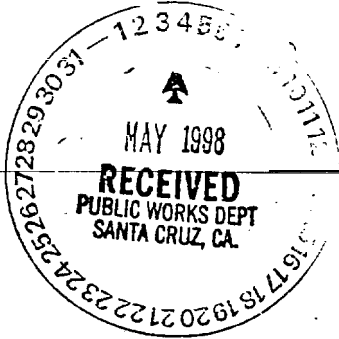
ACORD CERTIFICATE OF INSURANCE

DATE (MM/DD/YY)
04/30/98

PRODUCER
J&H MARSH & McLENNAN
1225 17TH STREET SUITE 2100
DENVER CO 80202

ATTN PAULA DELEON
15114-01234 SFO2M SFO

INSURED
CH2M HILL, INC.
1111 BROADWAY
SUITE 1200
OAKLAND, CA 94607-4046



THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

COMPANIES AFFORDING COVERAGE

COMPANY A	ZURICH INSURANCE COMPANY	243
COMPANY B	NATIONAL UNION FIRE INSURANCE COMPANY	
COMPANY C	AMERICAN GUARANTEE AND LIABILITY INSURANCE CO.	
COMPANY D		

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN. THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO TR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> OWNER'S & CONTRACTOR'S PRO1 <input checked="" type="checkbox"/> \$250,000 SIR	GLO8378563-03	05/01/98	05/01/99	GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 PERSONAL & ADV INJURY \$ 750,000 EACH OCCURRENCE \$ 750,000 FIRE DAMAGE (Any one fire) \$ 750,000 MED EXP (Any one person) \$
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS	BAP83785 16-03 (AOS) TAP8378560-03 (TX) BAP8378561-03 (VA) MAP8378562-03 (MA)	05/01/98 05/01/98 05/01/98 05/01/98	05/01/99 05/01/99 05/01/99 05/01/99	COMBINED SINGLE LIMIT \$,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE \$
	GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY EA ACCIDENT \$ OTHER THAN AUTO ONLY: EACH ACCIDENT \$ AGGREGATE \$
B	EXCESS LIABILITY <input checked="" type="checkbox"/> UMBRELLA FORM <input type="checkbox"/> OTHER THAN UMBRELLA FORM	BE9322574	05/01/98	05/01/99	EACH OCCURRENCE \$ 2,000,000 AGGREGATE \$ 2,000,000 \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY THE PROPRIETOR/ PARTNERS/EXECUTIVE OFFICERS ARE: <input checked="" type="checkbox"/> INCL <input type="checkbox"/> EXCL	WC8378566-04 WC8378565-03 WC8378564-04(CA)	05/01/98 05/01/98 05/01/98	05/01/99 05/01/99 05/01/99	<input checked="" type="checkbox"/> STATUTORY LIMITS EACH ACCIDENT \$ 1,000,000 DISEASE - POLICY LIMIT \$ 1,000,000 DISEASE - EACH EMPLOYEE \$ 1,000,000
	OTHER				

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS (LIMITS MAY BE SUBJECT TO RETENTIONS)
 PROJECT NO. 136056 CLIENT SERVICE MANAGER: SERGE TERENTIEFF/SFO.
 DESCRIPTION: PROFESSIONAL AND TECHNICAL SERVICES PERFORMED FOR BUENA VISTA AND BEN LOMOND LANDFILLS.
 COUNTY OF SANTA CRUZ, ITS OFFICIALS, AGENTS, EMPLOYEES AND VOLUNTEERS AND NAMED AS ADDITIONAL INSURED AS THEIR INTEREST MAY APPEAR AS PER BLANKET ENDORSEMENT TO THE GENERAL LIABILITY POLICY. (SEE ATTACHED)

CERTIFICATE HOLDER

COUNTY OF SANTA CRUZ
ATTN PATRICK MATHEWS
701 OCEAN STREET ROOM 410
SANTA CRUZ CA 95060-4070

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL SEND BY MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT,

AUTHORIZED REPRESENTATIVE

Raymond A. Leonard

38

ADDITIONAL INFORMATION

ISSUE DATE (MM/DD/YY)
04/30/98

PRODUCER

J&H MARSH & McLENNAN
1225 17TH STREET SUITE 2100
DENVER CO 80202

ATTN PAULA DELEON
15114-01234 SFO2M SFO

CERTIFICATE HOLDER

COUNTY OF SANTA CRUZ
ATTN PATRICK MATHEWS
701 OCEAN STREET ROOM 410
SANTA CRUZ CA 95060-4070

249

INSURED

CH2M HILL, INC.
1111 BROADWAY
SUITE 1200
OAKLAND, CA 94607-4046

TEXT

THE COUNTY OF SANTA CRUZ, ITS OFFICIALS, EMPLOYEES, AGENTS AND VOLUNTEERS ARE ADDED AS ADDITIONAL INSUREDS, AS THEIR INTEREST MAY APPEAR, AS RESPECTS THE OPERATIONS AND ACTIVITIES OF, OR ON BEHALF OF, THE NAMED INSURED PERFORMEND UNDER AGREEMENT WITH THE COUNTY OF SANTA CRUZ. COVERAGE PROVIDED BY THE ABOVE POLICIES SHALL BE PRIMARY.

ACORD CERTIFICATE OF INSURANCE

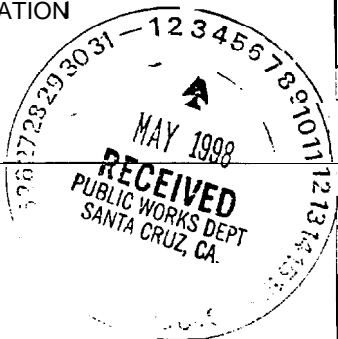
800880

DATE (MM/DD/YY)
04/30/98

PRODUCER
VAN GILDER INSURANCE CORPORATION
700 BROADWAY, SUITE 1000
DENVER, COLORADO 80203

15114-00005 SFO SFO

INSURED
CH2M HILL, INC.
1111 BROADWAY
SUITE 1200
OAKLAND, CA 94607-4046



THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

COMPANIES AFFORDING COVERAGE

COMPANY A	SECURITY INSURANCE CO OF HARTFORD	
COMPANY B	RPM	250
COMPANY C	ACCT File	
COMPANY D		

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR <input type="checkbox"/> OWNER'S & CONTRACTOR'S PROT				GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ PERSONAL & ADV INJURY \$ EACH OCCURRENCE \$ FIRE DAMAGE (Any one fire) \$ MED EXP (Any one person) \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> AU OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS				COMBINED SINGLE LIMIT \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE \$
	GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN AUTO ONLY. EACH ACCIDENT \$ AGGREGATE \$
	EXCESS LIABILITY <input type="checkbox"/> UMBRELLA FORM <input type="checkbox"/> OTHER THAN UMBRELLA FORM				EACH OCCURRENCE \$ AGGREGATE \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY THE PROPRIETOR/PARTNERS/EXECUTIVE OFFICERS ARE: <input type="checkbox"/> INCL <input type="checkbox"/> MCL				STATUTORY LIMITS EACH ACCIDENT \$ DISEASE. POLICY LIMIT \$ DISEASE - EACH EMPLOYEE \$
A	OTHER PROFESSIONAL LIABILITY	SPL701338	05/01/98	05/01/99	\$1,000,000 EACH CLAIM AND IN THE AGGREGATE

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS (LIMITS MAY BE SUBJECT TO RETENTIONS)

PROJECT NO. 136056 CLIENT SERVICE MANAGER: SERGE TERENTIEFF/SFO.
 DESCRIPTION: PROFESSIONAL AND TECHNICAL SERVICES PERFORMED FOR BEUENA VISTA AND BEN LOMOND LANDFILLS.
 *FOR PROFESSIONAL LIABILITY COVERAGE, THE AGGREGATE LIMIT IS THE TOTAL INSURANCE AVAILABLE FOR CLAIMS PRESENTED WITHIN THE POLICY PERIOD FOR ALL OPERATIONS OF THE INSURED. THE LIMIT WILL BE REDUCED BY PAYMENTS OF INDEMNITY AND EXPENSE.

CERTIFICATE HOLDER

COUNTY OF SANTA CRUZ
 ATTN PATRICK MATHEWS
 701 OCEAN STREET ROOM 410
 SANTA CRUZ CA 95060-4070

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ~~EXEMPT~~ ~~BY~~ ~~MAIL~~ 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, ~~BUT KNOWING TO MAIL EQUALLY NOT BEING THE PURPOSE OF THIS CERTIFICATE~~

AUTHORIZED REPRESENTATIVE

Velma
 © ACORD CORPORATION 1993

38