



**A-E AGREEMENT**

**PROJECT TITLE: GEOTECHNICAL INVESTIGATION UPDATE AND PROJECT DESIGN FOR ZONE 1, PHASE D GROUNDWATER PROTECTION COMPOSITE LINER PROJECT AT THE PRIMA DESHECHA LANDFILL**

This Agreement #MA-299-14010492 for the Geotechnical Investigation Update and Project Design for Zone 1, Phase D Groundwater Protection Composite Liner Project at the Prima Deshecha Landfill (this "Agreement") is hereby entered into this \_\_\_ day of \_\_\_\_\_, 20\_\_ ("Effective Date") and is by and between the County of Orange, a political subdivision of the State of California, by its OC Waste & Recycling, (the "County") and Tetra Tech BAS, Inc., a licensed professional Architect/Engineering firm of the State of California (the "A-E"), with a principal office located at 1360 Valley Vista Drive, Diamond Bar, CA 91765.

**RECITALS**

WHEREAS, County desires to contract for the Geotechnical Investigation Update and Project Design for Zone 1, Phase D Groundwater Protection Composite Liner Project at the Prima Deshecha Landfill, as more fully described in Exhibit A, Scope of Services (hereinafter "Services"); and

WHEREAS, A-E is qualified and willing to render the Services as desired by the County;

NOW, THEREFORE, for and in consideration of the professional services and mutual promises to be performed for the County by the A-E in connection with the Services and the compensation to be paid for such Services and mutual promises by the County, all as herein provided, the County and A-E agree as follows:

**1. Retainer**

a. County does hereby retain A-E to perform the Services as hereinafter specified.

b. A-E is an engineering firm and will perform the Services provided for herein in association with the following Team Members: Geo-Logic Associates, GMU Technical, Inc., LSA Associates and Dr. Timothy D. Stark. A-E and the principals of the Team Members are duly registered under the laws of the State of California.

A-E Principals assigned to perform the Services under this Agreement are:

Bryan A. Stirrat	Principal in Charge
Christine Arbogast	Project Manager

Other key professionals assigned by A-E to the Services and their respective assignments have been approved by County and are shown in Exhibit B. During the term of this Agreement, neither A-E nor Team Members will substitute others for the named key professionals approved by County without written approval of the Director, or designee (the "Director") of OC Waste & Recycling. If a designated professional fails to perform satisfactorily, upon written notice from OC Waste & Recycling, A-E shall remove that person from the Task and replace that person with one acceptable to OC Waste & Recycling.

For the purposes of this Agreement, "Team Members" shall mean independent Architect/Engineers, whether individuals or companies, hired directly by A-E to assist in the performance of any and all aspects of the Services under this Agreement. Team Members listed above may only be substituted by mutual agreement of A-E and the Director. Nothing contained in this Agreement shall create any contractual relations between County and any Team Member employed by A-E in connection with the Services.

A-E shall be fully responsible and liable for the work of its employees, all Team Members and sub-contractors of A-E performing Services under this Agreement. All references to A-E responsibilities and duties under this Agreement shall be deemed a reference to Team Members and sub-contractors. A-E shall ensure that all Team Members and sub-contractors are aware of the terms of this Agreement and comply fully with all such terms. A-E shall have no liability for work by A-E independently contracting with County, except insofar as such liability arises due to A-E's performance of Services under this Agreement.

A-E and its Team Members shall exercise that degree of skill and diligence normally employed by professional engineers or A-E performing the same or similar services. A-E shall be given a reasonable period in which to re-perform, without additional compensation, any services not meeting this standard, after which time County may, at its option, claim damages for breach of this Agreement for any services rendered by the A-E which do not meet the standard.

c. Prohibition against Subcontracting or Assignment

The experience, knowledge, capability, and reputation of the A-E, its principals and employees were the substantial inducement for the County to enter into this Agreement. Therefore, other than the Team Members specified herein, the A-E shall not contract with any other person or entity to perform in whole or in part the Services required hereunder without the express written approval of the Director. In addition, neither this Agreement, nor any portion thereof, nor any interest herein may be transferred, assigned, conveyed, hypothecated, delegated, or encumbered voluntarily or by operation of law, whether for the benefit of creditors or otherwise, without the prior written approval of the County.

Transfers restricted hereunder shall include the transfer to any person or group of persons acting in concert of more than twenty-five percent (25%) of the present ownership and/or control of A-E, taking all transfers into account on a cumulative basis. In the event of any such unapproved transfer, including any bankruptcy proceedings, this Agreement shall be void. No approved transfer

shall release the A-E or any surety of A-E of any liability hereunder without the express consent of the County.

## 2. Services

### a. Description of Services

The scope of services under this Agreement is those specified in Exhibit A, Scope of Services, which is attached hereto and incorporated herein by this reference. Individual Services performed under this Agreement shall be completed in accordance with a Task Order issued by the Director, as fully expressed in the Scope of Services. Final invoicing must be received within 60 days upon completion of final task.

### b. Project Criteria and Standards

Services performed hereunder, including but not limited to the services of A-E and Team Members, shall be performed with that degree of skill, care, diligence and generally accepted professional standards as practiced by similarly situated architectural, mechanical, electrical, structural and civil services firms, and as expeditiously as is consistent with professional skill, diligence and care and the orderly progress of the services. All work, of any kind, shall conform to and be in compliance with all applicable codes, laws, ordinances, regulations, and restrictions. Except as otherwise expressly provided herein, A-E shall: (1) furnish all labor, supervision, equipment, tools, testing devices, provide all of the consumable materials, and each and every item of expense specified herein required to complete the services as specified in Exhibit A, Scope of Services; (2) perform all services with promptness and diligence so that the work may commence and may be completed in a timely manner; (3) properly perform all Services specified herein; and (4) have full control and direction over the mode and manner of performing the Services covered by this Agreement. All Services are to be performed wholly at the risk of the A-E, and the A-E shall take all precautions for the proper and safe performance thereof. Nothing in this Agreement shall be construed to be an assumption of responsibility by A-E for any pre-existing site condition.

All work shall be performed in accordance with the most current criteria and standards, which may include, but are not limited to:

- Public Contract Code of the State of California
- Resource Conservation and Recovery Act, Subtitle D
- California Code of Regulations Title 27 Environmental Protection--Division 2, Solid Waste
- California Code of Regulations Title 24, California Building Standards Code
- South Coast Air Quality Management District Rules
- OC Public Works Standard Plans
- Orange County Grading Manual and Excavation Code
- OC Waste & Recycling Regulatory Compliance Requirements (see Exhibit E)

- Others may include: APWA Standard Specifications, Waste Discharge Requirements and California Environmental Quality Act, as well as instructions set forth by the Director of OC Waste & Recycling or designee.
- Safety and Health Laws and Regulations

A-E shall prepare a Health and Safety Plan (“H&SP”) in compliance with all local, municipal, State, and Federal health and safety laws, orders, and regulations applicable to A-E’s operations in the performance of the Services. While on the premises of County, A-E and A-E’s employees, Team Members, and agents shall comply with the Occupational Safety and Health Act and any applicable State-approved plan, and shall ensure that all A-E’s employees, Team Members, and agents have a safe place of work on the premises of County.

The H&SP shall be submitted to County within ten (10) calendar days after the effective Agreement date. The Notice to Proceed with any Task Order under this Agreement will be contingent upon receipt of an H&SP acceptable to County’s OC Waste & Recycling Safety Officer or designee. It is County’s intention to return its comments within ten (10) calendar days after receipt of the H&SP.

A-E shall be solely and completely responsible for conditions including safety of all persons and property during the performance of the Services. County’s acceptance of or concurrence with A-E’s H&SP does not relieve or transfer any such responsibilities to County.

d. Laws to be Observed

In addition to those specified or referred to above or otherwise herein, A-E shall be familiar with and, at all times, observe and comply with but not limited to the jurisdiction of the County of Orange, Local Enforcement Agency, Regional Water Quality Control Board, South Coast Air Quality Management District, and all Federal, State, and local laws, ordinances, and regulations in any manner affecting the conduct of its performance of this Agreement.

e. Scheduling, Coordination, and Reporting

A-E shall be responsible for preparing documents as outlined in Exhibit A. This includes negotiating with other public agencies and private parties and performing miscellaneous items in connection with the Services specified within this Agreement.

A-E shall allow at least ten (10) working days after submittal of deliverables for County review. In planning work, A-E should anticipate and allow for said County review of each submittal required in Exhibit A. A-E shall meet with County’s staff, when required, to review progress of work, adherence to progress schedule, coordination of work, scheduling of presentations or coordination meetings, if needed, and to resolve any problems that may develop.

The A-E shall be responsible for providing written minutes of all Project Meetings attended by the A-E or its designee and County representatives. A copy of the minutes shall be sent to the County Contract Administrator or designee for concurrence within three (3) working days of each meeting.

A-E shall submit a progress report of each month's activities by the Wednesday of the third week of the following month to County's OC Waste & Recycling. Each monthly progress report shall be a concise summary of Services information and data prepared for the use of County's OC Waste & Recycling project management personnel. A-E shall complete all authorized Tasks, as outlined in the Scope of Services and obtain all approvals of County as stipulated in the deliverable plan and agreed upon herein. The progress report shall include the following items as appropriate and as directed by the Scope of Services:

- Narrative Summary
  - Highlights
  - Major decisions
  - Major activities
  - Milestones reached on each task
  - Progress achieved compared to planned progress
- Areas of concern and corrective action taken or planned
- Overall A-E project progress
- Overall progress of procurement package preparation (if any)
- Overall progress of work being managed by A-E (if any)
- Revisions to Scope of Services as necessary to address change orders, delays and actual expenditures.

In the event A-E fails to complete the work in a timely and professional manner, County shall have the option of completing the work with its own force or under agreement with another firm. The time allowed for A-E to complete the work pursuant to this Agreement or the applicable Task Order may be extended by the Director (for an additional period of time determined by the Director) for time delay created by job conditions or other conditions without fault or negligence of the A-E.

The A-E shall notify the OC Waste & Recycling Project Manager ("PM") and Deputy Director in writing when expenditures against the contract reach 75% of the total dollar limit of the contract. County will not be responsible for any expenditure overruns and will not pay for work exceeding the total dollar limit of the contract unless an amendment to cover those costs has been issued by the County. This notification must come within 3 working days of receipt of invoice that is within the notification limit.

All extra work resulting in an increase in the Contract total ceiling amount shall be authorized by written amendment to this Contract. Said modification shall be issued by the County of Orange, Purchasing Agent or his designee and maybe subject to approval by the Orange County Board of Supervisors.

f. Presentations

When public presentations are called for, OC Waste & Recycling staff will schedule and/or arrange for such presentations and will provide introduction and assistance. A-E shall be called upon to present public presentation, be responsible for preparation of exhibits and visual aids for oral presentation. Any recommendations to be made in the presentation shall have prior concurrence of OC Waste & Recycling staff.

g. Approvals of Other Agencies and Entities

A-E shall assist OC Waste & Recycling in completing the review process with the appropriate local jurisdictions and obtain on OC Waste & Recycling' behalf all regulatory agencies' approval, and, as necessary, in interacting with concerned responsible entities.

h. Ownership of Documents, Equipment and Materials

All test data, survey results, computer database, models and renderings such as drawings, designs, specifications and other incidental architectural and engineering work, documentation, equipment, or materials prepared by the A-E in connection with the performance of Services furnished hereunder shall be and remain the property of County, including all copyrights, rights of reproduction and other interests relating thereto, and shall be surrendered to County upon request of OC Waste & Recycling, or may be used by County, as County may require, without any additional cost to County.

A-E hereby assigns to the County all rights throughout the world in perpetuity in the nature of copyright, trademark, patent, and rights to ideas in and to all versions of the plans and specifications now or later prepared by A-E in connection with any Services provided under this Agreement. The A-E agrees to refrain from taking any actions which would impair said rights. The County may reuse such documents for future work of any project wherein A-E provided Services under this Agreement and for future projects provided that the A-E has been fully compensated for the Services performed according to the terms of this Agreement and, with respect to future projects, provided the A-E is indemnified against any liability that may occur as a result of such reuse. The County shall not refer to the A-E without its consent in any published materials referring to such other projects and it shall not permit parties other than the County to use such work.

i. Final Mapping.

A-E shall deliver the final mapping in digital format conforming to the latest AutoCAD version being used by OC Waste & Recycling or in a version as specified by OC Waste & Recycling. The digital mapping will be placed on CD-ROM utilizing a .DWG file format for use in the latest version of Land Development Desktop software used by OC Waste & Recycling or in a version as specified by the department. Contours shall be AECC Contours. A-E shall use AutoCAD layering specified line type, and the layer description to be implemented and adhered to for all photogrammetric and topographic digital files. Contact OC Waste & Recycling for layer specifications.

j. Reproduction

County will be responsible for all reproduction necessary for advertising for bids and for Agreement administration. A-E shall be responsible for reproductions necessary for submittals as described in this Agreement.

**3. Access to Facilities and Property**

County will make its facilities reasonably accessible to A-E as required for A-E's performance of its Services. A-E shall notify OC Waste & Recycling prior to accessing County's facilities and property.

**4. Compensation of A-E**

A-E will be compensated for all authorized services performed under this Agreement in accordance with Exhibit C hereto. Exhibit C includes full compensation for providing all services performed provided under this Agreement. All invoicing and payment for Services performed under this Agreement shall be as specified in Exhibit C.

For the Services properly authorized and performed by A-E and approved Team Members under this Agreement, A-E shall be compensated in accordance with the following:

a. Time and Expenses Basis

For completion and approval of all work for a Task Order, compensation shall be on a time and expenses basis. The hourly rates listed herein shall be effective from the Effective Date of this Agreement through the termination of this Agreement.

b. Lump Sum Basis

Lump Sum basis Task Orders are required to have written approval by the PM prior to the A-E proceeding with the services. Prior to the services commencing the A-E shall provide the PM with a detailed breakdown of the labor and materials costs that determined their lump sum quote. The breakdown shall be in accordance with the hourly rate schedules listed herein. Costs not contained in the hourly rate schedules shall be reviewed by the PM for reasonableness as part of the written approval process. All Lump Sum quotes for Task Orders shall be executed and processed as described herein.

In the event of unforeseen circumstances occurring that would necessitate a modification to the authorized Lump Sum Task Order; a separate Task Order authorization may be requested by the A-E to reflect the changes in the scope of services.

Upon completion of the Lump Sum Task Order, the A-E shall submit to the PM a billing invoice for services rendered. The PM shall review and approve the invoice for payment by OC Waste & Recycling Accounting/Accounts Payable.

The A-E shall at all time during the term of the Lump Sum Task Order keep full and complete records and documentation in support of the services performed. The County shall have the right to request and examine any project records for the purpose of determining its accuracy in accordance with the terms and conditions of this Agreement.

c. Contract Maximum

The total Agreement amount shall not exceed \$1,000,000, including reimbursable and other direct costs. Reimbursable costs shall be billed in accordance with Exhibit C.

The total not-to-exceed compensation has been broken down into individual tasks, See Exhibit A, Table 1. The amounts allocated for each task may be transferred and adjusted within these tasks with the written approval of the Director or designee.

It will be the sole responsibility of the PM to monitor, track, amend, and with Director approval move the task dollars within the not-to-exceed budget of the total contract amount.

A-E shall submit a monthly accounting report to County's OC Waste & Recycling by Wednesday of the third week of the following month. The accounting report shall show the following information for each Task Order:

- Amount Budgeted (original Agreement),
- Revised Amount Budgeted (original Agreement plus fund transfers and amendments),
- Amount Expended to Date,
- Amount Being Invoiced,
- Amount Remaining in Budget, and
- Percentage of Task Funds Expended.
- Contract and Encumbrance document numbers to be provided by the County.

This report shall contain the total costs recorded to date on this Agreement and all Task Orders.

d. Change Orders or Amendment and Authority

Prior to performing work where changes in the work are requested for a Task Order, the changes shall be in writing and County shall have the authority to review and approve the changes in accordance with the following:



- Approval by County's Board of Supervisors is required if: (1) a change would exceed \$10,000 when the original contract amount does not exceed \$100,000; (2) a change would exceed 10-percent of the original contract amount, or 10-percent of the amended "not to exceed" amount, if applicable, as authorized by the Board of Supervisors when the original contract amount exceeds \$100,000, but does not exceed \$250,000; and (3) a change for any contract would exceed \$25,000 plus 1% of the original amount of the contract in excess of \$250,000, (or the full "not to exceed" amount as authorized by the Board of Supervisors) when the original contract amount exceeds \$250,000. In no instance shall the extra work cumulatively exceed \$100,000, unless authorized by the Board of Supervisors.
- Changes which do not exceed the limits defined above may be authorized by the Director of OC Waste & Recycling, provided the additional work is conducted under the current terms and conditions of the contract.

e. Compensation on Termination

Any compensation due A-E at termination will be determined in accordance with Agreement Article. 8, Termination of Agreement.

Other Contractual Requirements

- Labor Charges shall be charged on the basis of actual time spent at the job site/company office, computed to the nearest ¼ hour.
- Labor charges for time spent traveling from portal to portal shall be charged at 50 percent of the pertinent rate(s) established herein, and shall be computed to the nearest ¼ hour. Travel time is not to exceed 2 hours per day.
- Travel time to and from the job site shall not be included in the calculation of overtime. Overtime hours shall be calculated solely on the basis of working in excess of 8 hours a day at the job site and/or company office.
- At the start of any Task Order authorized under this Agreement, the A-E shall submit to the PM a list of employees who will work on the project and the job classification the employee is assigned.
- The A-E employee's job classification and charge (billing) rate once assigned shall remain fixed for the life of the contract, where the employee's hours worked may not be charged to a different charge (billing) rate, unless performing duties at a lower rate.

Notwithstanding any provision of this Agreement to the contrary, County's obligations under this Agreement are contingent upon the inclusion of sufficient funding for the services hereunder in the applicable County budget approved by the Board of Supervisors.

Payments

The cost for the work including the fees and reimbursable items will be billed monthly by the A-E to the County in congruence with the scheduled deliverable in each Task Order. Each invoice must show cost breakdown by task including the accumulated cost for the task as well as the new cost for the billing period. The cost breakdown by task for the various subcontracted items shall also be indicated. The A-E's billings shall also include, but not be limited to, classification of A-E's staff employed in the work, number of hours worked, and hourly rate. These invoices must be prepared in a manner that will allow easy cross-referencing to the reports required herein. Requests for payment must be mailed (on the approved form) to OC Waste & Recycling Accounting/Accounts Payable. The responsibility for providing acceptable invoices rests with the A-E. Final invoices must be received within 60 days upon completion of final task. Please note that the following information must be clearly referenced on the invoice if available:

- the A-E's vendor code and
- the Master Agreement (MA) number.

A-E must promptly notify the County about any changes in Legal (Organization) Name, Tax ID and Address so that this information can be updated in the system to prevent a delay in payment.

Furthermore, sufficient itemization and/or description must appear on the invoice. Dollar amounts, extensions, and totals must be correct.

Invoices must be mailed to:

**OC Waste & Recycling**

300 N. Flower St., Ste. 400

Santa Ana, CA 92703-5000

Attn: Accounting/Accounts Payable

**Master Agreement Number: MA-299-14010492**

**Project: Geotechnical Investigation Update and Project Design  
for Zone 1, Phase D Groundwater Protection Composite Liner  
Project at the Prima Deshecha Landfill**

## 5. Term of Agreement

The term of this Agreement shall commence upon the date the Agreement is executed by the County (the "Effective Date") and, unless earlier terminated as provided for herein, shall be in full force and effect until project completion. All Task Orders must be issued and completed within the Agreement duration.

**6. Authorization to Proceed**

A-E is not authorized to proceed with the Services prior to the Effective Date of this Agreement. In addition, A-E shall not perform any Services under this Agreement without the issuance of a notice to proceed and an authorized Task Order.

**7. Suspension, Delay, or Interruption of Work**

The County, in its sole and absolute discretion, may, at any time, suspend, delay, interrupt, or stop the performance of any or all of the Task Orders, work or Services of this Agreement by written notice to the A-E for the convenience of County or for work stoppages beyond the control of the County, the A-E or other party.

If the Task Order(s), work or Services are suspended by the County for more than 90 calendar days, the A-E shall be paid compensation for services performed prior to receipt of the written notice of the suspension from the County, together with any reimbursable expenses then due, if applicable.

If an extension of the suspension of a Task Order, work or Services is necessary, the extension must be evidenced by written modification to the pertinent Task Order(s) issued by the County. If the Task is resumed after being suspended for more than six (6) months, the A-E shall have the option to require that its compensation for the applicable Task Order(s), including rates and fees, be renegotiated.

Subject to the provisions of this Agreement relating to termination, a suspension of a Task Order does not void this Agreement. The County's right to suspend Task Order(s) is in addition to and not in substitution for the County's right to terminate this Agreement, as stated below.

**8. Termination of Agreement**

a. Termination by County Due to A-E's Default

(1) Notice: If A-E defaults in the performance of any authorized Task Order, work, Services or any material obligation of A-E under this Agreement and fails to correct such default (or if immediate correction is not possible, fails in the opinion of the Director to undertake effective action to correct such default) within thirty (30) days following receipt of written notice thereof from County, County may, without prejudice to any other rights or remedies it may have, cause further payment to be held in abeyance and/or terminate this Agreement by written notice to A-E, County specifying the date of termination. In the event of such termination by County, County may take possession of the work (all plans, specifications, drawings, any and all materials and equipment, which County has paid for whether delivered to the job site or on order by A-E and other data theretofore prepared by A-E with respect to this Agreement) at the job site and A-E's place of business.

(2) Obligations: In the event of termination for default, A-E shall turn over all documents, plans, specifications, and reports or data generated or in progress relative to this Agreement and all of the Work Product.

In the event of termination by County, A-E shall immediately advise County of all outstanding agreements, subcontracts, rental agreements, and purchase orders, which A-E has with others pertaining to performance of the Services under this Agreement, and furnish County with complete copies thereof.

Upon request by County, A-E shall assign County, in form and content satisfactory to the County, A-E's title to materials and equipment for the Services under this Agreement and those agreements, subcontracts, rental agreements, and purchase orders designated by County.

(3) Compensation Upon Termination: In the event of termination by County for default, A-E shall not be entitled to receive any further payment until the work specified in any uncompleted Task Order(s) is completed to the satisfaction of County. If the sum of the total cost to County of completing the work plus amounts previously paid to A-E for the work is less than the fixed price for that specified in the applicable Task Order(s), such excess shall be paid to A-E up to an amount sufficient to compensate A-E for the completed and satisfactory work. If the sum of the total cost to County of completing the work plus amount previously paid to A-E for the work exceeds the Task Order price for the completed work, A-E shall promptly pay the difference to County.

Additionally, the County may pursue any action available to it to obtain relief for actual damages suffered by reason of A-E's defaults, failures or breaches hereunder and the County may withhold any payments to the A-E for the purpose of set off or partial payments of the amounts owed the County.

b. Termination by A-E Due to County's Default

(1) Notice: If County defaults in the performance of any work, service and material obligation to be performed by County under the provisions of this Agreement, and fails to correct such default (or if immediate correction is not possible, fails to undertake effective action to correct such default) within thirty (30) days following receipt of written notice thereof from A-E, A-E may, without prejudice to any other rights or remedies it may have, terminate this Agreement by written notice to County specifying the date of termination. Upon such termination, the A-E may recover from the County full payment for all work or Services performed to the date of such termination and all reimbursable expenses, if applicable.

c. Termination for Convenience of County

Notwithstanding any other provision of this Agreement to the contrary, the County may, at any time, and without cause, terminate this Agreement in whole or in part, upon not less than 30 days written notice to the A-E. Such termination shall be effected by delivery to the A-E of a notice of termination specifying the effective date of the termination and the extent of the Services (including,

but not limited to Task Order(s)) to be terminated. The A-E shall immediately stop work in accordance with the notice and comply with any other direction as may be specified in the notice or as provided subsequently by County. The County shall pay the A-E for the services completed prior to the effective date of the termination, and such payment shall be A-E's sole remedy under this Agreement. Under no circumstances will the A-E be entitled to anticipatory or unearned profits, consequential damages, or other damages of any sort as a result of a termination or partial termination under this Paragraph. The A-E shall insert in all Team Member contracts and subcontracts that the Team Members or sub-contractors shall stop work on the date of and to the extent specified in a notice of termination, and shall require Team Members and sub-contractors to insert the same condition in any lower tier subcontracts.

d. Transfers on Termination

In the event of termination pursuant to any of the provisions of this Agreement, the A-E and the County shall forthwith return to the other all papers, materials and other properties of the other held by each. In addition, each party will assist the other in the orderly termination of this Agreement and the transfer of all aspects hereof, tangible and intangible as may be necessary for the orderly, non-disrupted business continuation of each party. In the event A-E does not complete authorized but unfinished Task Orders upon the termination date, the A-E shall not be responsible for the services performed by others after termination of this Agreement, nor shall the A-E be responsible for the accuracy or workability of any incomplete plans, drawings or specifications prepared by the A-E.

**9. Default and Remedies**

a. Default by A-E

In the event (1) A-E fails to perform the Services required pursuant to this Agreement within the times set forth each Task Order; (2) A-E, or any employee or agent, Team Member or sub-contractor of A-E, wrongfully files or records a lien against any property of the County or any agent or employee of County; (3) A-E is declared to be bankrupt or insolvent, an assignment for the benefit of creditors is made by the A-E, the A-E files a voluntary petition in bankruptcy or insolvency, a receiver is appointed for A-E and such appointment or bankruptcy or insolvency proceedings, petition, declaration or assignment is not set aside within thirty (30) days; (4) any representation or certification made by A-E to the County shall prove to be false or misleading on the date said representation or certification is made; (5) a default is made in the observance or performance of any covenant, agreement or condition contained in this Agreement required to be kept, performed or observed by A-E; (6) any of the policies of insurance required to be obtained by A-E are canceled; or (7) A-E violates any laws, ordinances, rules, regulations, or orders of any public authority in the performance of its duties pursuant to this Agreement; then, provided the event as described above is not cured within thirty (30) days after written notice from the County to A-E is given, the County may declare the A-E to be in default under this Agreement and exercise any remedies available to it.

b. Default by County

In the event that the County should fail to perform its obligations pursuant to this Agreement after thirty (30) days written notice from A-E to the County is given, the A-E may declare the County to be in default hereunder and exercise any remedies available to it.

**10. Force Majeure**

The A-E shall not be responsible for damages during any delay beyond the time named for the performance of this Agreement for damages or delays in performance caused by an act of God, war, civil disturbance, labor dispute, strike, lockout, accident, or other cause or event beyond the reasonable control of the A-E, provided the A-E gives written notice of the cause of the delay to the County as soon as possible, however, not later than seven (7) calendar days of the start of the delay.

**11. Consent to Breach Not Waiver**

No term or provision of this Agreement shall be deemed waived and no breach excused, unless such waiver or consent shall be in writing and signed by the party claimed to have waived or consented. Any consent by any party to, or waiver of, a breach by the other, whether express or implied, shall not constitute consent to, waiver of, or excuse for any other different or subsequent breach.

**12. Remedies Not Exclusive**

The remedies for breach set forth in this Agreement are cumulative as to one another and as to any other provided by law, rather than exclusive; and the expression of certain remedies in this Agreement does not preclude resort by either party to any other remedies provided by law.

**13. Non-Employment of County Personnel**

A-E agrees that no full-time, regular employee of County who is involved in this Agreement shall be given or offered employment by A-E in a participatory status during the term of this Agreement regardless of the assignments said employee may be given or the days or hours employee may work. By accepting this Agreement, A-E agrees not to negotiate any employment opportunity with any County full-time, regular employee who is involved in this Agreement in professional classifications of the same skills required for the performance of this Agreement.

Nothing in this Agreement shall be deemed to make A-E, or any of A-E's employees or agents, the agents or employees of the County. A-E shall be an independent A-E and shall have responsibility for and control over the details and means for performing the work, provided that A-E is in compliance with the terms of this Agreement. Anything in this Agreement which may appear to give OC Waste & Recycling the right to direct A-E as to the details of the performance of the work or to exercise a measure of control over A-E shall mean that A-E shall follow the desires of County, only in the results of the work.

**14. Non-Employment of A-E Personnel during Agreement**

County agrees that no full-time, regular employee of A-E or A-E's Team Members assigned to this Project shall be offered or given employment by County during the life of this Agreement and for a period of three (3) months after completion of this Project, unless County and A-E or A-E's Team Members mutually agree prior to any employment opportunities being discussed with the A-E's employee or A-E Team Members' employee.

**15. License and Certificates**

A-E and its Team Members and sub-contractors, if any, shall, at all times during the term of this Agreement, maintain in full force and effect such licenses or permits as may be required by the State of California or any other governmental entity. A-E and its Team Members shall strictly adhere to, and obey, all governmental rules and regulations now in effect, or as subsequently enacted or modified, as promulgated by any local, state, or federal governmental entities.

**16. Patent/Copyright Materials/Proprietary Infringement**

A-E shall be solely responsible for clearing the right to use any patented or copyrighted materials in the performance of this Agreement. A-E warrants that any materials and software as modified through services provided hereunder will not infringe upon or violate any patent, proprietary right, or trade secret right of any third party. A-E agrees that, in accordance with the more specific requirement contained herein, it shall indemnify, defend and hold County and County Indemnities harmless from any and all such claims and be responsible for payment of all costs, damages, penalties and expenses related to or arising from such claim(s), including, but not limited to, attorney's fees, costs and expenses.

**17. Compliance with Laws**

A-E represents and warrants that services to be provided under this Agreement shall fully comply, at A-E's expense, with all standards, laws, statutes, restrictions, ordinances, requirements, and regulations (collectively "laws"), including but not limited to those issued by County in its governmental capacity and all other laws applicable to the services at the time services are provided to and accepted by County. A-E acknowledges that County is relying on A-E to ensure such compliance, and A-E agrees that it shall defend, indemnify and hold County and County Indemnities harmless from all liability, damages, costs and expenses arising from or related to a violation of such laws.

**18. Errors and Omissions**

All work performed by A-E shall be complete, accurate and consistent and shall be carefully checked prior to submission. A-E understands that County's checking is discretionary and A-E shall not assume that County will discover errors and/or omissions. If County discovers any errors or omissions prior to approving A-E's work, the work will be returned to A-E for correction, which shall

be made without additional compensation to A-E if necessary to correct errors for which A-E is responsible. Should County or others discover errors or omissions in the work submitted by A-E after County's approval thereof, County's approval of A-E's work shall not be used as a defense by A-E and A-E is not relieved of its responsibility for accuracy of its work.

County may, at its option, return the approved work for A-E to correct which shall be made without additional compensation to A-E if the necessary corrections are due to errors for which A-E is responsible, and/or County may, at its option, claim damages for breach of this Agreement. The foregoing notwithstanding, A-E's performance under this Agreement will be consistent with the norms for the profession and no other warranty is expressed or implied.

## **19. Indemnification and Insurance**

### **Indemnification Provisions**

**A-E agrees to indemnify, defend with counsel approved in writing by COUNTY, and hold COUNTY, its elected and appointed officials, officers, employees, agents and those special districts and agencies which COUNTY'S Board of Supervisors acts as the governing Board ("COUNTY INDEMNITEES") harmless from any claims, demands or liability of any kind or nature, including but not limited to personal injury or property damage, arising out of, pertaining to, or relating to the negligence, recklessness, or willful misconduct of the A-E. If judgment is entered against A-E and COUNTY by a court of competent jurisdiction because of the concurrent active negligence of COUNTY or COUNTY INDEMNITEES, A-E and COUNTY agree that liability will be apportioned as determined by the court. Neither party shall request a jury apportionment. Notwithstanding anything stated above, nothing contained herein shall relieve A-E of any insurance requirements or obligations created elsewhere in this Agreement.**

### **Insurance Requirement**

*Prior to the provision of services under this contract, the A-E agrees to purchase all required insurance at A-E's expense and to deposit with the County Certificates of Insurance, including all endorsements required herein, necessary to satisfy the County that the insurance provisions of this Agreement have been complied with and to keep such insurance coverage and the certificates therefore on deposit with the County during the entire term of this contract. The County reserves the right to request the declarations page showing all endorsements and a certified copy of the policy. In addition, all subcontractors performing work on behalf of A-E pursuant to this Agreement shall obtain insurance subject to the same terms and conditions as set forth herein for A-E.*

All self-insured retentions (SIRs) or deductibles shall be clearly stated on the Certificate of Insurance. If no deductibles or SIRs apply, indicate this on the Certificate of Insurance with a 0 by the appropriate line of coverage. Any deductible or self-insured retention (SIR) in an amount in excess of \$25,000 (\$5,000 for automobile liability), shall specifically be approved by the County Executive Office (CEO)/Office of Risk Management. A-E shall be responsible for reimbursement of any deductible to the insurer.



*If the A-E fails to maintain insurance acceptable to the County for the full term of this contract, the County may terminate this contract.*

Qualified Insurer: The policy or policies of insurance must be issued by an insurer licensed to do business in the state of California (California Admitted Carrier) or have a minimum rating of A- (Secure A.M. Best's Rating) and VIII (Financial Size Category) as determined by the most current edition of the **Best's Key Rating Guide/Property-Casualty/United States or ambest.com**

If the insurance carrier is not an admitted carrier in the state of California and does not have an A.M. Best rating of A-/VIII, the CEO/Office of Risk Management retains the right to approve or reject carrier after a review of the company's performance and financial ratings.

The policy or policies of insurance maintained by the A-E shall provide the minimum limits and coverage as set forth below:

<b><u>Coverage</u></b>	<b><u>Minimum Limits</u></b>
Commercial General Liability	\$1,000,000 per occurrence \$2,000,000 aggregate
Automobile Liability including coverage for owned, non-owned and hired vehicles	\$1,000,000 per occurrence
Workers' Compensation	Statutory
Employers' Liability Insurance	\$1,000,000 per occurrence
Professional Liability Insurance	\$1,000,000 per claims made or per occurrence
Environmental/Pollution Liability	\$1,000,000 per claims made or occurrence

**Required Coverage Forms**

The Commercial General Liability coverage shall be written on Insurance Services Office (ISO) form CG 00 01, or a substitute form providing liability coverage as broad.

The Business Auto Liability coverage shall be written on ISO form CA 00 01, CA 00 05, CA 00 12, CA 00 20, or a substitute form providing liability coverage as broad.

**Required Endorsements**

The Commercial General Liability policy shall contain the following endorsements, which shall accompany the Certificate of Insurance:

- An Additional Insured endorsement using ISO form CG 2010 or CG 2033 or a form at least as broad naming the County of Orange, its elected and appointed officials, officers, employees, agents as Additional Insured.

- A primary non-contributing endorsement evidencing that the A-E's insurance is primary and any insurance maintained by the County of Orange shall be excess and non-contributing.

The Workers' Compensation policy shall contain a waiver of subrogation endorsement waiving all rights of subrogation against the County of Orange and members of the Board of Supervisors, its elected and appointed officials, officers, employees and agents.

All insurance policies required by this Agreement shall waive all rights of subrogation against the County of Orange and members of the Board of Supervisors, its elected and appointed officials, officers, agents and employees when acting within the scope of their appointment or employment.

All insurance policies required by this Agreement shall give the County of Orange 30 days' notice in the event of cancellation and 10 days' notice for non-payment of premium. This shall be evidenced by policy provisions or an endorsement separate from the Certificate of Insurance.

If A-E's Professional Liability policy is a "claims made" policy, A-E shall agree to maintain professional liability coverage for two years following completion of contract.

The Commercial General Liability policy shall contain a severability of interests clause (standard in the ISO CG 001 policy).

Insurance certificates should be forwarded to the agency/department address listed on the solicitation.

If the A-E fails to provide the insurance certificates and endorsements within seven days of notification by County Procurement Office or the agency/department purchasing division, award may be made to the next qualified vendor.

County expressly retains the right to require A-E to increase or decrease insurance of any of the above insurance types throughout the term of this Contract. Any increase or decrease in insurance will be as deemed by County of Orange Risk Manager as appropriate to adequately protect County.

County shall notify A-E in writing of changes in the insurance requirements. If A-E does not deposit copies of acceptable certificates of insurance and endorsements with County incorporating such changes within thirty days of receipt of such notice, this Agreement may be in breach without further notice to A-E, and County shall be entitled to all legal remedies.

The procuring of such required policy or policies of insurance shall not be construed to limit A-E's liability hereunder nor to fulfill the indemnification provisions and requirements of this Contract, nor act in any way to reduce the policy coverage and limits available from the insurer.

**20. Award of Construction Contract and Other Future Contracts**

A-E is hereby informed that provisions of the Public Contract Code, the Political Reform Act of 1974, other statutes, regulations, and County policy prohibit the award of a construction agreement to an A-E or its Team Members who performed architectural-engineering or construction management services for Services performed under this Agreement as an impermissible conflict of interest. A-E is hereby informed that these statutes and regulations could also prohibit the award to A-E of design or other contracts on future phases related to the Services performed under this Agreement. This prohibition applies also to Team Members, sub-contractors, or parent company of the A-E, Team Member or sub-contractor that performed architectural-engineering or construction management services for this Agreement.

**21. Entire Agreement**

This Agreement, including all Exhibits, which are attached hereto and incorporated herein by this reference, contains the entire contract between the parties with respect to the matters herein and there are no exceptions, alternatives, substitutions, revisions, understandings, agreements, restrictions, promises, warranties or undertakings, whether oral or written, other than those set forth herein or referred to herein.

**22. Amendments**

No alteration or variation of the terms of this Agreement shall be valid unless made in writing and signed by the parties.

**23. Appropriation/Contingency of Funds**

This Agreement is subject to and contingent upon applicable budgetary appropriations being approved by the County of Orange Board of Supervisors for each fiscal year during the term of this Agreement. If such appropriations are not approved, this Agreement will be immediately terminated without penalty to the County.

**24. Notices**

Any notice required by this Agreement shall be deemed given by depositing said document in the United States Mail, duly registered or certified, return receipt requested, postage pre-paid, addressed to last known address of either party. Each party hereto shall give notice to the other pursuant to this Article when changing address. The present address of the parties hereto is:

COUNTY: Geotechnical Investigation Update and Project Design for Zone 1, Phase D  
Groundwater Protection Composite Liner Project at the Prima Deshecha Landfill  
OC Waste & Recycling  
300 N. Flower Street, Ste.400,  
Santa Ana, CA 92703  
Attn: Glenn Pattillo, Project Manager

A-E : Tetra Tech BAS, Inc.  
1360 Valley Vista Drive  
Diamond Bar, CA 91765  
Attn: Christine Arbogast, Project Manager

**25. Confidentiality**

a. Work Product

“Work Product” as used in this Agreement includes all drawings, designs, specifications, computer database, and other incidental architectural and engineering work documentation, reports, and any other deliverables originating from the A-E its Team Members, suppliers, vendors, or sub-contractors associated with this Agreement.

b. Assurances

A-E shall assure County that the A-E and its Team Members, sub-contractors, and vendors shall hold confidential all portions of the Work Product, except as expressly authorized for release by the Director in writing. That portion of the Work Product originating from the A-E, its Team Members, suppliers, vendors, or sub-contractors shall not be released at any time or under any circumstances without the written permission of the Director.

c. Non-Disclosure

A-E shall not disclose any of the Work Product to third parties, except as may be necessary to perform the Services required hereunder and, in any event, A-E shall take all reasonable measures to protect the propriety, secrecy and confidentiality of the Work Product. A-E is authorized to make such Work Product disclosures on a “need to know” basis as may be necessary for the performance of work by its Team Members and sub-contractors. A-E shall assure County that all A-E, Team Members’ and sub-contractors’ contracts issued or prepared by A-E or prepared by County with A-E’s assistance shall contain this confidentiality requirement.

d. Non-Utilization

A-E understands and agrees that it is County that is so entitled to be safeguarded and protected by the confidentiality of the Work Product, which it has commissioned under this Agreement. A-E unqualifiedly agrees warrants and represents that it will not utilize or disclose any aspect of the Work Product as defined herein to others for any purpose, except as specifically described herein.

**26. Independent A-E**

The A-E and Team Members shall be and act at all times during the term of this Agreement as an independent A-E vis-à-vis the County and shall not be, nor shall the A-E be construed in any manner as being, an agent, employee or officer of the County. The A-E shall solely be responsible for

the Services performed under the terms of this Agreement. The County shall look to the A-E for results only. The A-E shall assume full responsibility for payments on account of itself of Federal, State and local taxes or contributions imposed or required under the Social Security, Workers' Compensation and applicable income and employment tax laws. In this regard, the A-E certifies to the County that it is aware of the laws of the State of California requiring the self-employed to be insured against liabilities and shall comply with such laws during the term of this Agreement. Nothing contained herein shall be construed as creating the relationship of employer/employee or principal/agent.

Nothing in this Agreement shall be deemed to make A-E, or any of A-E's employees, Team Members or agents, the agents or employees of County. A-E and Team Members shall be an independent A-E and shall have responsibility for and control over the details and means for performing the work, provided that A-E is in compliance with the terms of this Agreement. Anything in this Agreement which may appear to give OC Waste & Recycling the right to direct A-E as to the details of the performance of the work or to exercise a measure of control over A-E shall mean that A-E shall follow the desires of County, only in the results of the work.

**27. No Additional Compensation for Deficiencies**

Notwithstanding anything contained in this Agreement to the contrary, no compensation shall be paid to or claimed by the A-E for additional work required to correct deficiencies in any documents prepared by or on behalf of the A-E, or attributable to defaults, failures, errors or omissions of the A-E, or conflicts in the documents attributable to the A-E, or changes in any Task Order requested by the A-E, unless previously approved by the County.

**28. Books, Records and Audit**

The A-E shall keep complete and detailed books and records relating to all Task Orders. These books and records shall be retained by the A-E at its head office for a period of at least three (3) years after the termination of this Agreement. If there is a dispute between the A-E and the County, the books and records shall be retained until the dispute is finally settled. The County shall have the right at all reasonable times to audit the books and records. If such audit discloses that the A-E has charged and received more than it was entitled hereunder, the A-E shall immediately reimburse the County for the excess amount received, together with interest thereon at the rate of one percent (1%) per month but not-to-exceed the legal rate allowed by law accruing from the date such excess amount was received until repayment thereof.

A-E agrees to permit the County's Auditor-Controller or the Auditor-Controller's authorized representative (including auditors from a private auditing firm hired by the County) access during normal working hours to all books, accounts, records, reports, files, financial records, supporting documentation, including payroll and accounts payable/receivable records, and other papers or property of A-E for the purpose of auditing or inspecting any aspect of performance under this Agreement. The inspection and/or audit will be confined to those matters connected with the performance of this Agreement including, but not limited to, the costs of administering this

Agreement. The County will provide reasonable notice of such an audit or inspection. A-E agrees to allow interviews of any employees or others who might reasonably have information related to such records. Further, A-E agrees to include a similar right to the County to audit records and interview staff of any Team Member or sub-contractors related to performance of this Agreement.

The County reserves the right to audit and verify the A-E's records before final payment is made.

Should the A-E cease to exist as a legal entity, the A-E's records pertaining to this Agreement shall be forwarded to the surviving entity in a merger or acquisition or, in the event of liquidation, to the PM.

**29. Prevailing Wage (Labor Code § 1773, 1775, 1813)**

As applicable, the A-E shall be aware, make its Team Members, and sub-contractors aware of and comply with the provisions of Sections 1773, 1775, and 1813 of the Labor Code. All workers, as classified by the provisions of the Labor Code, employed by the A-E or its Team Members, sub-contractors and/or A-E for any Services under this Agreement or by any Team Members doing or contracting to do any part of the Services under this Agreement, shall be paid prevailing wages as required by the above statutes, if and as applicable.

Pursuant to the provisions of Section 1773 of the Labor Code of the state of California, the A-E shall comply with the general prevailing rates of per diem wages and the general prevailing rates for holiday and overtime wages in this locality for each craft, classification, or type of worker needed to execute this contract. The rates are available from the Director of the Department of Industrial Relations at the following website: [http://www.dir.ca.gov/DLSR/statistics\\_research.html](http://www.dir.ca.gov/DLSR/statistics_research.html)

The A-E shall post a copy of such wage rates at the job site and shall pay the adopted prevailing wage rates. The A-E shall comply with the provisions of Sections 1775 and 1813 of the Labor Code.

**30. Non-Discrimination**

The A-E shall comply with all Federal and State laws relating to civil rights. In the performance of the terms of this Agreement, A-E shall not engage in discrimination in the employment of persons because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, age, or sex of such persons, except as provided in Section 12940 of the California Government Code, and every A-E in violation of this provision may result in the imposition of penalties referred to in California Labor Code Section 1735 or other applicable State and Federal regulations.

**31. County Child Support Enforcement**

In order to comply with child support enforcement requirements of County, within 30 days of the Effective Date of this Agreement, A-E agrees to furnish and require all Team Members to furnish to the Director a fully completed and executed certification in the form of Exhibit D. It is expressly understood that this data will be transmitted to government agencies charged with the establishment and enforcement of child support orders, and for no other purposes.

Failure of the A-E and Team Members to timely submit the data and/or certification required above or to comply with all federal and state reporting requirements for child support enforcement or to comply with all lawfully served Wage and Earnings Assignment Orders and Notices of Assignment shall constitute a material breach of this Agreement. Failure to cure such breach within 60 calendar days of notice from the County shall constitute grounds for termination of this Agreement.

**32. Employee Eligibility Verification**

The A-E warrants that it and all Team Members and sub-contractors fully complies with all Federal and State statutes and regulations regarding the employment of aliens and others and that all its employees performing work under this Agreement meet the citizenship or alien status requirement set forth in Federal statutes and regulations. The A-E shall obtain, from all employees performing work hereunder, all verification and other documentation of employment eligibility status required by Federal or State statutes and regulations including, but not limited to, the Immigration Reform and Control Act of 1986, 8 U.S.C. §1324 et seq., as they currently exist and as they may be hereafter amended. The A-E shall retain all such documentation for all covered employees for the period prescribed by the law. The A-E shall indemnify, defend with counsel approved in writing by County, and hold harmless, the County, its agents, officers, and employees from employer sanctions and any other liability which may be assessed against the A-E or the County or both in connection with any alleged violation of any Federal or State statutes or regulations pertaining to the eligibility for employment of any persons performing work under this Agreement.

**33. Governing Law and Venue**

This Agreement has been negotiated and executed in the State of California and shall be governed by and construed under the laws of the State of California, without reference to conflict-of-law provisions. In the event of any legal action to enforce or interpret this Agreement, the sole and exclusive venue shall be a court of competent jurisdiction located in Orange County, California, and the parties hereto agree to and do hereby submit to the jurisdiction of such court, notwithstanding Code of Civil Procedure section 394. Furthermore, the parties specifically agree to waive any and all rights to request that an action be transferred for trial to another venue.

**34. Contract Construction**

This Agreement has been negotiated at arm's length and between persons sophisticated and knowledgeable in the matters dealt with in this Agreement. In addition, each party has been

represented by experienced and knowledgeable independent legal counsel of their own choosing, or has knowingly declined to seek such counsel despite being encouraged and given the opportunity to do so. Each party further acknowledges that they have not been influenced to any extent whatsoever in executing this Agreement by any other party hereto or by any person representing them, or both. Accordingly, any rule of law (including California Civil Code Section 1654) or legal decision that would require interpretation of any ambiguities in this Agreement against the party that has drafted it is not applicable and is waived. The provisions of this Agreement shall be interpreted in a reasonable manner to affect the purposes of the parties and this Agreement.

**35. Declared Emergency**

In the event of an emergency or if Orange County is declared a disaster area by the County, State or federal government, this Agreement may be subjected to unusual usage. A-E shall service the County during such an emergency or declared disaster under the same terms and conditions that apply during non-emergency/disaster conditions. The pricing quoted by A-E shall apply to serving the County's needs regardless of the circumstances. If the A-E is unable to supply the goods/services under the terms of this Agreement, then the A-E shall provide proof of such disruption and a copy of the invoice for the goods/services from the A-E's supplier(s). Additional profit margin as a result of supplying goods/services during an emergency or a declared disaster shall not be permitted. In the event of an emergency or declared disaster, emergency purchase order numbers will be assigned. All applicable invoices from the A-E shall show both the emergency purchase order number and the contract number.

**36. Sustainability**

The County desires to further its commitment to sustainability through encouraging our vendors to adopt this business philosophy. Improving energy efficiency is a first step toward achieving sustainability in buildings and organizations. Energy efficiency helps control rising energy costs, reduces environmental footprints, and increases the value and competitiveness of the vendors. This means getting the most out of every single unit of energy, water, materials, and resources used in their business. Green concepts and practices the A-E should consider for the day-to-day operations include the following:

- Develop a plan for sustainability.
- Retrofitting current systems/buildings for increased energy efficiency.
- Selecting energy efficient products and technologies for buildings.
- Exploring renewable energy services,
- Understanding efficient water solutions.
- Reducing your organization's carbon footprint.
- Utilize green suppliers/vendors.
- Attending energy efficient and sustainability events and associated programs.
- Recycling and resource recovery.
- Diversion and reuse.



The A-E should consider sustainability for incorporation into their work product. Sustainability objectives should be identified by the A-E for use as a basis for its design. These sustainability objectives should then be reviewed by the A-E with OC Waste & Recycling for each individual project undertaking.

- Use of recycled products
- Reuse on-site materials where available
- Utilize green sub-A-E
- Identify and utilize energy efficient products
- Minimize use of raw materials/products
- Establish a life cycle costing methodology for projects
- Cost and value appropriately sustainability options

**37. Change of Ownership**

A-E agrees that if there is a change or transfer in ownership of A-E's business prior to completion of this Agreement, the new owners shall be required under terms of sale or other transfer to assume A-E's duties and obligations contained in this Agreement and complete them to the satisfaction of County.

**38. Headings**

The various headings and numbers herein, the grouping of provisions of this Agreement into separate clauses and paragraphs, and the organization hereof are for the purpose of convenience only and shall not limit or otherwise affect the meaning hereof.

**39. Severability**

If any term, covenant, condition or provision of this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remainder of the provisions hereof shall remain in full force and effect and shall in no way be affected, impaired or invalidated thereby.

**40. Calendar Days**

Any reference to the word "day" or "days" herein shall mean calendar day or calendar days, respectively, unless otherwise expressly provided.

**41. Attorney Fees**

In any action or proceeding to enforce or interpret any provision of this Agreement, or where any provision hereof is validly asserted as a defense, each party shall bear its own attorney's fees, costs and expenses.

**42. Waiver of Jury Trial**

To the extent enforceable under California law, each party acknowledges that it is aware of and has had the opportunity to seek advice of counsel of its choice with respect to its rights to trial by jury, and each party, for itself and its successors, creditors, and assigns, does hereby expressly and knowingly waive and release all such rights to trial by jury in any action, proceeding or counterclaim brought by any Party hereto against the other (and/or against its officers, directors, employees, agents, or subsidiary or affiliated entities) on or with regard to any matters whatsoever arising out of or in any way connected with this Agreement and /or any other claim of injury or damage.

**43. Authority**

The parties to this Agreement represent and warrant that this Agreement has been duly authorized and executed and constitutes the legally binding obligation of their respective organization or entity, enforceable in accordance with its terms.

IN WITNESS WHEREOF, County and A-E have executed this Agreement on the dates opposite their respective signatures.

COUNTY OF ORANGE

Date \_\_\_\_\_

By \_\_\_\_\_

Chairman, Board of Supervisors

SIGNED AND CERTIFIED THAT A COPY OF THIS AGREEMENT HAS BEEN DELIVERED TO THE CHAIR OF THE BOARD PER G.C. SEC. 25103, RESO 70-1535. ATTEST:

Date \_\_\_\_\_

By \_\_\_\_\_

Clerk of the Board of Supervisors  
Of Orange County, California

A-E FIRM

Date 10/8/13

By  VICE PRESIDENT

Signature and Title\*

Date 10/8/13

By  Sec

Signature and Title\*

APPROVED AS TO FORM:

County Counsel

Date 10/8/13

By 

Deputy

\* Unless otherwise demonstrated that the person(s) executing this Agreement on behalf of A-E has the requisite authority to legally obligate and bind A-E, if A-E is a corporation, signatures of two specific corporate officers are required as further set forth. The first corporate officer signature must be one of the following: 1) the Chairman of the Board; 2) the President; 3) any Vice President. The second corporate officer signature must be one of the following: a) Secretary; b) Assistant Secretary; c) Chief Financial Officer; d) Assistant Treasurer.

**EXHIBIT A  
SCOPE OF SERVICES**

**GEOTECHNICAL INVESTIGATION UPDATE AND PROJECT DESIGN FOR ZONE 1, PHASE-D  
GROUNDWATER PROTECTION COMPOSITE LINER PROJECT AT PRIMA DESHECHA  
LANDFILL**

**BACKGROUND**

The currently permitted Prima Deshecha Landfill 2001 General Development Plan (GDP) provides refuse disposal capacity to the year 2067 (based on current technologies, regulatory requirements, and estimations for refuse inflow rates and soil use) at which time the site will be the only landfill remaining in Orange County for refuse disposal. Presently, landfilling activities are taking place in Zone 1 divided into four major phases (A through D). All phases have been built through Phase C. The final major phase of development, Phase D, will extend to the east of Phases B and C. In order to more efficiently develop the landfill, Phase D has been divided into three phases (Phases D1, D2 and D3) with Phase D1 located adjacent to Phases C2 and C3, Phase D2 located adjacent to Phase D1 and Phase D3 located adjacent to Phase D2. The development of Phase D will allow time for preparation of Zone 4, which is the next major waste management unit located east of the La Pata Avenue extension project.

**INTRODUCTION**

This Scope of Services has been prepared for the preparation of construction drawings, technical specifications, design calculations, geotechnical engineering, hydrology and hydrogeology, biological mitigation, construction cost estimates, and for providing design support services during the construction of the Zone 1, Phase D and preparation for Geotechnical Investigation update for Phase D design project at Prima Deshecha Landfill in San Juan Capistrano (collectively the “Services”). The Architect/Engineer (“A-E”) will provide these Services. The A-E will also provide design support for environmental permitting support as required.

The A-E will work under the general supervision of the OC Waste & Recycling Project Manager located at the Prima Deshecha Landfill site. All of the A-E Team Member activities will be performed from their respective offices, except construction support to be performed at the Prima Deshecha Landfill site. Any interface with other County agencies, regulatory agencies or other interested parties will be coordinated with the OC Waste & Recycling Project Manager. Detailed scope of service is presented below.

**TASK 1.0 – REVIEW EXISTING DATA**

Following award of the contract, the A-E Team Members will meet with OC Waste & Recycling staff to identify and collect available technical documentation that will be required to develop the design deliverables described below in Tasks 2, 3, 4 and 5. The A-E Team Members understand that this information includes but is not limited to the following:

- As-built documents, geological and geotechnical characterization reports, hydrogeological reports, and slope stability reports
- Historical landslide monitoring data
- Planning-related constraints as contained in CEQA and NCCP documents

- Historical aerial photographs of the site
- Latest revisions to the Master Development Plan (MDP) and Joint Technical Document (JTD)
- Facility permits including waste discharge requirements (WDR), solid waste facility permit (SWFP), and U.S. Army Corps of Engineers and California Department of Fish and Game permits

In preparing the current General Development Plan (GDP) for the Prima Deshecha Landfill, the A-E Team Members conducted preliminary geotechnical and hydrogeological studies for Zone 1 (Geotechnical Investigation Report Zone 1, dated 2000) and Zone 4 (Geotechnical Investigation Report Zone 4, dated 2002). Additional geological, hydrogeological, and geotechnical studies have subsequently been conducted by A-E Team Member at the Prima Deshecha Landfill in support of groundwater protection systems for Phases A, A1, B, B1/A2, C1, C2, and C3 as well as on adjacent properties by A-E Team Member. Recent geologic mapping has occurred for the Phase C3 development and its shear key excavations, as well as for a geological investigation of the north access road. The A-E Team Members will review and synthesize the data from other more recent studies.

The synthesized data will be used to finalize the field work plan to identify all data gaps and to resolve any discrepancies between the interpretations made in the Phase C3 and upper access road geologic studies and previous geologic interpretations. Once compiled, the A-E Team Members will initiate a field investigation as described below in Task 2 to fill data gaps and prepare a Geotechnical Investigation Report for the Zone 1 Phase D Liner Design area.

Task 1 Deliverables: Geotechnical Investigation Field Work Plan and one copy of the Health and Safety Plan approximately one week before commencement of the field investigation.

## **TASK 2.0 – GEOTECHNICAL ENGINEERING**

The A-E Team Members will conduct a geotechnical exploration program to evaluate geotechnical/geologic conditions within the Phase D project area. The exploration will include geologic mapping, a trenching and boring program, installation of piezometers, laboratory testing, and slope stability analyses. The A-E Team Members understand that Phase D is the last development phase in the Zone 1 area of the Prima Deshecha Landfill. Permit-level investigations have concluded that the proposed development is viable, but more detailed investigations are necessary to prepare construction-level design plans and specifications.

The scope of work for this task will include but not be limited to the following:

- Review of site-specific geologic and hydrologic studies
- Review of historical aerial photographs and regional geologic studies
- Geologic mapping
- Exploratory drilling and trenching, with sampling and geologic logging
- Geotechnical laboratory testing of soil samples
- Geophysical testing
- Groundwater evaluation and well construction
- Dynamic and static slope stability analyses

Prior to initiating any field work, the A-E will prepare a project Health and Safety Plan (H&SP) for the geotechnical investigation. This plan will detail methods and procedures to protect workers from

existing and potential hazards during field operations. The H&SP will take into account site-specific conditions, will follow CAL-OSHA regulations and EPA Standard Operating Safety Guides, and will be prepared under the direction of a registered professional. At a minimum, the H&SP will address:

- Site locations and anticipated conditions.
- Location of nearby hospitals and emergency control agencies.
- Site and office support contacts.
- Descriptions of anticipated field activities.
- Anticipated chemical, biological, and physical hazards.
- Description of safe field procedures.
- Description of relevant mitigation measures.
- Personnel and equipment monitoring procedures.
- Description of personnel protective equipment.
- Description of additional safety equipment.
- Contingency plans.

The A-E notes that the project site is adjacent to existing landfill disposal areas, and as a result, exploratory drilling, trenching, and logging activities could expose workers to methane, hydrogen sulfide, and organic gases. The A-E has abundant experience working in these environments (and at the Prima Deshecha Landfill, in particular), and the health and safety plan will present the protocol for evaluating, monitoring, and mitigating these potential hazards.

### **Task 2.1 – Geologic Mapping**

A field mapping program consisting of site reconnaissance and surface geologic mapping will be conducted. The surface geologic mapping will be performed to obtain information on the stratigraphic and structural aspects of the Capistrano Formation bedrock and to identify contacts between this unit, landslide deposits, and alluvial soils. Special attention will be given to resolving discrepancies in geologic contacts, geologic attitudes, and formational relationships that have been identified in more recent geologic studies associated with the Phase C3 construction that were completed after publishing the 1999 Master Plan Geotechnical Investigation.

The Phase D area will be mapped in sufficient detail to identify formational and lithological contacts, geologic structures, bedding plane and joint attitudes, seeps, and other pertinent information. Geologists will map the area using a 1-inch to 100-foot scale topographic map of the area. Orientations of geologic strata and structures will be measured using a pocket transit and recorded on the topographic map.

Geologic cross-sections will be prepared to include the Phase D preliminary grading plan and the results of field mapping to provide interpretation of the subsurface structural setting to plan subsequent exploration work and engineering analyses. The field studies, measurements, and recordings will be consistent with guidelines provided by the California Division of Mines and Geology (CDMG) Note 44.

### **Task 2.2 – Subsurface Exploration**

The A-E will further explore the project area by exploratory trenching and borings for stability assessment and material evaluation. The A-E anticipates that trenches are to be excavated using a track-mounted backhoe. The drilling program will consist of several geotechnical borings drilled with

bucket auger or core-drilling methods. The trenches and borings will be utilized for recovery of samples, the identification of landslides limits and geometries, and measurement of subsurface structural information, including bedding planes, joints, and landslide slip surfaces. In addition to providing field geologic logging services, the A-E will also provide the surveying services necessary to obtain the data required for locations of the borings and trenches. These surveys will use the current coordinate system existing for the landfill site.

### **Task 2.2.1 – Exploratory Trenching**

In order to evaluate the relationship between Landslide A and Landslide D in the northerly portion of the proposed Phase D development, a series of three exploratory trenches will be excavated across the currently estimated geologic contact. In addition, the A-E plans to excavate a series of approximately six test pits (short trenches, no more than 20 feet in length) along the toe of the slope adjacent to Prima Deshecha Canada stream to evaluate the landslide toe geometry. All test pits and trenches that exceed four feet in depth will be constructed with steps and exit ramps to ensure worker safety. Excavation of trenches is a very cost-effective method of investigating the toe of a landslide if the toe is relatively shallow. If the trenches encounter groundwater or if the landslide depth is greater than can be practically reached by a trackhoe, the trenches may be replaced by one or two relatively shallow borings using appropriate boring technology for the conditions anticipated.

Trenches and test pits will extend through surficial soils, alluvium, and colluvium to expose the subjacent landslide debris. As a safety precaution, geologists logging the test pits will be required to work with at least one other person at all times. The excavations will be logged in the field by a senior-level geologist with abundant experience working with the Capistrano Formation. The excavation walls will be cleaned prior to logging, to remove the layer of smeared soil left behind by the equipment, and a reference grid will be superimposed with twine over the wall. The geologist will identify soil types, and, for consistency, will record their color and grain-size characteristics using Munsell color charts and the Unified Soils Classification System. Bedding plane, fracture, shear, and joint attitudes will be measured using a pocket transit and recorded on the log. Bulk samples of representative soil and bedrock may be collected from test-pits and trenches at the discretion of the field geologist for subsequent analysis of engineering properties.

The information obtained from the test pit and trench logging will be assimilated with the prior geologic information for the Phase D area. Once plotted and reviewed, the locations and depths of boreholes will be finalized.

### **Task 2.2.2 – Exploratory Drilling, Logging, and Soil Sampling**

The A-E will drill up to nine exploratory boreholes in the project area to evaluate landslide geometries, structural conditions of the underlying Capistrano Formation, and to obtain representative samples of these materials for laboratory testing. Each borehole will be advanced to a depth surpassing that of the anticipated design subgrade to allow for evaluation of the materials that will be removed and exposed during landfill development. Based on a preliminary landfill development grading plan, the A-E has assumed nine (9) boreholes with approximately 1200 feet of drilling. The final number of boreholes, drilling locations, and drilling footage may be modified based on the results of geologic mapping, the test-pit logging and as the drilling progresses.

Although a preliminary borehole investigation map will be prepared, the drilling depths may be revised after the structural information obtained from the test pits and trenches is reviewed. Boreholes

shallower than 200 feet will be drilled using a 24- to 30-inch diameter bucket auger. Deeper boreholes will be cored using a special technique to orient the core to recreate in situ directionality after the core is brought to the surface so geologic attitudes can be obtained. Bucket auger drilling is considered the “standard-of-practice” for evaluating geologic conditions in landslide terrain. This drilling method produces a large-diameter borehole that a geologist can be lowered into (with proper training and safety equipment) to visually inspect the subsurface geology. Upon entry, the geologist removes the borehole mud cake to expose the undisturbed geology of the penetrated formation. The geologist can record in great detail the subsurface stratigraphy and structural geology, measuring the depth and orientation of bedding planes, joints, faults, shear planes, formational contacts, and landslide slip surface with more accuracy and confidence than any other method of logging. In instances where the A-E requires deeper drilling, core drilling methods will be employed. Core holes can be drilled to depths of more than 1000 feet (though the Team proposes to drill no more than 250 feet in any one core hole), and allow recovery of relatively undisturbed core samples that provide very good opportunity for accurate logging of subsurface conditions.

This scope and our associated budget assumes that eight (8) boreholes will be drilled (up to 940 feet in total depth) using bucket auger methods. For the holes, relatively undisturbed samples will be collected at 5- to 10-foot intervals using a California-modified split spoon sampler and bulk samples will be collected at the same interval or at each significant change in lithology. After the borehole is advanced to its target depth, it will be visually logged by sending a geologist down the hole to record the exposed conditions. Down hole logging will be performed in all bucket-auger boreholes by an experienced field geologist, following all safety protocols outlined in the Health and Safety Plan. Before the geologist enters the hole, it will be assessed for stability, groundwater occurrence, and the presence of explosive gases, hydrogen sulfide, carbon monoxide, and oxygen content. Each geologist entering the borehole will be required to wear a hard hat, steel-toed boots, and a safety harness attached to the cage. In addition, the drilling contractor will provide supplied air and lighting to facilitate logging.

At a minimum, the following information will be recorded from the split spoon samples and down hole visual logging:

- Borehole identification and sample interval
- Standard stratigraphic nomenclature or USCS soil type
- Lithologic composition for bedrock
- Mineralogical composition
- Color according to Munsell soil and/or rock color chart
- Field estimate of moisture content (e.g., dry, moist, wet)
- Degree of weathering
- Degree of induration
- Landslide slip planes/shear zones
- Bedding plane orientations
- Bedding thickness and other characteristics
- Fracture/fault plane orientations
- Fracture intensity, width, infilling, textures and slickensiding
- Presence of fossils or microfossils
- Presence and depth of groundwater
- Other pertinent characteristics



After a geologist completes down hole visual logging of a borehole, the borehole will be “check-logged” by a second geologist to verify key information, and to ensure that the logging is thorough, complete, and accurate.

If groundwater is encountered in the bucket auger borings, the borehole will remain open for up to 24 hours to allow groundwater to equilibrate. The depth to groundwater seepage will be measured by the geologist while in the borehole, and the static water level will be measured using a water level sounder. Depending on the observed perched and deeper groundwater levels, single or multiply completed piezometers may be installed in the boreholes. This information will be used to provide characteristics of the water-bearing strata for subsequent design of the groundwater monitoring system.

Boreholes that are left open to equilibrate will be securely covered with plywood and soil to minimize trip and entrapment hazards. Once all logging and measurements are complete the boreholes will be backfilled with soil cuttings. The driller will compact the cuttings periodically using a tamping plate attached to the Kelly bar to minimize future earth settlement. All boring locations will be staked as reference for subsequent surveying.

For this scope and our associated budget, one proposed borehole has a target depth (up to 250 feet) that is below typical bucket auger drilling capabilities. As a result, this boring will be advanced using wire line coring methods after a surface casing is installed with either a hollow stem auger or conventional borehole casing. Rock core will be obtained using HQ wire-line coring equipment to yield a 2.4-inch-diameter core collected in 5-foot intervals. Core samples will be transferred to water-resistant, reinforced cardboard boxes equipped with longitudinal separators for subsequent logging, recording the same information that will be recorded in bucket auger boreholes. After the core borehole reaches the target depth, the borehole will be flushed with clean water and then geophysically logged using an acoustic televiewer tool. Using this method, the A-E will be able to accurately determine the orientation and depth of landslide features and bedding planes that might extend below the depth accessible using bucket auger/downhole-visual logging methods.

After geophysical logging is completed, core boreholes that are not completed as piezometers will be backfilled with neat cement grout.

### **Task 2.2.3 – Piezometer Installation**

Slope instability within the Capistrano Formation is largely dictated and controlled by changes in pore-water pressure. For this reason, the A-E recommends that select boreholes be completed as zoned piezometers so that changes in perched and deep groundwater tables within and adjacent to the proposed Phase D development area can be monitored periodically.

Based on the findings of the geotechnical drilling, up to three boreholes will be converted to piezometers. If a piezometer is to be constructed in a core borehole, the borehole will be reamed to the target depth with a tricone bit. If a piezometer is to be constructed at a bucket auger borehole location, the bucket auger hole will be backfilled as described in Task 2.2.1, and a small-diameter borehole will be drilled using straight air rotary or hollow stem auger methods to reach the target depth. Piezometers will be constructed with factory-supplied materials provided in their original packaging. Recycled well materials will not be used. Final design of screen slot size and filter pack will be based on the grain size distribution of the water-bearing unit. The A-E anticipates constructing piezometers using Schedule 80 PVC casing materials and screen. The screen will be 20 feet long, and will be surrounded by a washed silica sand filter pack. The filter pack will extend approximately five feet above the

screen. After the filter pack is placed, the piezometer will be “pre-developed” by surging water through the screen and filter pack materials with vented surge block. This process will remove fine sediments and settle the filter pack sand. Additional filter pack materials will be added, as necessary, to maintain a five-foot distance between the top of the well screen and the well sealing materials. The remaining borehole annulus will be sealed with a 5-foot bentonite chip seal and a neat cement grout. Each piezometer well will have a surface monument constructed of a locking steel stovepipe surrounded by four steel traffic posts (if near a travelled roadway).

### **Task 2.3 – Geotechnical Laboratory Testing**

The A-E will conduct geotechnical laboratory testing of representative undisturbed and bulk samples to establish the following:

- Obtain engineering properties (unit weight and shear strength) of bedrock and slide/bedding planes required for the design of cut and fill slopes.
- Identify and classify the material types that will be excavated, so that their suitability as clay liner, daily cover and final cover may be evaluated.
- Obtain other engineering properties, such as compressibility, expansion potential, and specific gravity.
- Supplement the existing database on material properties. The results of the field exploration and laboratory testing will be presented to OC Waste & Recycling in the Phase D Geotechnical Investigation Report in Task 2.5.

All anticipated geotechnical laboratory testing can be conducted using the Team’s in-house geotechnical laboratory

### **Task 2.4 – Slope Stability Analysis**

The A-E will evaluate areas of potential geologic instability. Stability evaluations will be performed in accordance with the requirements of county, state, and federal agencies and landfill guidance documents. The results of these evaluations will provide input to development of the project design plan. The site topography and geological, geotechnical, and hydrogeological characterization data will be used to develop representative cross-sections for stability analyses.

The A-E will input geologic cross sections and material property data into a computerized slope stability program (SLOPE/W) along with the geotechnical materials properties, groundwater levels, and external loading parameters to obtain static and dynamic factors of safety for the slopes. Potential sliding surfaces, using both block and circular failure surfaces, will be evaluated. The program will utilize a unique feature of SLOPE/W where the program generates up to several thousand (user specifies the actual number of trials) additional random failure surfaces to insure the lowest factor of safety is obtained. Where the slope geometry and bedding attitudes warrant, three-dimensional stability analyses are to be performed to optimize the design of stable slopes. The 3-D program proposed will be the widely-accepted CLARA-W program. It is anticipated that a three dimensional approach to slope stability will yield more cost-effective designs for slope stabilization as this approach includes the buttressing effects of the entire landslide mass. This is particularly important for the southeastern portion of Landslide A where the effects of the adjacent stability measures can lead to a smaller buttress design around the eastern side of the proposed Phase D3 or where the buttressing effects of the La Pata Avenue fills and the existing refuse may lead to a more cost-effective buttress (if necessary) for Landslide D.

Typical minimum factors of safety are 1.5 for permanent slopes and 1.3 for interim slopes. Based on the results of these analyses, areas with an inadequate factor of safety will be identified and potential stabilization measures will be considered. In conjunction with development of the final grading plan, the A-E will analyze critical cross-sections for slope stability under static loading conditions for interim slopes, and for both static and dynamic loading conditions for permanent slopes. The potential for development of unstable slope areas during grading will also be evaluated.

Seismic analysis of slopes may require computation of deformations to assess its seismic stability. Evaluation of the permanent slope displacement under dynamic conditions will be evaluated by first evaluating the design Probable Ground Acceleration (PGA) at the site in accordance with CCR Title 27.

Site Seismicity and Seismic Design Parameters: A review of the site seismic design criteria and parameters used for the Prima Deshecha Landfill will be performed. The project requires that a deterministic and probabilistic seismic hazard analysis be performed for Phase D to estimate the updated site-specific seismic design parameters (response spectra and representative ground motion time histories) based on the latest developments in faulting and seismicity of the site area and the most recent attenuation relations developed after the 1994 Northridge and the more recent earthquakes in California and around the world (e.g., the 1999 Taiwan earthquake and the 1999 Izmit and Kocaeli Turkey earthquakes).

The A-E proposes to use the computer program EZ-FRISK Version 7.62, and the following relations and information to estimate the site seismic design parameters which include design response spectra and representative ground motion time histories for seismic deformation analysis:

- Next Generation Attenuation (NGA) relations developed by Pacific Earthquake Engineering Research Center (PEER)
- Latest information on the site faulting and seismicity
- Near-fault and directivity effects

In developing representative ground motion time histories for deformation analysis, the A-E will use the relatively large database of earthquake records compiled by PEER and other research centers and universities. Our evaluations will include the effects of near-field (San Joaquin Hills, Newport-Inglewood, and Elsinore Faults) and far-field (San Andreas Fault) seismic events scaled to Maximum Probable Earthquake (MPE) and attenuated to the site to assure both high intensity, shorter duration and low intensity, longer duration ground motions are considered.

Landfill Slope Stability Analyses: The A-E proposes to perform static and seismic slope stability analyses using the state-of-the-practice and more advanced analysis methods to evaluate landfill slopes stability and optimize excavation and fill plan configurations. The analyses will start with static stability evaluations.

The steps involved in static slope stability evaluations to support engineering analysis and design report and permitting for the project are:

- Locate critical 2-D analysis cross sections for each landfill excavation and final fill plans for slope stability evaluations. The cross sections will be located in areas with highest and steepest slopes and where passive resistance is considered to be the least based on geometry.

- Select static waste and liner interface material properties (unit weight and shear strength properties) from existing data.
- Perform stability analyses.

Stability of base and side slope liners and waste slopes will be analyzed using conventional two-dimensional limit-equilibrium stability analyses. The limit equilibrium slope stability analysis methods (e.g., Spencer or Morgenstern-Price) and computer programs (e.g., SLOPE/W) will be used for static and pseudo-static slope stability evaluations. For all final static (long-term) stability conditions, the minimum acceptable factor of safety will be 1.5. Static 3-D analysis will be used if needed to maximize airspace.

The seismic stability evaluations will be based on computing and limiting liner displacements to a maximum value of about 6 inches. The A-E proposes the following approach in the seismic slope stability analysis of the landfill to optimize the landfill waste volume capacity for the development of Phase D:

- Utilize the updated site MPE ground motions.
- The dynamic material properties for waste, liner interface, and foundation soil/rock materials will be evaluated. These include shear wave velocities of waste and foundation materials, unit weights, Poisson's ratio, and nonlinear shear modulus reduction and damping ratio increase relations as a function of shear strain. Previous values from earlier reports will be used for hazardous waste and, if needed, will be updated based on the latest information in the literature.
- Perform 2-D or 3-D pseudo static slope stability analyses to evaluate yield acceleration ( $K_y$ ) values for critical potential failure planes determined from the static slope stability evaluations.
- Perform site response analyses using one-dimensional computer program SHAKE91 or two-dimensional finite element computer program QUAD4MU to compute the attenuated earthquake motions (acceleration time histories) of the potential sliding mass. Our experience shows that SHAKE91 is best used to establish configurations that are most critical and have "close" responses (runs are simple to set-up and quickly computed). QUAD4MU can then be used to maximize the configuration.
- Use the Newmark double integration method to estimate the seismically-induced waste slope displacements along the landfill base liner.

More detailed discussion of slope stability evaluations are provided below:

#### **2.4.1 – Static Stability Analyses for Cut Slopes**

Critical cross sections along cut slopes, based on the proposed landfill excavation plan, will be selected for stability evaluation of these temporary slopes. A minimum factor of safety of 1.3 will be used in stability evaluation of the interim cut slopes or slope buttressed by MSW within less than 1 year in accordance with the standard of the practice in industry. In particular, our findings on bedding conditions (e.g., adverse out of slope bedding) from the site geologic/geotechnical characterization task will be critical in evaluating the stability of the cut slopes.

#### **2.4.2 – Static and Pseudo-Static Stability Analyses for Interim Landfill Configuration**

Critical cross sections for the interim landfill configuration will be selected to perform static and pseudo-static slope stability analyses and estimate factors of safety and yield accelerations. Analyses

will be performed to evaluate the highest fill elevation that can be achieved without and with construction of a soil buttress.

### **2.4.3 – Static and Pseudo-Static Stability Analyses for Final Fill Configuration**

Critical cross sections will be selected for the final landfill fill plan to perform static and pseudo-static slope stability analyses and estimate factors of safety and yield accelerations. Analyses will be performed to optimize the geometry of the landfill using limit-equilibrium two-dimensional and, if needed, three-dimensional (e.g., CLARA-W) slope stability analysis computer programs.

### **2.4.4 – Static and Pseudo-Static Stability Analyses for Final Landfill Cover**

Static and pseudo-static stability analyses will be performed to evaluate factors of safety and yield acceleration for the final cover stability.

### **2.4.5 – Seismic Stability Evaluation for Interim Landfill Slopes**

These analyses will include:

- a) Dynamic site response analyses for one-dimensional waste columns using Computer Program SHAKE91 and selected earthquake ground motion time histories
- b) Determination of seismically-induced deformations using Newmark double-integration method based on the results of pseudo-static stability and dynamic site response analyses

### **2.4.6 – Seismic Stability Evaluation for Final Landfill Slopes**

These analyses will include:

- a) Dynamic site response analyses for two cross sections using Computer Program QUAD4M and selected earthquake ground motions
- b) Determination of seismically-induced deformations using Newmark double-integration method based on the results of pseudo-static stability and dynamic site response analyses

The permanent seismic displacement will then be evaluated by simplified displacement methods including Bray and Rathje, 1998, and Bray, et.al, 1998, and Bray and Travararou, 2007. To optimize the landfill height and slopes, the A-E may perform more rigorous site response and Newmark analyses. The design criteria for slope stability evaluations will be summarized in the basis of design report.

The results of the slope stability analyses, including stability cross-sections and stability output results, will be presented in a Phase D geotechnical investigation report which will be included as an appendix to the Basis of Design Report (discussed below). The Phase D geotechnical investigation report will support the preferred design for developing the Phase D area and provide recommendations for its construction. Based on the results of the above analyses, the A-E will optimize the landfill excavation and final fill plans to achieve the highest possible waste capacity with the most cost-effective remediation design.

### **2.4.7 – Seismic Stability Evaluation for Final Landfill Cover**

These analyses will include determination of seismically-induced deformations using Newmark double-integration method based on the results of pseudo-static stability and dynamic site response analyses in Task 2.4.5.

### **Task 2.5 – Geotechnical Investigation Report**

Following completion of the geotechnical investigation and engineering analyses, the A-E will prepare a detailed Phase D geotechnical report summarizing the geological, hydrogeological and slope stability findings, the results of the engineering analyses and recommendations for the Phase D design. The level of data synthesis and investigation will be sufficient to provide the San Diego Regional Water Quality Board the information required to determine consistency with or prepare updated Waste Discharge Requirements (WDRs). Coordination with and response to comments from the RWQCB are not included in this scope.

At a minimum, the geotechnical report will include the following:

- Description of field investigation methods.
- Discussion of findings, including an interpretation of geologic conditions and any changes (with rationale) to the interpretations made in previous studies.
- Geologic logs of all test pits and trenches.
- Geologic logs of all exploratory boreholes.
- Construction logs of all piezometers.
- A geologic map and cross sections that show geologic units, stratigraphy, and all identified structural features (e.g., landslides, faults, joints) and their orientations.
- Geotechnical test results.
- Groundwater equipotential map.
- Result of the seismic hazards analysis.
- Results of slope stability analyses.
- Recommendations for Phase D development, including slope grading, landslide mitigation, dewatering, or other slope stabilization methods.

The Geotechnical Report will be prepared by the project Engineering Geologists and Geotechnical Engineers and will describe all field and laboratory investigation methods and results. The site stratigraphy, structural geology, engineering conditions, and groundwater conditions will be described in sufficient detail to support the Phase D design. Slope stability modeling procedures, input parameter values, and assumptions will be described in detail, and the results will be presented in a format that references critical slope geometries. Whenever required, an analysis of mitigative solutions that ensure interim and permanent stability of landfill slopes will also be presented. Prior to submittal of any work product to OC Waste & Recycling, the A-E will provide comprehensive senior peer review of all deliverable technical documents.

Task 2 Deliverables: Phase D Geotechnical Investigation Report

### **TASK 3.0 – HYDROLOGY AND DRAINAGE DESIGN**

Title 27 of the California Code of Regulations requires that a Class III landfill's drainage system have adequate capacity to convey flows from a 100-year, 24-hour storm event. In order to meet these requirements, A-E Phase D design will include drainage structures that are integrated with the liner in

a manner that enhances the stormwater protection provided by the existing drainage system. The drainage system will include some of the following features:

1. Bench drains.
2. Down-drains with a concrete lining.
3. Turf Reinforcement Mats.
4. Earthen channels; impermeable lining may also be considered.
5. De-silting capacity employed where possible, but limited to areas where infiltration is not expected to affect slope stability.

The A-E will analyze surface-water drainage controls using the Advanced Engineering Software (AES), which is based on the Rational Method, in accordance with requirements of the Orange County Hydrology Manual. Modeling for hydraulic structures will be performed using Bentley's Flowmaster software for determining the sizes of open channels, orifices and culverts. Large hydraulic structures will be modeled using Water Surface Pressure Gradient (WSPG) to verify that critical junction structures will be designed appropriately. A-E will prepare a unit hydrograph for the watershed based on the rational method analysis in preparation to complete a basin routing analysis for the proposed basin. This process will be iterative in relation to the design constraints and results of the analysis. This has been the preferred modeling technique for the site on all previous analyses. The A-E will prepare the final design of the surface-water drainage controls including but not limited to swales, ditches, and down-drains. Standard details employed by OC Waste & Recycling will be used wherever applicable.

All drainage design features will be prepared with storm water quality compliance in mind. It will be important to understand all phases of the landfill (liner expansion construction, landfill operations and final landfill conditions) lifecycle so that phasing of drainage features can be enhanced for compliance through; construction of small interim storm water basins, appropriate application of interim and final BMPs, understanding of the hydroseeding pallet that is acceptable and meets biological goals of the site and the specific routing of drainage pathways.

### **Task 3.1 – Phase D1 Drainage Analysis and Design**

The A-E will prepare and submit a conceptual design plan (30% level) for the drainage features of proposed Phase D1 liner expansion. This plan is anticipated to include an earthen basin that will be designed to collect and mitigate silt discharge from the easterly half of Zone 1. This design will take into account the future Phase D2 expansion area, the stability of landslides A and D and operational access in this area. Although this basin will be temporary, provisions will be made to ensure proper function for the expended life cycle; including sufficient outfall redundancy, ease of maintenance and security.

### **Task 3.2 – Phase D2 Drainage Analysis and Design**

The A-E will prepare and submit a conceptual design (30% level) for the drainage features of the proposed Phase D2 liner expansion. This design is anticipated to include the modifications for drainage control in the areas adjacent to Phase D2 and the continued use of the earthen basin that is proposed as part of Phase D1. This analysis will also include provisional designs of the benching and perimeter road for future expansion into Phase D3.

### **Task 3.3 – Phase D3 Drainage Analysis and Design**

The A-E will prepare and submit a conceptual design (30% level) for the drainage features of the proposed Phase D3 liner expansion. This design is anticipated to include the final design of the perimeter drainage controls for the easterly portion of Zone 1. This design will need to account for all phases of filling and final closure of the landfill. Items to be considered will be directing potential run-on away from the liner area, collection of runoff from the lined area that has yet to be filled and perimeter access/utility crossing issues.

Task 3 Deliverables: Hydrology and hydraulic analyses and conceptual drainage design plans for Phases D1, D2 and D3 in support of the final drainage design.

### **TASK 4.0 – GRADING, CONSTRUCTION AND IMPROVEMENT PLANS**

The A-E will prepare 30, 60, 90, and 100 percent permitting design submittals for the Phase D Design Report to be submitted to the RWQCB and Final Bid Packages for Phases D1, D2 and D3. These submittals will include drawings illustrating the layout and details of the Phase D design.

The development of Phase D1 construction level design plans and specifications will be consistent with regulatory requirements and permit design criteria for the Prima Deshecha Landfill, as well as Title 27 and 40 Code of Federal Regulations (CFR) requirements. The specifications for construction will also incorporate appropriate mitigation measures identified in EIR 575 and Supplemental EIR 597 and storm water management practices as required by the latest NPDES regulations.

Based on the findings of Task 2.5-Geotechnical Investigation Report, OC Waste & Recycling and the A-E will determine the most cost effective and practical approach for developing Phase D. Based on current data, it is projected that Phase D will be constructed into three sub phases (i.e., D1, D2, and D3). The intermediate phasing limits of the Phase D area will be developed to minimize excavation volumes in the initial construction (by the contractor) which will provide capital savings to OC Waste & Recycling by allowing site operational staff to excavate the daily and intermediate cover soils in the remaining portions of Phase D prior to further development. In order to reduce the permitting effort that multiple liner construction phases would typically require, A-E shall recommend a comprehensive single approval for the entire Phase D liner area with the RWQCB. To achieve this, a 90% complete design shall be proposed for all three proposed sub-phases for D including specifications be included in the Phase D Design Report to be submitted to the RWQCB. The A-E shall include a 100% complete design effort for the final Design Report (assuming one submittal to respond to RWQCB comments on the Design Report containing the 90% complete design).

The overall objectives for this task include the following:

- Evaluate cover soil availability while maintaining a soil balance between excavated material and cover use.
- Calculate airspace capacity.
- Locate stockpile areas.
- Provide detailed design for drainage improvements and erosion control features (including hydroseeding).
- Prepare detailed drawings including plans, cross-sections and details for Phase D to facilitate RWQCB review and to provide the construction contractor with sufficient information to construct Zone 1, Phase D1 improvements.



The A-E will utilize AutoCAD and associated engineering software to develop the final grading plans and estimates of the volumes of excavation and fill required for the design. A-E will also create phased stockpile plans, as necessary. The final construction plans will be developed based on the latest topographic maps (2013 for the RWQCB submittal and 2014 for Phase D1 final bid package), the preliminary layout plans, the results of the geotechnical investigation, slope stability analyses and slope stabilization design and the hydrology and hydraulic calculations discussed under Task 3. The plans will include survey control, cut/fill boundaries, location of sub-drains, delineation of grading and slope stabilization areas and liner limits. Details and construction sequencing for slope stabilization measures will also be developed. The plans work will include design of liner subgrade and liner system, LCRS, drainage and erosion control measures, stockpile grading plans and fill sequencing plans.

The A-E will consider issues related to the construction phasing, including storm water control and stockpile phasing during the development of the grading plans. CEQA mitigation measures or other necessary resource Agency's permit conditions will also be considered and incorporated in the construction documents. The results and recommendations based on design evaluations, along with all design criteria will be presented in a Basis of Design Technical Memorandum (see Task 5)

#### **Task 4.1 – Phases D1, D2 and D3 30 Percent Design Plans**

The A-E will prepare a 30 percent design package that will include all three phases (D1, D2 and D3) of development. The 30 percent package will include; the current aerial topographic map, title sheet, index sheet, draft grading with liner limits, refined drainage and basin plan (from Task 3.1), conceptual geotechnical remedial grading (if any), key construction details and cross sections. This design submittal will also have a stand-alone refuse fill plan with associated volume calculations. This package will be prepared and submitted concurrently with the Preliminary (30 percent) Technical Design Memorandum (Task 5.1).

#### **Task 4.2 – Phases D1, D2 and D3 60 Percent Design Plans**

The A-E will prepare a 60 percent design package that will include all three phases (D1, D2 and D3) of development. The 60 percent design package will include all items listed in Task 4.1, incorporation of the OC Waste & Recycling's comments and a further refinement of the 30 percent design set. Additional sheets will be added to separate out the subgrade layer, LCRS piping system, operations layer and surface water drainage. A majority, but not all, of the design details will be included with this submittal. A-E will also update the stand-alone refuse fill plan with associated volume calculations. This package will be prepared and submitted concurrently with the 60 Percent Basis of Design Report (Task 5.2).

#### **Task 4.3 – Phases D1, D2 and D3 90 Percent Design Plans**

The A-E will prepare a 90 percent design package that will include all three phases (D1, D2 and D3) of development. The 90 percent package will include all items listed in Tasks 4.1 and 4.2, incorporation of the OC Waste & Recycling's comments and a further refinement of the 60 percent design set. Additional sheets will be added to define the limits and extent of intermediate and final erosion control measures. The design details will be completed and included with this submittal. A-E will also update the stand-alone refuse fill plan with associated volume calculations (if necessary). This package will be prepared and submitted concurrently with the 90 Percent Basis of Design Report (Task 5.3). This complete package is expected to be submitted to the RWQCB for regulatory approval.

**Task 4.4 – Phases D1, D2 and D3 100 Percent Design Plans**

The A-E will prepare a 100 percent design package that will include all three phases (D1, D2 and D3) of development. The 100 percent package will include all items listed in Tasks 4.1, 4.2 and 4.3, incorporation of the OC Waste & Recycling's comments, incorporation and response to RWQCB comments and a further refinement of the 90 percent design set. This package will be prepared and submitted concurrently with the 100 Percent Basis of Design Report (Task 5.4). It is assumed that one round of comments on the 90% complete design and associated Design Report will be responded to and that all comments from either the RWQCB or OC Waste & Recycling can be addressed within the budget of this task. OC Waste & Recycling will be advised if additional budget is required prior to any additional work being performed.

**Task 4.5 – Phase D1 Final Construction Bid Package**

The A-E will prepare a separate Phase D1 final bid package which will include plans, specifications and Construction Quality Assurance (CQA) plan based on the approved final or 100 percent Design Report submitted to the RWQCB as part of Tasks 4.4 and 5.4. This package will be presented to OC Waste & Recycling as a complete bid ready package. This will include renumbering of sheets and details, preparing bid schedules and ensuring all payment items are in accordance with County standards and front end documents. A-E will also update all of the grading sheets to the latest aerial topographic map (2014 or later) and adjust quantities as necessary.

**Task 4.6 – Phase D2 Final Construction Bid Package**

The A-E will prepare a separate Phase D2 final bid package which will include plans, specifications and CQA plan based on the approved final or 100 percent Design Report submitted to the RWQCB as part of Tasks 4.4 and 5.4. This package will be presented to OC Waste & Recycling as a complete bid ready package. This will include renumbering of sheets and details, preparing bid schedules and ensuring all payment items are in accordance with County standards and front end documents. A-E will also update all of the grading sheets to the latest aerial topographic map (2014 or later) and adjust quantities as necessary.

**Task 4.7 – Phase D3 Final Construction Bid Package**

The A-E will prepare a separate Phase D3 final bid package which will include plans, specifications and CQA plan based on the approved final or 100 percent Design Report submitted to the RWQCB as part of Tasks 4.4 and 5.4. This package will be presented to OC Waste & Recycling as a complete bid ready package. This will include renumbering of sheets and details, preparing bid schedules and ensuring all payment items are in accordance with County standards and front end documents. A-E will also update all of the grading sheets to the latest aerial topographic map (2014 or later) and adjust quantities as necessary.

Task 4 Deliverables: 30, 60, 90 and 100 Percent Permit Level Design Plans for Phases D1, D2 and D3  
 Final Construction Bid Packages for Phases D1, D2 and D3  
 Up to five (5) hard copy sets to be provided per submittal)  
 Electronic (pdf) drawing and word files for each submittal  
 CADD drawing and word files for Phases D1, D2 and D3 Bid Packages  
 including plans and specifications

## **TASK 5.0 – BASIS OF DESIGN AND DESIGN REPORTS**

To accompany the 30, 60, 90, and 100 percent permitting design submittals, the A-E will prepare design reports documenting the results of analyses performed during each design phase.

### **Task 5.1 – Preliminary Technical Design Memorandum**

The A-E will prepare and submit a Technical Design Memorandum with the preliminary grading plan (30 percent) submittal prepared in Task 4.1. This document will include the following:

- Preliminary design criteria
- Geotechnical investigation results
- Quantity estimates for liner, airspace and earthwork
- Proposed incremental phasing concepts

### **Task 5.2 – 60 Percent Basis of Design Report**

A Basis of Design Report will accompany the 60 percent design submittal prepared in Task 4.2a. This document will include the following:

- Design criteria
- Preliminary grading plans
- Geotechnical investigation results
- An outline of technical specifications
- An outline of the Storm Water Pollution Prevention Plan with proposed BMPs
- Quantity estimates
- Preliminary cost estimates
- Preliminary Schedule

As part of the 60 percent Basis of Design, the A-E will develop a preliminary Engineer's cost estimate. The preliminary Engineer's estimate will be based on material quantities calculated from the 60 percent construction drawings and unit prices obtained from industry sources, recent bid awards at the landfill, and A-E experience. The Engineer's estimate will also include the cost of CM and QA/QC services, to be procured separately.

### **Task 5.3 – 90 Percent Design Report**

The A-E will prepare a 90 Percent Design Report, including the results of the field exploration and laboratory testing work, slope stability analyses for the back-cut slopes, and design calculations for the slope stabilization measures and surface-water drainage controls and hydrology. Design computations will be included in appendices to the design report. This document will include the following:

- Design criteria
- Geotechnical investigation results
- Engineering calculations
- Proposal, supplementary conditions and special provisions.
- Technical specifications
- Storm Water Pollution Prevention Plan (SWPPP)
- Quantity estimates

- Cost estimates (for OC Waste & Recycling only)
- Schedule (for OC Waste & Recycling only)

The 90 percent submittal Design Report for Phases D1 through D3 will include detailed plans and technical specifications. The submittal will include special provisions, a QA/QC Plan, and construction drawings. Technical specifications will be prepared for grading, which will include clearing and grubbing, installation of the liner system, stockpile and engineered fill placement and compaction, quality control, sub-drain construction, slope stabilization and erosion control, and biological mitigation measures in existing permits. This submittal will also incorporate the draft final SWPPP. It is anticipated that the 90 percent design and design report will be submitted to the RWQCB for review and approval.

#### **Task 5.4 – Final (100 Percent) Design Report**

The A-E will prepare a final Design Report (including 100 percent complete design plans and specifications) responding to RWQCB comments on the Design Report containing the 90 percent complete design. The 100 percent complete Design Report will include all items listed in Task 5.3, incorporation of OC Waste & Recycling's comments, incorporation and response to RWQCB comments and a further refinement of the 90 percent design set (performed as part of Task 4.3). It is assumed that one round of comments on the 90% complete design and associated Design Report will be responded to and that all comments from either the RWQCB or OC Waste & Recycling are expected to be addressed within the budget of this task. OC Waste & Recycling will be advised if additional budget is required prior to any additional work being performed.

Task 5 Deliverables: Phases D1 through D3 30, 60, 90 and 100 Percent Design Reports

#### **TASK 6 – BIOLOGICAL MITIGATION AND PERMITTING**

The A-E will review the Phase D design concepts, including any potential landslide stabilization alternatives, for potential impacts on the adjacent preserved resources and biological mitigation areas, based on the current mapping of these areas. Following this analysis of the physical impacts, the A-E will identify potential permitting and mitigation requirements associated with each alternative. The design intent is to avoid impacts to jurisdictional waters and endangered/threatened species while permitting strategies would ensure consideration of consistency with the existing Habitat Conservation Plan and previous permitting efforts. The A-E approach assumes that new authorizations from the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and Regional Water Quality Control Board will not be required for impacts to biological resources. However, consideration will be given to construction near least Bell's vireo and coastal California gnatcatcher territories in the vicinity of Phase D. Finally, the CEQA implications of each alternative will be considered. Following this analysis, the A-E will consult with OC Waste & Recycling regarding the scenarios associated with each stabilization alternative to determine which alternative(s) is recommended.

In addition, the A-E, including sub-consultants, shall be available to assist OC Waste and Recycling with the CEQA documentation and permitting efforts to get Phase D approved, or to work with CEQA/Permitting Consultants that may be assisting OC Waste & Recycling under different contracts. As part of Task 4, the A-E will prepare appropriate construction plans and specifications that include mitigation measures required by the CEQA and permitting requirements. The biological mitigation associated with the Phase D project plans would be limited to planting and seeding of the exposed

excavation areas and incorporation of Contractor requirements for construction near protected species habitat. The A-E shall not anticipate the need for preparing any permit applications or mitigation plans for biological resources to develop Phase D.

The A-E will be responsible for conducting the following activities:

- Analysis of Phase D grading impacts on biological mitigation sites and other biological resources
- Identification of CEQA and permitting requirements associated with grading alternatives
- Coordination with others conducting CEQA and permitting analyses
- Incorporation of CEQA mitigation measures and conditions from existing resource agency and landfill regulatory agency permits into plans and specifications

Task 6 Deliverables: Impact analysis for CEQA and permitting requirements (including cost estimates) Incorporation of environmental mitigation measures in plans and specifications.

### **TASK 7 – COORDINATION**

The A-E will coordinate with other A/E firms in other aspects of the landfill operations and the regulatory/permit agencies such as the RWQCB in their review of the geotechnical investigation report, design plans, design report and bid documents. The A-E understands that coordination efforts with regulatory agencies or those outside our Team will be performed through the Prima Deshecha Landfill Project Management team.

### **TASK 8 – AS-NEEDED SERVICES**

The A-E understands that during the contract period, OC Waste & Recycling may request that it provide other as-needed services, which may include but is not limited to the following:

- Providing miscellaneous civil, geotechnical, mechanical, and electrical engineering, geological services, and other solid waste related engineering services as determined necessary
- Coordinating with other involved A/E firms
- Preparing technical design reports or other submittals required by regulatory agencies/permit agencies
- Meeting with regulatory agencies as necessary during the design phase
- Performing other miscellaneous services as required

**Table I - Zone I Phase D Liner Design Project  
at Prima Deshecha Landfill**

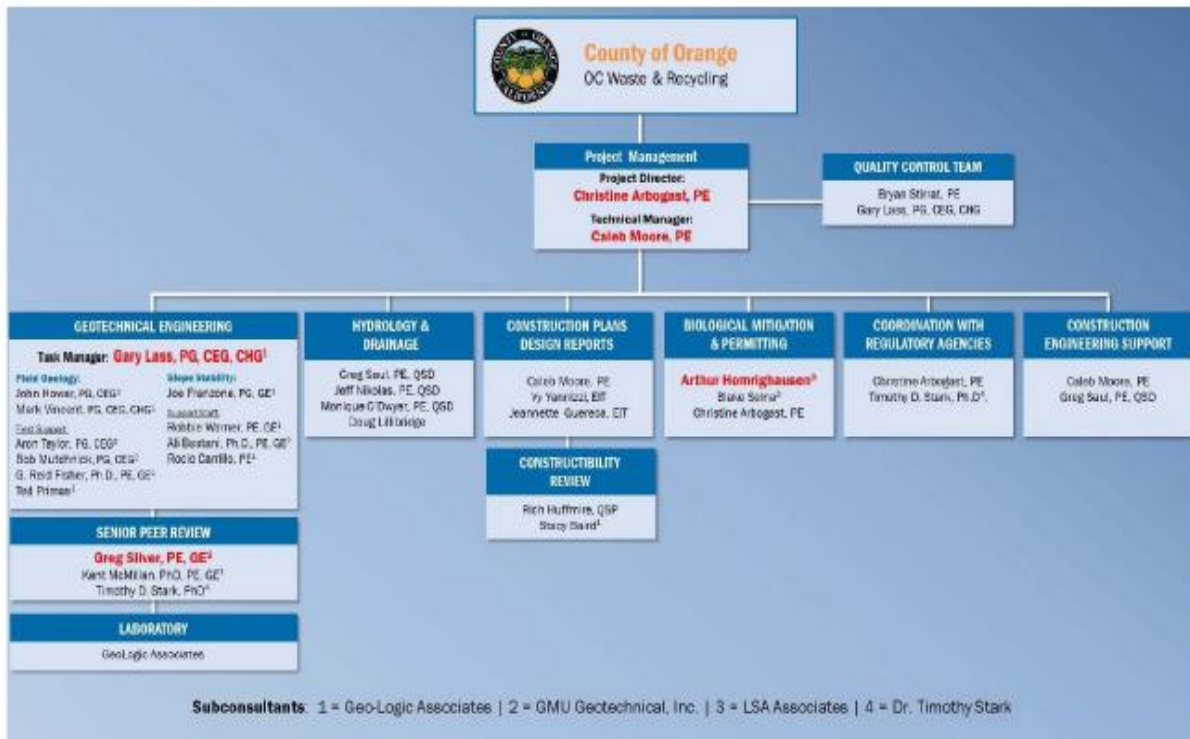
<b>Task</b>	<b>TOTAL FEE</b>
<b>Task 1 - Review Existing Data</b>  <i>Task 1 Total</i>	<b>\$11,637</b>
<b>Task 2 - Geotechnical Engineering</b>  <i>Task 2 Total</i>	<b>\$296,300</b>
<b>Task 3 - Hydrology and Drainage Design</b>  <i>Task 3 Total</i>	<b>\$47,306</b>
<b>Task 4 - Grading, Construction and Improvement Plans</b>  <i>Task 4 Total</i>	<b>\$381,183</b>
<b>Task 5 - Prepare Basis of Design Reports and Design Reports</b>  <i>Task 5 Total</i>	<b>\$93,728</b>
<b>Task 6 - Biological Mitigation and Permitting</b>  <i>Task 6 Total</i>	<b>\$21,316</b>
<b>Task 7 - Coordination with A/E Firms and Regulatory Agencies</b>  <i>Task 7 Total</i>	<b>\$74,768</b>
<b>Task 8 - As-Needed A/E Services</b>  <i>Task 8 Total</i>	<b>\$73,762</b>
<b>Total Hours</b>	
<b>Total Fee</b>	<b>\$1,000,000</b>



## EXHIBIT B

### KEY PERSONNEL

#### Organization Chart



Attachment A  
**EXHIBIT C**  
**FEE SCHEDULE**

**TETRA TECH BAS, INC.**  
**OC WASTE & RECYCLING**  
**ZONE 1 PHASE D LINER DESIGN PROJECT AT PRIMA DESHECHA LANDFILL**  
**2013 - PROJECT COMPLETION SCHEDULE OF FEES**

<u>Personnel</u>	<u>Rate/Hr.</u>
Principal/Principal Engineer (PRE)	\$209
Principal Solid Waste Planner (PSW)	\$204
Division Engineer (DE)	\$199
Senior Project Manager (SM)/Senior Construction Manager	\$189
Project Manager (PM)	\$174
Engineer VII (E-VII)	\$157
Engineer VI (E-VI)	\$147
Engineer V (E-V)	\$139
Engineer IV (E-IV)	\$127
Engineer III (E-III)	\$120
Engineer II (E-II)	\$110
Engineer I (E-I)	\$100
Engineer (E)	\$87
Electrical Engineer (EE)	\$158
Senior Project Designer (SPD)	\$147
Project Designer (PD)	\$138
Senior Designer (SDD)	\$126
CADD Designer/Drafter (CD)	\$121
Designer (DD)	\$115
Senior Drafter (SD)	\$107
Drafter (D)	\$99
Senior CADD Operator (SCO)	\$87
CADD Operator (CO)	\$71
Regulatory Compliance Manager (RCM)	\$142
Senior Regulatory Compliance Specialist (SRS)	\$137
Regulatory Compliance Specialist II (RS-II)	\$129
Regulatory Compliance Specialist I (RS)	\$111
Senior Environmental Scientist (SNS)	\$136
Senior Environmental Specialist (SES)	\$119
Environmental Specialist III (ES-III)	\$114
Environmental Specialist II (ES-II)	\$107
Environmental Specialist I (ES-I)	\$95
Environmental Specialist (ES)	\$84
Landscape Architect (LA)	\$114
Project Accountant/Analyst (AA)	\$81
Senior Project Coordinator (SPC)	\$139
Project Coordinator (PC)	\$84
Senior Technical Editor (STE)	\$85
Administrative Assistant II (AAIL)	\$102



## Attachment A

Administrative Assistant I (AAI)	\$67
Data (DP)/Word Processing Secretary (WP)	\$80
Office Services Clerk (OS)	\$77
Construction Manager (CM)	\$158
Construction Supervisor (CS)	\$135
Chief Engineering Technician (CT)	\$114
Construction Engineering Technician (CET)	\$130
Chief of Survey Parties (CSP)	\$130
3-Man Survey Party (SP-3M)	\$263
2-Man Survey Party (SP-2M)	\$215
1-Man Survey Party with GPS (1M-GPS)	\$195
Principal Geologist (PRG)	\$209
Senior Geologist (SrG)	\$184
Senior Project Geologist (SPG)	\$159
Project Geologist (PG)	\$148
Senior Staff Geologist (SSG)	\$126
Staff Geologist (SG)	\$105
Soils/Asphalt/Field Technician (ST)	\$112
Technical Assistant (TA)	\$87

Overtime Premium is 50% of Personnel Hourly Rate / Reimbursables will be charged at 3% of labor / Outside services and subconsultants (not listed within this Agreement) will be cost plus ten percent (10%)

**GEO-LOGIC ASSOCIATES/GMU ASSOCIATES/TIMOTHY D. STARK  
OC WASTE & RECYCLING  
ZONE 1, PHASE D LINER DESIGN PROJECT AT PRIMA DESHECHA LANDFILL  
2013 TO PROJECT COMPLETION SCHEDULE OF FEES**

<b><u>PROFESSIONAL STAFF</u></b>	<b><u>UNIT RATE</u></b>
Staff Professional	\$109.00/Hour
Project Professional	141.00/Hour
Senior Professional	166.00/Hour
Supervising Professional	181.00/Hour
Principal Professional	208.00/Hour
Court Appearance (Expert Witness, Deposition, etc.; four-hour minimum)	2 x HourlyRate
<b><u>FIELD/LABORATORY STAFF</u></b>	
Technician I	67.00/Hour
Technician II	76.00/Hour
Senior Technician (or Minimum Prevailing Wage)	86.00/Hour
Supervising Technician	109.00/Hour
Managing Technician	131.00/Hour
<b><u>SUPPORT STAFF</u></b>	
CADD/Designer	102.00/Hour
CADD Operator/Geotechnical Draftsperson	85.00/Hour
Geotechnical Clerk/Typist	61.00/Hour
Word Processor	67.00/Hour
<b><u>EQUIPMENT CHARGES</u></b>	
BAT Permeameter	200.00/Day
Compaction Testing Equipment & Supplies	50.00/Day
Peel & Shear Strength Apparatus (FML Seams)	900.00/Month
Portable Laboratory (8' x 32' trailer) with equipment	1,200/Month
Portable Laboratory (mobilization / demobilization)	1,500.00
ReMi/Refraction Seismograph	600.00/Day
Sealed Single Ring Infiltrometer (SSRI)	200.00/Day or 750.00/Month
Sealed Double Ring Infiltrometer (SDRI)	Call for Quote
Slope Inclinator	250.00/Day
<b><u>EXPENSES</u></b>	
Vehicle Use for Field Services	11.00/Hour
Soil Sampling Equipment & Drilling Supplies	5.00/Hour
Groundwater Sampling Equipment and Supplies	15.00/Hour
Per Diem	Lesser of (Cost +15%) or (Local Government Rate)
Outside Services (Consultants, Surveys, Chemical lab Tests, etc.)	Cost + 10%
Reimbursables (Maps, Photos, Permits, Expendable Supplies, etc.)	Cost + 10%
Outside Equipment (Drill Rig, Backhoe, Monitoring Equipment, etc.)	Cost + 10%

<b><u>SOIL TESTING</u></b>	<b><u>TEST METHOD</u></b>	<b><u>UNIT RATE</u></b>
Atterberg Limits (LL, PL, and PI) .....	D4318	\$140.00/Test
California Bearing Ratio (excluding moisture-density curve) ..	D1883	190.00/Point
Chloride Content.....		50.00/Test
Corrosivity Series (resistivity, pH, sulfate, chloride) .....		170.00/Test
Consolidation Test (without rate data – up to 8 loading increments)	D2435	150.00/Test
Consolidation Test (single point) .....	D2435	95.00/Test
Consolidation Test Rate Data (per load increment) .....	D2435	60.00/each
Direct Shear Test (at natural moisture) .....	D3080	65.00/Point
Direct Shear Test (saturated – strain rate 0.0084 inch/min.) ..	D3080	75.00/Point
Direct Shear Test (saturated, recycled – strain rate 0.0084 inch/min.)	D3080	120.00/Point
Direct Shear Test (consolidated drained) .....	D3080	150.00/Point
Direct Shear Test (consolidated drained, residual).....	D3080	200.00/Point
Direct Shear Test (large shear box, 12 x 12) .....	D3080	270.00/Point
Expansion Index Test .....	D4829	125.00/Test
Grain-Size Analysis - Sand-Clay, including Hydrometer .....	D422/D6913	150.00/Test
Grain-Size Analysis - Gravel-Clay, including Hydrometer .....	D422/D6913	185.00/Test
Harvard Miniature Compaction Test .....		235.00/Test
Mechanical Analysis, Percent Passing #200.....	D1140/C117	65.00/Test
Mechanical Analysis - Sand or Gravel (no wash) .....	D422/C136	70.00/Test
Mechanical Analysis - Sand and Gravel .....	D422/C136	155.00/Test
Mechanical Analysis - Sand or Gravel.....	D422/C136	120.00/Test
Mechanical Analysis - Minus 3” to 200 Sieve, Full Sieve .....	D422/C136	130.00/Test
Moisture Content.....	D2216/D4643	16.00/Test
Moisture Density Curve for Compacted Fill (4-inch Mold) .....	D698	150.00/Test
Moisture Density Curve for Compacted Fill (6-inch Mold) .....	D698	175.00/Test
Moisture-Density Curve for Compacted Fill (4-inch Mold).....	D1557	160.00/Test
Moisture-Density Curve for Compacted Fill (6-inch Mold).....	D1557	190.00/Test
Moisture-Density Single Point .....	T272	80.00/Test
Moisture-Density Curve.....	Cal 216	160.00/Test
Organic Matter.....	D2974	85.00/Test
Permeability (falling head).....	CAL220	180.00/Test
Permeability (flexible wall) .....	D5084	300.00/Test
Permeability (rigid wall - constant head pressure, 2” to 8” mold)	D2434	250.00/Test
Permeability (rigid wall - constant head pressure, 12” mold) ..	D2434	410.00/Test
Permeability (additional consolidation stresses).....		95.00/stage
Permeability (air) .....	D6539	285.00/Test
Pinhole Dispersion Test; 4 increments (remold sample) .....	D4647	400.00/Test
Resistance Value .....	D2844	210.00/Test
Resistivity & pH Test .....	Cal 532 or 643	90.00/Test
Sand Equivalent .....	Caltrans 217/D2419	75.00/Test
Soil pH .....	D4972	55.00/Test
Specific Gravity - Fine-Grained Soils .....	D854	75.00/Test
Sulfate Content .....		50.00/Test
Triaxial Compression Test (CD) .....	D4767 (modified)	575.00/Point
Triaxial Compression Test (CU with pore pressure) .....	D4767	425.00/Point
Triaxial Compression Test (UU).....	D2850	125.00/Test
Triaxial Compression Test [Stage (Progressive) Test; CU] .....	D4767	1,000.00/Set
Unconfined Compression Test (undisturbed sample) .....	D2166	75.00/Test
Unit Dry Weight and Moisture Content (undisturbed sample)	D7263/D2216	22.00/Test

<b><u>AGGREGATE TESTING</u></b>	<b><u>TEST METHOD</u></b>	<b><u>UNIT RATE</u></b>
Clay Lumps and Friable Particles .....	C142 .....	\$80.00/Test
Crushed Particles (Fractured Faces) .....		95.00/Test
Durability Index – Fine .....	D3744 .....	120.00/Test
Durability Index – Coarse .....	D3744 .....	140.00/Test
Flat and Elongated Particles.....	CRD119, 120.....	105.00/Test
Injurious Organic Matter .....	C40 .....	60.00/Test
Insoluble Residue in Carbonate Aggregates .....	D3042 .....	275.00/Test
Lightweight Pieces in Aggregate .....	C123 .....	95.00/Test
Los Angeles Abrasion Test (500 revolutions).....	C131 .....	160.00/Test
Los Angeles Abrasion Test (1000 revolutions).....	C535 .....	180.00/Test
Mechanical Analysis - Sand or Gravel (dry sieve) .....	C136 .....	70.00/Test
Mechanical Analysis (wash 200 sieve).....	C117 .....	65.00/Test
Mechanical Analysis (fine with wash 200 sieve).....	C136 .....	100.00/Test
Rapid Determination of Carbonate Content of Rock.....	4373 .....	120.00/Test
Sample Crushing .....		75.00/Hour
Sand Equivalent .....	D2419 .....	75.00/Test
Specific Gravity, Bulk, SSD with Absorption.....	C128/C127.....	110.00 Each
Sulfate Soundness, per sieve size .....	C88 .....	135.00/Test

<b><u>ROCK TESTING</u></b>	<b><u>TEST METHOD</u></b>	<b><u>UNIT RATE</u></b>
Density .....	D7263	\$35.00/Test
Density, Porosity, Specific Gravity, Water Content .....		110.00/Test
Indirect Tensile Strength (Brazilian), Single Break .....	D3967	55.00/Test
Indirect Tensile Strength (Brazilian), 10-15 Breaks.....	D3967	210.00/Test
Point Load Index, Single Break.....	D5731	35.00/Test
Point Load Index, 10-15 Breaks .....	D5731	180.00/Test
Rip-Rap (wet / dry, 10 cycles) .....	D5318	1,000.00/Test
Rip-Rap (freeze / thaw, 10 cycles) .....	D5312	800.00/Test
Rip-Rap (specific gravity) .....	D6473	110.00/Test
Rip-Rap Soundness (sodium) .....	D5240	400.00/Test
Rock Joint Direct Shear .....		260.00/Point
Rock Joint Direct Shear, additional normal load.....		95.00/Test
Slake Durability .....	D4644	200.00/Test
Triaxial Compression, with Young's modulus and Poisson's ratio		495.00/point
Uniaxial Strength (peak only; 2.5" maximum).....	D7012	130.00/Test
Uniaxial Strength (with stress-strain curve) .....		call for quote
Uniaxial Strength (with stress-strain curve, add modulus and Poisson ratio)		call for quote
Rock preparation, cutting, and grinding .....		85.00/Hour

<b><u>GEOSYNTHETIC MATERIALS</u></b>	<b><u>TEST METHOD</u></b>	<b><u>UNIT RATE</u></b>
<b><i>Seam Coupon Series (thickness, peel, and shear)</i></b>		
Set of 5 each (Quantity 1-10).....	D6392	\$75.00/Test
Set of 5 each (Quantity 10 or more) .....	D6392	55.00/Test
Asperity Height .....	GRI GM12	35.00/Test
Liner Puncture Testing up to 350 psi .....		260.00/Test
Liner Puncture Testing over 350 psi .....		410.00/Test

**Large Scale Direct Shear (ASTM D5321 and D6321)**

Geosynthetic vs Geosynthetic – Method A .....	210.00/Point
Soil vs Geosynthetic Friction – Method B .....	260.00/Point
GCL Internal Shear .....	310.00/Point
Shear Speed (<0.04) .....	110.00/Point
(Shear rate dependent on soil drainage characteristics and engineering specifications)	
Substrate Remolding Fee .....	60.00/Test
Additional Saturation Time (>24 hours) .....	60.00/Day

**GCL Testing**

Index Flux Testing .....	D5887 .....	270.00/Test
Fluid Loss.....	D5891 .....	75.00/Test
Swell Index .....	D5890 .....	70.00/Test
Mass per Unit Area .....	D5993 .....	70.00/Sample
Custom Liner Testing .....		call for quote

All test methods are ASTM unless otherwise noted.

Special sample preparation and laboratory testing not listed above will be charged at applicable personnel rates.

All laboratory test rates are for standard turn-around time and normal reporting procedures. Rush orders will be subject to a 25 percent premium. Manpower requirements or test protocol may preclude the granting of a rush request.

**Exhibit C**  
**LSA ASSOCIATES, INC.**  
**OC Waste & Recycling**  
**Zone 1, Phase D - Liner Design Project at Prima Deshecha Landfill**  
**Schedule of Fees - 2013 thru Project Completion**

CLASSIFICATION	Rates	
Principal	\$ 196.46	/hr
Associate Biologist/Archaeologist/Paleontologist/Project Manager	\$ 128.17	/hr
Senior Biologist/Archaeologist/Paleontologist	\$ 120.82	/hr
Biologist/Archaeologist/Paleontologist	\$ 98.62	/hr
Assistant Biologist/Archaeologist/Paleontologist/Office Assistant/Field Crew	\$ 77.32	/hr
GIS Technician	\$ 112.20	/hr
Graphics	\$ 96.90	/hr
Technical Editor	\$ 69.34	/hr
Word Processor	\$ 60.93	/hr
Depositions/Court Appearance	\$ 204.00	/hr
REIMBURSABLE RATES	Rates	
Estimated on-road mileage (based on current IRS rate)	IRS Rate	mi
Black and white reproduction	\$ 0.10	page
Color reproduction (8.5x11)	\$ 1.00	page
Color reproduction (11x17)	\$ 2.50	page
Plotting	\$ 3.75	sq. ft.
CD production	\$ 5.00	per CD
Aerial photographs	actual cost	photo
Sub-meter-accurate GPS unit, Sound Meter, Fiber Optic Scope, Wildlife Cameras, Acoustic (Bat) Detection Equipment	\$ 100.00	day
Wire pin flags (actual cost up to \$10/bundle of 100)	\$ 10.00	bundle
Flagging ribbon (actual cost up to \$2/roll)	\$ 2.00	roll
Stake chasers (actual cost up to \$4/bundle of 25)	\$ 4.00	box
Soil tests (actual cost up to \$325/test)	\$ 325.00	test

Attachment A  
**EXHIBIT D**

**County of Orange Child Support Enforcement Contract Terms and Conditions**

*ADDITIONAL TERMS AND CONDITIONS*

In order to comply with the child support enforcement requirements of the County of Orange, within 30 of the Agreement Effective Date, the A-E agrees to furnish the required data and certifications to the Director, the Purchasing Agent, or the agency/department deputy purchasing agent.

Failure of the A-E to timely submit the data and/or certifications required or to comply with all federal, state, and local reporting requirements for child support enforcement or to comply with all lawfully served Wage and Earnings Assignment Orders and Notices of Assignment shall constitute a material breach of the contract. Failure to cure such breach within 60 calendar days of notice from the County shall constitute grounds for termination of the contract.

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**County of Orange Child Support Enforcement Certificate**

*"I certify that \_\_\_\_\_ is in full compliance with all applicable federal, state, and local reporting requirements regarding its employees and with all lawfully served Wage and Earnings Assignment Orders and Notices of Assignments and will continue to be in compliance throughout the term of Contract \_\_\_\_\_, with the County of Orange. I understand that failure to comply shall constitute a material breach of the contract and that failure to cure such breach within 60 calendar days of notice from the County shall constitute grounds for termination of the contract."*

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*Signature\** *Name (Please Print)*

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*Title* *Date*

---

*Company Name*

*Contract Number*

**\*Two signatures required if a corporation.**

## **REGULATORY COMPLIANCE REQUIREMENTS (COUNTY)**

**The A-E shall not be entitled to any time extensions or compensation for any cost due to any action required as a result of the A-E's failure to comply with those provisions within the A-E's control as listed below. The A-E shall be responsible for ensuring that the A-E's subcontractor(s) and Team Member(s) comply with the provisions of this Section. The A-E shall be liable for any action or inaction resulting in a fine imposed by the regulatory agencies on those incidents of noncompliance that is within the A-E's area of responsibility.**

### **1. PERMITS**

- A. The A-E shall be responsible for obtaining all trade-related permits required by the Task Order, permits required for the operation and storage of any equipment or hazardous regulated materials brought onsite, and permits required for dispensing and storing of petroleum-related products.
- B. The A-E shall maintain copies of all permits required for construction required by a Task Order at the job site. Exceptions to this shall be the South Coast Air Quality Management District (SCAQMD) permit for dust control and the SCAQMD permit and Local Enforcement Agency (LEA) approval for refuse excavation, if required, which shall be obtained by the County. However, it is still the responsibility of the A-E to comply with the conditions in the SCAQMD permits and all other permits, which shall become a part of this Agreement. The A-E shall submit to the County a California Occupational Safety Health Agency (Cal-OSHA) Excavation Permit, if necessary. The A-E shall obtain a copy of the landfill's National Pollutant Discharge Elimination System (NPDES), Storm Water Pollution Protection Plan (SWPPP) and Monitoring Program (MP) and comply with the conditions therein that are applicable to the A-E.

### **2. REGULATORY COMPLIANCE AUTHORITIES**

All work shall be performed in accordance with the most current regulatory criteria and standards, which include, but are not limited to:

- Waste Discharge Requirements issued by the respective California Regional Water Quality Control Boards;
- Resource Conservation and Recovery Act, Subtitle D;
- California Code of Regulations Titles 8 (Cal-OSHA), 14, 23, and 27;
- South Coast Air Quality Management District Rules 403, Title V, NSPS and 1150.1;
- National Pollutant Discharge Elimination System (NPDES) including Construction General and Industrial General Permits;
- County of Orange OC Public Works, ; County of Orange OC Public Works Grading Manual and Excavation Code;
- Uniform Fire Code;
- Others may include: APWA Standard Specifications, current County of Orange Hydrology Manual and California Environmental Quality Act, as well as instructions set forth by the Director of OC Waste & Recycling or designee; and
- Any other agency permits pertinent to the Project.



**3. ORDINANCES**

Construction shall conform to all Federal, State, County, and local codes, ordinances, regulations, and standards having jurisdiction thereof. In the case of conflict between any such applicable documents mentioned above and the specifications and drawings, the highest requirement shall govern. No additional charges shall be allowed for any changes to make work conform to regulations of above-mentioned documents or governing agencies, but shall be considered as completely included in the Task Order price.

**4. CULTURAL/SCIENTIFIC RESOURCES**

- A. The County may employ the services of a paleontological/archaeological firm to monitor the excavation at the project site. The A-E shall cooperate with the personnel of the firm. In the event the paleontologist or archaeologist asks the A-E to stop work in a particular section of the excavation, the A-E shall abide by the request immediately.
- B. If the A-E's operations uncover, or A-E's employees find any burial grounds or remains, ceremonial objects, petroglyphs, and archaeological or paleontological, or other artifacts of like nature within the construction area, the A-E shall immediately notify the County's onsite representative of the A-E's findings and shall modify the construction operations, so as not to disturb the findings pending receipt of notification as to determination of the final disposition of such findings from the County.
- C. Should the findings, or notification as to disposition of findings, result in delays or extra work, additional time and/or extra work, payment will be allowed as provided for within the Task Order.
- D. Any findings of a cultural/scientific resource nature shall remain the property of the County and not become the property of the person or persons making the discovery.

**5. DISPOSAL OF SOLID WASTE**

The A-E shall be responsible for proper disposal of all refuse. Unless the waste meets Class III solid waste criteria, and any other requirements in the landfill's solid waste facilities permit, the A-E shall not dispose of said waste at the landfill. If the A-E elects to dispose of Class III refuse in any OC Waste & Recycling operated landfill, the A-E shall be responsible for processing refuse through the scales and shall pay the current gate fees, unless it is specified otherwise in the Task Order.

Solid waste resulting from maintenance and service may be disposed of within the active landfill at no charge if acceptable within the guidelines of a Class III landfill and approved in writing by the County. The A-E shall contact the PM prior to disposal of solid waste resulting from maintenance and service. Furthermore, the A-E shall not dispose of such waste prior to receipt of a written approval from the PM, which identifies a designated disposal area.

Any other solid waste or liquid waste resulting from service and maintenance that is unacceptable for disposal in a Class III landfill (including tires) shall be the sole responsibility of the A-E and the cost of disposal shall be included as part of the Task Order. The A-E shall arrange for a State approved waste-handling firm to dispose of any material classified as hazardous or unacceptable waste. This firm shall be bonded and found acceptable to County of Orange CEO/Risk Management. The A-E shall submit proof of this firm being retained by the A-E within ten (10) calendar days of the effective date of this Agreement. Any unacceptable refuse left beyond thirty (30) days may be disposed of by the County and any related costs shall be deducted directly from the monthly invoicing, performance bond, or other method at the option of OC Waste & Recycling.

**6. DISPOSAL OF LIQUID WASTE**

The County does not permit disposal of liquid waste of any kind in County landfills. This includes any waste materials, sludge, soils, etc. with moisture content over 50%.

**7. STORM PROTECTION**

- A. The A-E shall take every practicable precaution to minimize danger to persons and to the work during rainy or windy conditions. The County shall protect all County facilities within their work project. Also the A-E shall protect all facilities from damage.
- B. As part of its storm protection, the A-E shall provide a storm water management plan (erosion control plan), to be reviewed and approved by the County. (The County is not responsible for damage if the Storm Water Management Plan is deficient or inadequate for managing storm water flows.)

**8. NPDES STORM WATER DISCHARGES**

Work under this Agreement shall be subject to the requirements of the NPDES storm water regulations.

The A-E shall comply with the NPDES Regulations and the Storm Water Pollution Protection Plan for the landfill at which the work is to be conducted. Construction-related activities, including but not limited to the elements of the SWPPP, shall be performed to eliminate non-storm discharges to the storm water control system, by the A-E and subcontractor(s). The A-E shall submit a Storm Water Management Plan in compliance with NPDES Regulations and Site specific SWPPP. OC Waste & Recycling will notify the A-E of any non-compliance with the foregoing stipulations, and appropriate actions shall be taken promptly. The A-E shall also notify OC Waste & Recycling of any condition that could lead to noncompliance with the permit requirements. The A-E shall be responsible for storm water monitoring at the landfill to comply with his proposed storm water plan, if necessary.

The A-E shall not be entitled to any time extensions or compensation for any cost due to any action required as a result of the A-E's failure to comply with those provisions of the SWPPP within the A-E's control. The A-E shall be responsible for ensuring that the A-E's subcontractor(s) comply with the provisions of this Section. The A-E shall be liable for any action or fine imposed by the regulatory agencies on those incidents of noncompliance that are within the A-E's area of responsibility.

The A-E will be required to prepare a NPDES Construction General Permit Notice of Intent (NOI) if required. The County will submit the NOI as the Legally Responsible Party (LRP)

**9. DISCOVERED HAZARDOUS WASTE**

- A. The A-E shall promptly, and before the following conditions are disturbed, notify the County in writing of any:
  - (1) Material that the A-E believes may be hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law;
  - (2) Subsurface or latent physical conditions at the site differing from those indicated; and
  - (3) Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract.
- B. The County shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve a hazardous waste, and cause a decrease or increase in the A-E's cost of, or the time

required for, performance of any part of the work, the County shall issue a Change Order under the procedures described in the Contract. If hazardous waste is found, the County will contact its key waste A-E to properly remove and dispose of the waste. The A-E shall not disturb the waste. The A-E shall immediately notify the County if the waste is found leaking, not containerized, or vapors or odors are detected.

- C. In the event that a dispute arises between the County and the A-E where the conditions materially differ, or involve hazardous waste, or a decrease or increase in the A-E's cost of or the time required for performance of any part of the work, the A-E shall not be excused any scheduled completion date provided for by the Contract, but shall proceed with all work to be performed under the Contract. The A-E retains any and all rights provided either by the Contract or by law pertaining to the resolution of disputes and protests between the contracting parties.

## **10. A-E GENERATED HAZARDOUS WASTE**

The A-E is responsible for the proper handling, storage, transportation (per all Federal, State and Local Regulations), and disposal of any hazardous wastes, liquid wastes or nuisance wastes (i.e. finely divided, powdery/dusty materials, strong odor, etc.) it generates on County property or elsewhere when performing work on the County's behalf.

The A-E must have an OC Waste & Recycling Safety Officer reviewed and County approved Emergency/Contingency Plan for handling spills of hazardous, liquid or nuisance materials it is using while working on County property or elsewhere when performing work on the County's behalf. This shall include proper handling, removal and disposal of these materials per all applicable Federal and State requirements. The Plan shall also include emergency notification to County staff and emergency personnel.

The spill-damaged area(s) must be restored/repared to its original condition by the A-E in a correct and timely manner and to the satisfaction of the County.

The A-E shall provide copies of all manifests, bills of lading, etc. to the County upon request to verify proper disposal to a licensed, permitted facility has occurred.

The County has the authority to perform inspections of the A-E's work area at any time to insure all applicable regulations are being adhered to.

The A-E is responsible for training their employees, as required by OSHA CCR Title 8, in the proper handling, storage, transportation and disposal of hazardous materials. These employees must also be trained in the Emergency/Contingency Plan and know immediate response procedures should a release occur.

The A-E shall keep emergency response equipment and materials available in the working area, should a release occur.

## **11. FUGITIVE DUST EMISSION CONTROL**

The A-E shall comply with the requirements of the OC Waste & Recycling Fugitive Dust Emission Control Plan in conformance with the SCAQMD Rule 403. The A-E shall also notify OC Waste & Recycling any condition that could lead to noncompliance with the permit requirements.

The A-E shall submit a Dust Control Plan to be received and approved by the County.

If the A-E fails or refuses to correct the noncompliance immediately, OC Waste & Recycling may terminate the A-E's right to proceed with the work, by written notice to the A-E. In such event, OC Waste & Recycling may take over the work and prosecute the same to completion, by contract or otherwise at the A-E's expense, and may take possession of and utilize in completing the work such materials, appliances, and plants as may be on

the site of the work and necessary therefore. Whether or not the A-E's right to proceed with the work is terminated, the A-E and the A-E's Sureties shall be liable for any damage to the County resulting from the A-E's refusal or failure to complete the work within the specified time. The A-E shall not be entitled to any time extensions or compensation for any cost due to any such action as a result of the A-E's failure to comply with those provisions of the OC Waste & Recycling Fugitive Dust Emission Control Plan within the A-E's control. The A-E shall be responsible for ensuring that all sub A-E(s) comply with the provisions of this section. The A-E shall be liable for any action or fine imposed by the SCAQMD on those incidents of noncompliance that are within the A-E's area of responsibility.

OC Waste & Recycling's Fugitive Dust Emission Control Plan (SCAQMD Rule 403-Fugitive Dust-April 1993) is available for review by the A-E in the offices of the OC Waste & Recycling Project Manager.

## **12. BIOLOGICAL AND HABITAT PROTECTION**

OC Waste & Recycling will inform the A-E of any biological resources that would or could be impacted by the project, and specify any required mitigation measures or procedures to protect those resources during construction. The A-E shall be responsible for complying with these protection measures, and for ensuring that all sub A-Es also comply. The County has the authority to perform inspections of the A-E's work area at any time to ensure that these measures or procedures are being followed.

## **13. MAINTENANCE FACILITY AND WORK AREA**

Maintenance facility areas have been designated at the Landfill for the purpose of maintaining County equipment. This area is intended to be available for use by the County's Equipment Maintenance A-E and for other contractors and haulers only upon permission and at the convenience of OC Waste & Recycling. Any contractor permitted to utilize this area shall inspect the area and comply with any and all provisions of these Regulatory Compliance Section Articles. All contractors shall keep the facility clean. If this facility becomes unavailable to the County's Equipment Maintenance A-E for any reason, the County's Equipment Maintenance Contractor shall be provided an alternate location acceptable to the OC Waste & Recycling Regional Project Manager or designee. No such guarantee of an alternate location is made to any other contractor or hauler by the County. All costs related to relocating the facility is the sole responsibility of the County's Equipment Maintenance Contractor and shall be included as part of the fixed rate price agreement.

Any damage or repairs caused by the A-E or his vendors/suppliers to the designated maintenance area or other landfill facilities/projects shall be paid for or repaired by the A-E to the satisfaction of OC Waste & Recycling. All construction and/or replacement shall be done with materials and equipment of the same kind constructed or product installed. If the A-E does not repair the damaged facility/area within thirty (30) calendar days, the A-E shall pay for all construction/installation and related costs performed by the County by direct deduction plus a five percent (5%) administration fee from the monthly invoice or by invoiced separate payment. Any facility considered crucial to the operation of the landfill must be repaired immediately and costs shall be paid by direct deduction plus a five percent (5%) administrative fee as above indicated in the same manner.

The A-E shall be responsible for maintaining clean equipment and a clean working area. Removal of contaminated soil as a result of maintenance activities shall be the sole responsibility of the A-E and shall be mitigated to OC Landfill's satisfaction immediately following written notice from the OC Waste & Recycling Project Manager. The area of contamination may be tested and certified by a third independent party qualified to conduct the evaluation. The proposed certifying firm shall submit qualifications to the OC Waste & Recycling Project Manager for acceptance and approval. All costs associated with contaminated soil removal, disposal and certification, if necessary, shall be the sole responsibility of the A-E. Prior to removal, the A-E must provide a manifest of transport showing legal disposal of contaminated material. A copy of the manifest, certified and approved by the disposal location, shall be provided to OC Waste & Recycling prior to shipment. If the manifest is not submitted,

OC Waste & Recycling will withhold or deduct directly the estimated cost of removal and disposal from monthly invoice, plus five percent (5%) administration fee until the manifest or appropriate documentation is submitted by the A-E.

Upon written notice from the OC Waste & Recycling Project Manager, if the A-E does not comply with the removal of the contaminated soil immediately, OC Waste & Recycling will remove, process, transport, and certify the material as stated above and all costs incurred by OC Waste & Recycling for removal and disposal, plus a five percent (5%) administrative fee will be deducted directly from the A-E's monthly invoice or through supplemental payment as approved by the OC Waste & Recycling Project Manager or designee.

The A-E shall be responsible for the storage and protection of any and all products in accordance with manufacturer instructions; product seals and labels shall be intact and legible, and sensitive products shall be stored in weather tight, climate controlled enclosures. The A-E shall arrange storage of products to permit access for inspection by OC Waste & Recycling or enforcement agency personnel.

**14. RED IMPORTED FIRE ANT INTERIOR QUARANTINE OF ORANGE COUNTY**

The A-E shall be responsible for strict compliance with the quarantine of the County of Orange for the red imported fire ant as defined in the California Food and Agricultural Code in Division 4, Chapter 3, Subchapter 4, Article 4, Section §3432 incorporated herein by reference with regards to the quarantine area, the commodities covered, and the restriction on movement, possession and sale of commodities covered. Violation of any provision of this Article of this Agreement and/or the State mandate by the A-E shall require the A-E to bear the full financial responsibility of any assessed fine or penalty on the County, indemnify the County by the completion and submission for County approval of an acceptable, detailed, incident report within five working days of the date of the violation or not later than five working days from the date of the notification of the violation, whichever is the later.