

THE BOARD OF SUPERVISORS OF THE COUNTY OF STANISLAUS  
BOARD ACTION SUMMARY

DEPT: Environmental Resources

BOARD AGENDA #: \*B-5

AGENDA DATE: June 7, 2016

**SUBJECT:**

Approval to Enter into a Contract for Professional Design Services with Tetra Tech BAS, Inc. for the Design of Two Class III Landfill Cells for the Disposal of Municipal Solid Waste

**BOARD ACTION AS FOLLOWS:**

No.

2016-277

On motion of Supervisor Chiesa, Seconded by Supervisor Withrow  
and approved by the following vote,

Ayes: Supervisors: O'Brien, Chiesa, Withrow, DeMartini, and Chairman Monteith

Noes: Supervisors: None

Excused or Absent: Supervisors: None

Abstaining: Supervisor: None

1)  Approved as recommended


2)  Denied

3)  Approved as amended

4)  Other:

MOTION:

ATTEST:

  
ELIZABETH A. KING, Clerk of the Board of Supervisors

File No.

**THE BOARD OF SUPERVISORS OF THE COUNTY OF STANISLAUS  
AGENDA ITEM**

DEPT: Environmental Resources  
Urgent  Routine

BOARD AGENDA #: \*B-5

AGENDA DATE: June 7, 2016



CEO CONCURRENCE: *pkc*

4/5 Vote Required: Yes  No

---

**SUBJECT:**

Approval to Enter into a Contract for Professional Design Services with Tetra Tech BAS, Inc. for the Design of Two Class III Landfill Cells for the Disposal of Municipal Solid Waste

---

**STAFF RECOMMENDATIONS:**

1. Approve the Professional Design Services Agreement No. A031616 with Tetra Tech BAS, Inc., for the design of two Class III landfill cells at the Fink Road Landfill, for a not to exceed amount of \$180,830.
2. Authorize the Director of Environmental Resources, or designee, to execute the Agreement with Tetra Tech BAS, Inc. and to sign any necessary documents.
3. Authorize the Director of Environmental Resources, or designee, to sign amendments to the Agreement for an overall total not-to-exceed amount of \$198,913, which includes a contingency of \$18,083.

**DISCUSSION:**

The Department of Environmental Resources (DER), Landfill Division, maintains and operates the Fink Road and Geer Road Landfills. The day-to-day operation and maintenance of the Fink Road Landfill is performed by in-house staff, however, specialized services and expertise are needed in the area of professional engineering services and related work necessary to conceptualize, design, and permit the construction of two base liner systems for the next two new cells at the Fink Road Landfill in order to ensure that adequate disposal capacity is maintained.

The Fink Road Landfill is currently disposing of Class III Municipal Solid Waste (MSW) in Landfill 2, Cell Number 5. Class III MSW consists of residential, commercial, and industrial waste including construction and demolition debris. It is estimated that this cell has approximately 4-5 years of disposal capacity remaining. The two new cells to be designed are within the existing landfill permitted area and will also be for the disposal of Class III MSW. These cells are referred to as Landfill 2, Cell Numbers 6 and 7. Together, they will provide approximately 8-9 years of disposal capacity for Stanislaus County. It is anticipated that these cells will be ready for use by the end of 2018. This Agreement is for the design of both contemplated cells, concurrently, due to the relatively small capacity of Cell 7. The design of

Approval to Enter into a Contract for Professional Design Services with Tetra Tech BAS, Inc. for the Design of Two Class III Landfill Cells for the Disposal of Municipal Solid Waste

---

both of these cells at the same time takes advantage of a scaled cost savings and would allow a similar cost savings if the County is able to construct both at the same time. Designing the two cells now will ensure continued disposal capacity is maintained.

The Department of Environmental Resources, in partnership with the General Services Agency (GSA) Purchasing Division, issued a Request for Proposal (RFP) on January 6, 2016, for this project. The RFP period closed on February 11, 2016, and the GSA Purchasing Division conducted the opening of the proposals on the closing date.

On February 11, 2016, five consultants submitted their qualifications for review. All consultants were evaluated and scored on qualifications only. The consultants' proposed rates were included but were not part of the initial evaluation process. The consultants that submitted proposals are as follows:

- Geo-Logic Associates
- Geosyntec Consultants
- Golder Associates, Inc.
- SCS Engineers
- Tetra Tech BAS, Inc.

The initial evaluation was completed by an evaluation committee consisting of three evaluators: one member from the Department of Environmental Resources Administration, one from the Landfill Division, and one from the Solid Waste Division. The consultants were initially evaluated on the following criteria:

- The Proposer's Overall Response;
- Professional Qualifications; and
- Understanding of the Project.

The consultants' proposed pricing was later evaluated by GSA's Purchasing Division and, along with the overall scoring from the initial evaluation, was used to rank the proposals in the following order:

Ranking	Consultant
1	Tetra Tech BAS, Inc.
2	Golder Associates, Inc.
3	Geo-Logic Associates
4	SCS Engineers
5	Geosyntec Consultants

Approval to Enter into a Contract for Professional Design Services with Tetra Tech BAS, Inc. for the Design of Two Class III Landfill Cells for the Disposal of Municipal Solid Waste

---

Environmental Resources and GSA Purchasing staff selected Tetra Tech BAS, Inc., as the most qualified consultant based on the results of the evaluation criteria. On March 16, 2016, the GSA Purchasing Division issued a letter of intent to award to Tetra Tech BAS, Inc., and contract terms have been agreed upon.

**POLICY ISSUE:**

The Fink Road Landfill services Stanislaus County and its incorporated municipalities for the disposal of solid waste. In order to remain compliant with State law and Stanislaus County's General Plan, adequate disposal capacity must be available and planned to provide for present and anticipated community growth.

**FISCAL IMPACT:**

Sufficient appropriations exist in the Fiscal Year 2015-2016 Adopted Final Budget for the Fink Road Landfill to cover the cost of these anticipated design services for the construction of Cells 6 & 7.

<b>Cost of recommended action:</b>		\$ 198,913
<b>Source(s) of Funding:</b>		
Fink Road Landfill Fund Balance	\$ 198,913	
<b>Funding Total:</b>		\$ 198,913
<b>Net Cost to County General Fund</b>		\$ -

<b>Fiscal Year:</b>	2015-2016
<b>Budget Adjustment/Appropriations needed:</b>	No

<b>Fund Balance as of April 30, 2016:</b>	
Fink Road Landfill	\$ 25,396,470

**BOARD OF SUPERVISORS' PRIORITY:**

The recommended actions are consistent with the Board's priorities of A Safe Community, A Healthy Community, A Well Planned Infrastructure System, and the Efficient Delivery of Public Services. Landfill services are also critical to supporting the Department's mission to promote a safe and healthy environment and improve the quality of life in the community through a balance of science, education, partnerships and environmental regulation.

**STAFFING IMPACT:**

Existing staff will oversee the work related to this Agreement.

**CONTACT PERSON:**

Jami Aggers, Director of Environmental Resources

Telephone: 209-525-6770

Approval to Enter into a Contract for Professional Design Services with Tetra Tech BAS, Inc.  
for the Design of Two Class III Landfill Cells for the Disposal of Municipal Solid Waste

---

**ATTACHMENT(S):**

- A. Professional Design Services Agreement with Tetra Tech BAS, Inc.

# Attachment A



**DEPARTMENT OF ENVIRONMENTAL RESOURCES**

3800 Cornucopia Way, Suite C,

Modesto, Ca 95358-9492

Phone: (209) 525-6700

Fax: (209) 525-6774

**STANISLAUS COUNTY  
PROFESSIONAL DESIGN SERVICES AGREEMENT**

This Agreement is made and entered into by and between the County of Stanislaus, a political subdivision of the State of California, hereinafter referred to as "County" and Tetra Tech BAS, Inc. hereinafter referred to as "Consultant" on June 7, 2016 ("The Agreement").

**NOW, THEREFORE**, for and in consideration of the mutual covenants and conditions contained herein, the parties hereby agree as follows:

**1.0 PROFESSIONAL SERVICES TO BE PROVIDED BY CONSULTANT**

1.1. **Scope of Services:** Consultant shall provide the professional services described in the County's Scope of Work attached hereto as Exhibit "A" and incorporated herein by reference.

1.2. **Professional Practices:** All professional services to be provided by Consultant pursuant to this Agreement shall be provided by personnel experienced in their respective fields and in a manner consistent with the standards of care, diligence and skill ordinarily exercised by professional consultants in similar fields and circumstances in accordance with sound professional practices. Consultant also represents that it is familiar with all laws that may affect its performance of this Agreement and shall advise County of any changes in any laws that may affect Consultant's performance of this Agreement.

1.3. **Representations:** Consultant represents that it has reviewed the Scope of Work and that in its professional judgment the services to be performed under this Agreement can be performed within the maximum fee set forth herein below and within the time specified in the Project Schedule attached hereto. Consultant represents that it is qualified to perform the professional services required by this Agreement and possesses the necessary licenses and permits required to perform said services. Consultant represents that it has no interest and shall not acquire any interest direct or indirect which conflicts, or has the appearance of conflicting, in any manner or degree with the performance of the work and services under this Agreement.

1.4. **Compliance with Laws.** Consultant agrees that it shall perform the services required by this Agreement in compliance with all applicable Federal and California laws including, but not limited to, those laws related to minimum hours and wages; occupational health and safety; fair employment and employment practices; workers' compensation insurance and safety in employment; and all other Federal, State and local laws and ordinances applicable to the services required under this Agreement.

1.5. **Non-Discrimination.** During the performance of this Agreement, Consultant and its officers, employees, agents, representatives or subcontractors shall not unlawfully discriminate in violation of any federal, state or local law, rule or regulation against any employee, applicant for employment or person receiving services under this Agreement because of race, religion, color, national origin, ancestry, physical or mental disability, medical condition (including genetic characteristics), marital status, age, political affiliation, sex or sexual orientation. Consultant and its officers, employees, agents, representatives or subcontractors shall comply with all applicable Federal, State and local laws and regulations related to non-discrimination and equal opportunity, including without limitation the County's nondiscrimination policy; the Fair Employment and Housing Act (Government Code sections 12900 et seq.); California Labor Code sections 1101, 1102 and 1102.1; the Federal Civil Rights Act of 1964 (P.L.

88-352), as amended; and all applicable regulations promulgated in the California Code of Regulations or the Code of Federal Regulations.

1.6. Non-Exclusive Agreement. Consultant acknowledges that County may enter into agreements with other consultants for services similar to the services that are subject to this Agreement or may have its own employees perform services similar to those services contemplated by this Agreement.

1.7. Delegation and Assignment. This is a personal service contract, and the duties set forth herein shall not be delegated or assigned to any person or entity without the prior written consent of County. Consultant may engage a subcontractor(s) as permitted by law and may employ other personnel to perform services contemplated by this Agreement at Consultant's sole cost and expense.

1.8. Covenant Against Contingent Fees. Consultant warrants that he/she has not employed or retained any company or person, other than a bona fide employee working for the consultant; to solicit or secure this agreement; and that he/she has not paid or agreed to pay any company or person other than a bona fide employee, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award, or formation of this agreement. For breach or violation of this warranty, the local agency shall have the right to annul this agreement without liability, or at its discretion; to deduct from the agreement price or consideration, or otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.

## 2.0 COMPENSATION AND BILLING

2.1. Compensation. Consultant shall be paid in accordance with the fee schedule set forth in Exhibit "B", attached hereto and made a part of this Agreement (the "Fee Schedule"). Consultant's compensation shall in no case exceed **One Hundred Eighty Three Thousand Seven Hundred Sixty Three Dollars (\$183,763.00)**. Consultant will be compensated on a time and materials basis, based on the hours worked by the Consultant's employees or subcontractors at the hourly rates specified in the Fee Schedule. The Fee Schedule rates include direct salary costs, employee benefits, and overhead. The rates stated in the Fee Schedule are not adjustable during the term of this Agreement. The County may retain ten percent of all periodic or progress payments made to the Consultant until completion and acceptance of all work tasks and County shall have right to withhold payment from Consultant for any unsatisfactory service until such time service is performed satisfactorily.

2.2. Reimbursements. In addition to the aforementioned fees, Consultant will be reimbursed for any expenses specifically set forth in each Project Authorization Scope of Work. All such reimbursement amounts are limited to those costs and expenses that are reasonable, necessary and actually incurred by the Consultant in connection with the services provided. The County shall not pay a markup on any item of reimbursement including but not limited to travel expenses and hotel expenses. The County shall not pay for any item of overhead such as telephone, facsimile, fuel, company vehicles, postage, etc., and specific items listed in Exhibit B. All requests for reimbursement shall be accompanied by a copy of the original invoice.

2.3. Additional Services. Consultant shall not receive compensation for any services provided outside the scope of services specified in Exhibits "A" and "B" unless the County, prior to Consultant performing the additional services, approves such additional services by means of a written amendment. It is specifically understood that oral requests and/or approvals of such additional services or additional compensation shall be barred and are unenforceable.

2.4. Method of Billing. Consultant may submit invoices to County's Project Manager for approval on a progress basis, but no more often than once each calendar month. Said invoice shall be based on the total of all Consultants' services that have been completed to County's sole satisfaction.



County shall pay Consultant's invoice within forty-five (45) days from the date County receives said invoice. Each invoice shall describe in detail, the services performed and the associated percentage of tasks completed. Any additional services approved and performed pursuant to this Agreement shall be designated as "Additional Services" and shall identify the number of the authorized change order, where applicable, on all invoices.

2.5. Records and Audits. Records of Consultant's services relating to this Agreement shall be maintained in accordance with generally recognized accounting principles and shall be made available to County or its Project Manager for inspection and/or audit at mutually convenient times for a period of five (5) years from the termination of this Agreement.

### **3.0 TIME OF PERFORMANCE**

3.1. Commencement and Completion of Work. The professional services to be performed pursuant to this Agreement shall commence within five (5) days after County delivers its Notice to Proceed. Said services shall be performed in strict compliance with the Project Schedule approved by County as set forth in Exhibit "C", attached hereto and incorporated herein by this reference. The Project Schedule may be amended by mutual agreement of the parties. Failure to commence work in a timely manner and/or diligently pursue work to completion may be grounds for termination of this Agreement.

3.2. Excusable Delays. Neither party shall be responsible for delays or lack of performance resulting from acts beyond the reasonable control of the party or parties. Such acts shall include, but not be limited to, acts of God, fire, strikes, material shortages, compliance with laws or regulations, riots, acts of war, or any other conditions beyond the reasonable control of a party.

### **4.0 TERM OF CONTRACT AND TERMINATION**

4.1. Term. This Agreement shall commence upon approval by the County's Board of Supervisors and continue until the work required herein is completed, unless previously terminated as provided herein or as otherwise agreed to in writing by the parties.

4.2. Notice of Termination. The County reserves and has the right and privilege of canceling, suspending or abandoning the execution of all or any part of the work contemplated by this Agreement, with or without cause, at any time, by providing written notice to Consultant. The termination of this Agreement shall be deemed effective upon receipt of the notice of termination. In the event of such termination, Consultant shall immediately stop rendering services under this Agreement unless directed otherwise by the County.

4.3. Compensation. In the event of termination, County shall pay Consultant for reasonable costs incurred and professional services satisfactorily performed up to and including the date of County's written notice of termination. Compensation for work in progress shall be prorated as to the percentage of work completed as of the effective date of termination in accordance with the fees set forth in Exhibit "B". In ascertaining the professional services actually rendered hereunder up to the effective date of termination of this Agreement, consideration shall be given to both completed work and work in progress, to complete and incomplete drawings, and to other documents pertaining to the services contemplated herein whether delivered to the County or in the possession of the Consultant.

4.4. Documents. In the event of termination of this Agreement, all documents prepared by Consultant in its performance of this Agreement including, but not limited to, finished or unfinished design, development and construction documents, data studies, drawings, maps and reports, shall be delivered to the County within ten (10) days of delivery of termination notice to Consultant, at no cost to County.

Any use of uncompleted documents without specific written authorization from Consultant shall be at County's sole risk and without liability or legal expense to Consultant.

## 5.0 INSURANCE REQUIREMENTS

5.1. Minimum Scope and Limits of Insurance. Consultant, at its sole cost and expense, for the full term of this Agreement (and any extensions thereof), shall obtain and maintain, at minimum, compliance with all of the following insurance coverage(s) and requirements. If Consultant normally carries insurance in an amount greater than the minimum amount listed below, that greater amount shall become the minimum required amount of insurance for purposes of this Agreement. The insurance listed below shall have a retroactive date of placement prior to, or coinciding with, the date services are first provided that are governed by the terms of this Agreement:

- (a) Comprehensive general liability, including premises-operations, products/completed operations, broad form property damage, blanket contractual liability, independent contractors, personal injury with a policy limit of not less than Five Million Dollars (\$5,000,000.00), combined single limits, per occurrence and aggregate. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to any act or omission by Consultant under this Agreement or the general aggregate limit shall be twice the required occurrence limit.
- (b) Automobile liability for owned vehicles, hired, and non-owned vehicles, with a policy limit of not less than One Million Dollars (\$1,000,000.00), combined single limits, per occurrence and aggregate.
- (c) Workers' compensation insurance as required by the State of California.
- (d) Professional errors and omissions ("E&O") liability insurance with policy limits of not less than Five Million Dollars (\$5,000,000.00), combined single limit for each occurrence. If Consultant cannot provide an occurrence policy, Consultant shall provide insurance covering claims made as a result of performance of Work on this Project and shall maintain such insurance in effect for not less than five years following Final Completion of the Project.

5.2. Endorsements. The Consultant shall obtain a specific endorsement to all required insurance policies, except Professional Liability insurance, naming the County of Stanislaus, its Officers, Directors, Officials, Agents, Employees and Volunteers as additional insureds for at least three years after the completion of the work to be performed under this Agreement, but, to the extent that any insurance issued to Consultant in effect after the expiration of three years provides additional insured coverage to parties Consultant agreed in writing to name as an additional insured, then Consultant shall have the obligation under this contract to obtain such additional insured coverage for the County, under any and all policies Consultant has regarding:

- (a) Liability arising from or in connection with the performance or omission to perform any term or condition of this Agreement by or on behalf of the Consultant, including the insured's general supervision of its subcontractors;
- (b) Ongoing services, products and completed operations of the Consultant;
- (c) Premises owned, occupied or used by the Consultant; and
- (d) Automobiles owned, leased, hired or borrowed by the Consultant.
- (e) For Workers' Compensation insurance, the insurance carrier shall agree to waive all rights of subrogation against the County, its officers, officials and employees for losses arising from the performance of or the omission to perform any term or condition of this Agreement by the Consultant.

5.3. Deductibles: Any deductibles, self-insured retentions or named insureds must be declared in writing and approved by County. At the option of the County, either: (a) the insurer shall reduce or eliminate such deductibles, self-insured retentions or named insureds, or (b) the Consultant

shall provide a bond, cash, letter of credit, guaranty or other security satisfactory to the County guaranteeing payment of the self-insured retention or deductible and payment of any and all costs, losses, related investigations, claim administration and defense expenses. The County, in its sole discretion, may waive the requirement to reduce or eliminate deductibles or self-insured retentions, in which case, the Consultant agrees that it will be responsible for and pay any self-insured retention or deductible and will pay any and all costs, losses, related investigations, claim administration and defense expenses related to or arising out of the Consultant's defense and indemnification obligations as set forth in this Agreement.

5.4. Certificates of Insurance: At least ten (10) days prior to the date the Consultant begins performance of its obligations under this Agreement, Consultant shall furnish County with certificates of insurance, and with original endorsements, showing coverage required by this Agreement, including, without limitation, those that verify coverage for subcontractors of the Consultant. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements shall be received and, in County's sole and absolute discretion, approved by County. County reserves the right to require complete copies of all required insurance policies and endorsements, at any time.

5.5. Non-limiting: Nothing in this Section or the insurance described herein shall be construed as limiting in any way, the indemnification provisions contained in this Agreement, or the liability of Consultant and Consultant's officers, employees, agents, representatives or subcontractors for payments of damages to persons or property.

5.6. Primary Insurance: The Consultant's insurance coverage shall be primary insurance regarding the County of Stanislaus, its Officers, Directors, Officials, Agents, Employees and Volunteers. Any insurance or self-insurance maintained by the County of Stanislaus, its Officers, Directors, Officials, Agents, Employees and Volunteers shall be excess of the Consultant's insurance and shall not contribute with Consultant's insurance. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the County or its officers, officials and employees. The Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability. Any and all insurances cared by it shall be deemed liability coverage for any and all actions it performs in connection with this Contract.

5.7. Cancellation of Insurance: Each insurance policy required by this section shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party except after thirty (30) days prior written notice has been given to County. The Consultant shall promptly notify, or cause the insurance carrier to promptly notify, the County of any change in the insurance policy or policies required under this Agreement, including, without limitation, any reduction in coverage or in limits of the required policy or policies. Consultant shall maintain such coverage in effect for five years after substantial completion of the project to the extent it is commercially available at reasonable rates.

5.8. California Admitted Insurer: Insurance shall be placed with California admitted insurers (licensed to do business in California) with a current rating by Best's Key Rating Guide of no less than A-:VII; provided, however, that if no California admitted insurance company provides the required insurance, it is acceptable to provide the required insurance through a United States domiciled carrier that meets the required Best's rating and that is listed on the current List of Eligible Surplus Line Insurers maintained by the California Department of Insurance.

5.9. Subcontractors: Consultant shall require that all of its subcontractors are subject to the insurance and indemnity requirements stated herein, or shall include all subcontractors as additional insureds under its insurance policies.

## 6.0 INDEMNIFICATION

6.1. Indemnification: To the fullest extent allowed by law, Consultant shall defend, indemnify, and hold harmless the County and its officers, directors, officials, agents, employees, volunteers and representatives (collectively, "Indemnitee") from and against any and all claims, suits, actions, losses, injuries, damages or expenses of every name, kind, and description, including litigation costs and reasonable attorney's fees incurred, (collectively, "losses") which are founded upon, arise out of, pertain to, or relate to, directly or indirectly, in whole or in part, the alleged negligence, recklessness, or willful misconduct of Consultant, its officers, agents, employees, volunteers, representatives, contractors and subcontractors, excluding, however, such liabilities caused in part by the sole negligence, active negligence or willful misconduct of the County, its agents, employees, and representatives. These indemnification obligations shall not be limited by any assertion or finding that (1) the person or entity indemnified is liable by reason of non-delegable duty, or (2) the losses were caused in part by the negligence of, breach of contract by, or violation of law by Indemnitee. Nothing in this Agreement, including the provisions of this paragraph, shall constitute a waiver or limitation of any rights which Indemnitee may have under applicable law, including without limitation, the right to implied indemnity.

6.2. Duty to Defend: The duty of Consultant to indemnify and save harmless as set forth herein, shall include both the duty to indemnify and at Consultant's own cost and expense the duty to defend as set forth in Section 2778 of the California Civil Code and as limited in section 2782.8 of the California Civil Code. This duty to defend arises immediately when such claim is made and shall be independent of any finding of negligence and shall arise regardless of any claim or assertion that Indemnitee caused or contributed to the Losses. Consultant shall provide legal counsel acceptable to the County.

6.3. Duty to Cooperate: Each party shall notify the other party within ten (10) days in writing of any claim or damage related to activities performed under this Agreement. The parties shall cooperate with each other in the investigation and disposition of any claim arising out of the activities under this Agreement. Specifically, Consultant shall take all steps necessary to assist the County in the defense of any claim brought by a contractor hired to construct the Project regarding any errors, flaws, and/or omissions in the plans or specifications of the Project.

6.4. Patent Rights: Consultant represents that professional services provided by Consultant pursuant to this Agreement does not infringe on any other copyrighted work. Consultant shall defend, indemnify and hold harmless the County from all loss, cost, damage, expense, liability or claims, including attorneys' fees, court costs, litigation expenses and expert consultant or witness fees, that may at any time arise for any infringement of the patent rights, copyright, trade secret, trade name, trademark, service mark or any other proprietary right of any person or persons in consequence of the use by the County of any articles or services supplied under this agreement.

6.5. The foregoing provisions shall survive the term and termination of this Agreement.

## 7.0 GENERAL PROVISIONS

7.1. Entire Agreement: This Agreement constitutes the entire Agreement between the parties with respect to any matter referenced herein and supersedes any and all other prior writings and oral negotiations. This Agreement may be modified only in writing, and signed by the parties in interest at the time of such modification. The terms of this Agreement shall prevail over any inconsistent provision in any other contract document appurtenant hereto, including exhibits to this Agreement.

7.2. Representatives. The Director of the Stanislaus County Department of Environmental Services, or designee, shall be the representative of County for purposes of this Agreement and may issue all consents, approvals, directives and agreements on behalf of the County, called for by this Agreement, except as otherwise expressly provided in this Agreement. Consultant shall designate a representative for purposes of this Agreement who shall be authorized to issue all consents, approvals, directives and agreements on behalf of Consultant called for by this Agreement, except as otherwise expressly provided in this Agreement.

7.3. Project Managers. County shall designate a Project Manager to work directly with Consultant in the performance of this Agreement. Consultant shall designate a Project Manager who shall represent it and be its agent in all consultations with County during the term of this Agreement. Consultant or its Project Manager shall attend and assist in all coordination meetings called by County.

7.4. Designated Personnel: A material covenant of this agreement is that the Consultant shall assign the individuals designated below to perform the functions designated so long as they continue in the employ of the Consultant. The designated individuals shall, so long as their performance continues to be acceptable to County, remain in charge of the services for the Project from beginning through completion of services.

- a. Project Manager: Caleb Moore, P.E.

7.5. Removal of Personnel or Sub-Consultants: If the County, in its sole discretion at any time during the term of this agreement, desires the removal of any person or sub-consultant assigned by Consultant to perform services, then the Consultant shall remove such person or consultant immediately upon receiving notice from the County.

7.6. Notices: Any notices, documents, correspondence or other communications concerning this Agreement or the work hereunder may be provided by personal delivery, facsimile or mail and shall be addressed as set forth below. Such communication shall be deemed served or delivered: a) at the time of delivery if such communication is sent by personal delivery; b) at the time of transmission if such communication is sent by facsimile; and c) 48 hours after deposit in the U.S. Mail as reflected by the official U.S. postmark if such communication is sent through regular United States mail.

**If to County:**  
Stanislaus County  
Department of Environmental Resources  
Attn: Stephanie Musso  
3800 Cornucopia Way, Suite C  
Modesto, California 95358  
(209) 525-6786  
Fax: (209) 525-6773  
E-mail: smusso@envres.org

**If to Consultant:**  
Tetra Tech BAS  
Attn: Caleb Moore  
1360 Valley Vista Drive  
Diamond Bar, CA 91765  
(909) 860-7777 x256  
Fax: (909) 396-9777  
E-mail: caleb.moore@tetratech.com

7.7. Attorneys' Fees: In the event that litigation is brought by any party in connection with this Agreement, the prevailing party shall be entitled to recover from the opposing party all costs and expenses, including reasonable attorneys' fees, incurred by the prevailing party in the exercise of any of its rights or remedies hereunder or the enforcement of any of the terms, conditions, or provisions hereof.

7.8. Governing Law: This Agreement shall be governed by and construed under the laws of the State of California without giving effect to that body of laws pertaining to conflict of laws. In the event of any legal action to enforce or interpret this Agreement, the parties hereto agree that the sole and exclusive venue shall be a court of competent jurisdiction located in Stanislaus County, California.

7.9. Assignment: Consultant shall not voluntarily or by operation of law assign, transfer, sublet or encumber all or any part of Consultant's interest in this Agreement without County's prior written

consent. Any attempted assignment, transfer, subletting or encumbrance shall be void and shall constitute a breach of this Agreement and cause for termination of this Agreement. Regardless of County's consent, no subletting or assignment shall release Consultant of Consultant's obligation to perform all other obligations to be performed by Consultant hereunder for the term of this Agreement.

7.10. Independent Contractor: Consultant is and shall be acting at all times as an independent contractor and not as an employee of County. Consultant shall secure, at his expense, and be responsible for any and all payment of Income Tax, Social Security, State Disability Insurance Compensation, Unemployment Compensation, and other payroll deductions for Consultant and its officers, agents, and employees, and all business licenses, if any are required, in connection with the services to be performed hereunder. Consultant hereby indemnifies and holds County harmless from any and all claims that may be made against County based upon any contention by any third party that an employer-employee relationship exists by reason of this Agreement.

7.11. Confidentiality: The Consultant agrees to keep confidential all information obtained or learned during the course of furnishing services under this Agreement and to not disclose or reveal such information for any purpose not directly connected with the matter for which services are provided.

7.12. Ownership of Documents: Any interest, including copyright interests, of Consultant or its contractors or subconsultants in studies, reports, memoranda, computational sheets, drawings, plans or any other documents, including electronic data, prepared in connection with the Services, shall be the property of County. To the extent permitted by law, work product produced under this Agreement shall be deemed works for hire and all copyrights in such works shall be the property of the County. In the event that it is ever determined that any works created by Consultant or its subconsultants under this Agreement are not works for hire, Consultant hereby assigns to County all copyrights to such works. With the County's prior written approval, Consultant may retain and use copies of such works for reference and as documentation of experience and capabilities.

7.13. Reuse of Design Documents: Should the County desire to reuse the documents specified above and not use the services of the Consultant, then the County agrees to require the new consultant to assume any and all obligations for the reuse of the documents, and the County releases Consultant and its subconsultants from all liability associated with the reuse of such documents.

7.14. Public Records Act Disclosure: Consultant has been advised and is aware that all reports, documents, information and data including, but not limited to, computer tapes, discs or files furnished or prepared by Consultant, or any of its subcontractors, and provided to County may be subject to public disclosure as required by the California Public Records Act (California Government Code Section 6250 et. seq.). Exceptions to public disclosure may be those documents or information that qualifies as trade secrets, as that term is defined in the California Government Code Section 6254.7, and of which Consultant informs County of such trade secret. The County will endeavor to maintain as confidential all information obtained by it that is designated as a trade secret. The County shall not, in any way, be liable or responsible for the disclosure of any trade secret including, without limitation, those records so marked if disclosure is deemed to be required by law or by order of the Court.

7.15. Responsibility for Errors: Consultant shall be responsible for its work and results under this Agreement. Consultant, when requested, shall furnish clarification and/or explanation as may be required by the County's representative, regarding any services rendered under this Agreement at no additional cost to County. In the event that an error or omission attributable to Consultant occurs, then Consultant shall, at no cost to County, provide all necessary design drawings, estimates and other Consultant professional services necessary to rectify and correct the matter to the sole satisfaction of County and to participate in any meeting required with regard to the correction.

7.16. Order of Precedence: In the event of an inconsistency in this Agreement and any of the attached Exhibits, the terms set forth in this Agreement shall prevail. If, and to the extent this Agreement incorporates by reference any provision of the RFP or the Response, such provision shall be deemed a

part of this Agreement. Nevertheless, if there is any conflict among the terms and conditions of this Agreement and those of any such provision or provisions so incorporated by reference, this Agreement shall govern over both the Response and the RFP and the Response shall govern over the RFP.

7.17. Costs: Each party shall bear its own costs and fees incurred in the preparation and negotiation of this Agreement and in the performance of its obligations hereunder except as expressly provided herein.

7.18. No Third Party Beneficiary Rights: This Agreement is entered into for the sole benefit of County and Consultant and no other parties are intended to be direct or incidental beneficiaries of this Agreement and no third party shall have any right in, under or to this Agreement.

7.19. Construction: The parties have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises with respect to this Agreement, this Agreement shall be construed as if drafted jointly by the parties and in accordance with its fair meaning. There shall be no presumption or burden of proof favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Agreement.

7.20. Amendments: This Agreement may be amend only by a writing executed by the parties hereto or their respective successors and assigns.

7.21. Waiver: The delay or failure of either party at any time to require performance or compliance by the other of any of its obligations or agreements shall in no way be deemed a waiver of those rights to require such performance or compliance. No waiver of any provision of this Agreement shall be effective unless in writing and signed by a duly authorized representative of the party against whom enforcement of a waiver is sought. The waiver of any right or remedy in respect to any occurrence or event shall not be deemed a waiver of any right or remedy in respect to any other occurrence or event, nor shall any waiver constitute a continuing waiver.

7.22. Severability: If any provision of this Agreement is determined by a court of competent jurisdiction to be unenforceable in any circumstance, such determination shall not affect the validity or enforceability of the remaining terms and provisions hereof or of the offending provision in any other circumstance. Notwithstanding the foregoing, if the value of this Agreement, based upon the substantial benefit of the bargain for any party is materially impaired, which determination as made by the presiding court or arbitrator of competent jurisdiction shall be binding, then both parties agree to substitute such provision(s) through good faith negotiations.

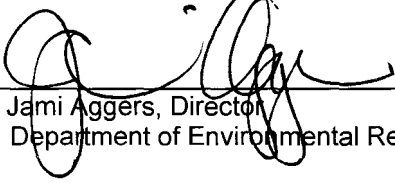
7.23. Counterparts: This Agreement may be executed in one or more counterparts, each of which shall be deemed an original. All counterparts shall be construed together and shall constitute one agreement.

7.24. Corporate Authority: The persons executing this Agreement on behalf of the parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said parties and that by doing so, the parties hereto are formally bound to the provisions of this Agreement.

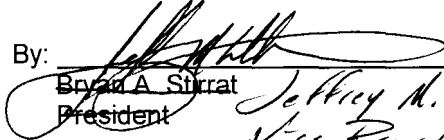
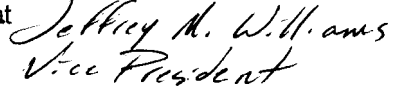
**IN WITNESS WHEREOF**, the parties hereto have caused this Agreement to be executed by and through their respective authorized officers:

[Signatures appear on Next Page]


**COUNTY OF STANISLAUS**

By:   
\_\_\_\_\_  
Jami Aggers, Director  
Department of Environmental Resources  
"County"

**TETRA TECH BAS, INC.**

By:   
\_\_\_\_\_  
Bryan A. Strrat  
President  
  
Jeffrey M. Williams  
Vice President  
"Consultant"

APPROVED AS TO FORM:  
John P. Doering, County Counsel

By:   
\_\_\_\_\_  
Amanda DeHart, Deputy County Counsel



**EXHIBIT A  
SCOPE OF WORK**

**A. BACKGROUND**

The Fink Road Landfill site is located in western Stanislaus County, approximately 20 miles southwest of the City of Modesto. The site is 3.5 miles west of Crows Landing, near the intersection of Fink Road and Interstate 5. The 219-acre site is owned and operated by Stanislaus County. The facility has been active since 1973 and operates under Waste Discharge Requirements (WDR) No. R5-2008-0144, issued by the California Regional Water Quality Control Board, Central Valley Region (RWQCB).

The Fink Road Landfill Facility Consists of Five (5) Waste Management Units:

1. LF-1: A closed 18.3-Acre Class III Municipal Solid Waste Landfill;
2. LF-2: An active 92.3-Acre Class III Municipal Solid Waste Landfill;\*
3. LF-3: An active 37-Acre Class II Ash Monofill; with six (6) cells;
4. SI-1: An approximate 1 - Acre Class II Surface Impoundment for storage of liquids from the leachate collection and removal system (LCRS) of LF-3; and
5. SI-2: A 1.4-Acre Class II surface impoundment for storage of leachate from the (LCRS) of LF-2.

\*Note: Municipal solid waste filling is currently occurring in Waste Management Unit LF-2, Cell Number 5.

A Waste-to-Energy (WTE) cogeneration facility, operated by Covanta of Stanislaus, Incorporated, occupies a 16.5-acre area at the south west corner of the site. The WTE Facility operates under a different permit, and is therefore; not considered a part of the solid waste facility.

**B. SCOPE OF SERVICES**

Consultant shall provide all the labor, qualified personnel, materials and equipment to perform the services in this Scope of Work.

**1. Scope Overview**

- 1.1 Consultant shall provide engineering design services and preparation of 100% contract construction documents consisting of a PS&E package for the construction of Class III Waste Management Units (municipal solid waste) LF- 2 Cell 6 and Cell 7, landfill base liners and leachate collection systems at the Fink Road Landfill. Consultant shall include all of the ancillary components, preparation of a CQA plan, and bid support by assisting the County with some aspects of the bidding process. The design and preparation of 100% contract construction documents shall include all tasks necessary for development and design, including documents necessary for the County to include in the bid documents. All aspects of design shall be prepared for two separate cells so that Cell 6 and Cell 7 can be bid and constructed separately or readily combined into one bid.

**1.2 Professional Services**

The professional services to be provided by Consultant shall include but not be limited to:

- 1.2.1 Project Management: This shall include execution of the contract scope through tracking of budgets, regular status reports to the County, quality control, technical reviews, resource allocation, schedule tracking and reporting, attendance at

meetings, bid support, making presentations to the County and regulatory agencies and providing general coordination between the County, state and local agencies, and Consultant's project team.

- 1.2.2 Civil Engineering: This shall include Geotechnical services and Engineering and Design services, including but not limited to: work required for preparation of construction bid documents, subsurface field investigation and materials testing, design calculations for stability, topographic field survey, LCRS sizing, engineer's estimate, plan preparation, technical specifications, CQA plan, and leachate compatibility testing.
- 1.2.3 Electrical Engineering: This shall include electrical design of the LCRS pump control panel and requisite electrical service.
- 1.2.4 Regulatory Document Preparation: This shall include design report preparation, which shall be submitted to the regulatory agencies by the Consultant. The Final Design Report shall include a short narrative of the project and summarize the findings of the geotechnical investigation and engineering design work that has been completed. This shall include all relevant backup calculations, construction plans, technical specifications, and CQA plan.
- 1.2.5 Permit Identification and Acquisition: This service shall include securing the construction permit for the Cell 6 and 7 liner expansion from the RWQCB through response to comments, negotiations, and meetings with the RWQCB.
- 1.2.6 Respond to Supplemental Comments and Concerns from the RWQCB about the Liner Performance Evaluation: Consultant shall access, assess and respond to supplemental areas of concern raised by the staff of the RWQCB after review of the Liner Performance Demonstration Reports for Cell 6 and 7.
  - a. Pursuant to the approved WDR Order No. R5-2008-0144, the RWQCB has already approved the composite liner components for all new LF 2 cells and has offered minimum requirements for design and construction. Consultant anticipates that responding to additional or supplemental comments on the liner demonstration shall be minimal in nature.

### 1.3 Services Not Included

- 1.3.1 Construction management, construction oversight, and CQA Management services necessary during the Construction Phase of the Class III Waste Management Unit (municipal solid waste) Landfill 2 Cell 6 and Cell 7 landfill base liners and leachate collection systems at the Fink Road Landfill, are not included in this RFP and shall be bid separately.
- 1.3.2 Air Quality Management Permit: It is Consultant's understanding that the current air quality permit covers waste placement in the full liner development of the site as outlined in the JTD, Therefore and if this understanding is correct, a permit modification will not need to be obtained. It is also Consultant's understanding that the USEPA has planned new rules that may affect the landfill air quality permits. It is unclear, however, what those rules may be and when they may take effect, Therefore, it may be impossible to anticipate what will be needed for compliance to the new regulations.

### 1.4 Project Requirements and Standards

- 1.4.1 The Consultant shall include all of the labor, supervision, and materials necessary to perform technical services, professional engineering design services, bid support, preparation of the CQA Plan, preparation of the PS&E package, and related work necessary to conceptualize, design, and permit the construction of two (2) Class III Waste Management Units (municipal solid waste) Landfill 2 Cell 6 and Cell 7 base liners and leachate collection systems for LF-2, Waste Management Unit, including its ancillary components. Consultant shall make every effort to complete the Final Design, as identified in this scope of work, and submit the Final Design to the RWQCB no later than six (6) months from the start date of the project. Consultant shall prepare and submit an application to CalRecycle for a revised/modified Solid Waste Facility Permit (if required) to obtain the new LF-2 Cell 6 and Cell 7 permitted cell limits, boundaries and specifications no later than one month after the RWQCB's approval of the Final Design.
- 1.4.2 The Consultant shall work closely with the County and other affected agencies involved in the Project.
- 1.4.3 All project work shall be prepared in accordance with the requirements of the County, RWQCB, San Joaquin Valley Unified Air Pollution Control District, California Department of Resources Recycling and Recovery (CalRecycle), the State of California Department of Industrial Relations (DIR), the State of California Public Contract Code for public works of improvement, and other applicable federal, state and local agencies.
- 1.4.4 All work products shall be the property of the County.
- 1.4.5 Quality Control: The Consultant shall be solely responsible for the accuracy and completeness of all data contained in memoranda, working papers, reports, plans and drawings. The County or designated representative will exercise review and approval functions at key points and milestones during the Project and shall review the Consultants' project status reports and conduct meetings with the Consultant.

The Consultant shall implement and maintain quality control procedures during the preparation of memoranda, working papers, reports, plans and drawings for the Project. The quality control procedures shall be in effect during the entire time work is being performed for the Project. The quality control procedures shall establish a process whereby any calculations are independently checked, plans are checked and corrected, and all Project related memoranda, working papers, and reports are routed and received by the affected persons and then bound in appropriate files. All work products submitted to the County for review are required to be marked clearly as fully checked and that the preparation of the material followed the established quality control procedures.

Consultant shall follow formal procedures to ensure that the highest quality work products and services are delivered to the County at all times. Consultant shall follow established quality assurance protocols to ensure that a culture of quality control within the project team is instilled from the start of the project. Consultant shall accomplish this through a good consultant-to-County Project Manager rapport, establishment of a clearly defined scope of work at the start of the project, and consistent informal updates as the project is progressing.

Consultant has recently revised the comprehensive Quality Assurance Plan (QAP) for controlling and ensuring the quality of its products and services. The

plan is based on ANSI/ISO/ASQC Q9001-1994: Quality Systems-Model for Quality Assurance in Design, Development, Production, Installation, and Servicing (ASQC Quality Press, Wisconsin, 1994). It is also based on the quality system standard developed by ANSI and ASQC, Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs (ANSI/ASQC E4-1994, ASQC Quality Press, Milwaukee, WI, 1994) and was prepared according to the guidance contained in the United States Environmental Protection Agency (EPA) Requirements for Quality Management Plans, EPA QA/R-2 (EPA/240/B-01/002, EPA, Office of Environmental Information, Washington, DC, March 2001), which are based on the ANSI/ASQC standard.

Version Control Procedures: Consultant's Quality Control Plan outlines protocols for design document and report preparation, revision, naming, and filing. All drawings shall feature an approved title box showing the job number, Project Engineer ("designed by"), the drafter ("drawn by"), version number, and revision date. This information shall also be included as metadata to the drawing file. Drawings shall be dated, sealed, and signed in accordance with the County's requirements. Individual drawings shall be logged into a master drawing database for version number, file storage, and access control.

1.5 Design Criteria

Design criteria for two (2) Class III Waste Management Units (municipal solid waste) LF-2 Cell 6 and Cell 7 shall include:

- 1.5.1 Design Class III Waste Management Units (municipal solid waste) LF-2, Cell 6 and Cell 7 base liners and leachate collection systems, plan development, permitting, topo, surveying, soil testing, drawings, specifications, engineer's estimate, liner material analysis, leachate collection system design, ground water monitoring impacts, construction documents, fill schedule, bid documentation, preparation of a CQA plan, identifying the estimated number of work days construction will be required and identifying the size of the cells. All aspects of the design shall be prepared for two separate cells so that Cell 6 and Cell 7 can be bid and constructed separately, or readily combined into one bid.
- 1.5.2 Review of the County's existing Solid Waste Facility Permit and, if necessary, preparation, review, and submittal of a revised/modified Solid Waste Facility Permit to obtain the new LF-2 Cell 6 and Cell 7 permitted cell limits, boundaries and specifications.
- 1.5.3 Review of the County's current WDR regulations and making contact with appropriate regulatory agencies to confirm requirements and restrictions for design of Class III Waste Management Units (municipal solid waste) LF-2, Cell 6 and Cell 7 base liner systems and leachate collection systems.
- 1.5.4 Review of the WDR for discharge restrictions and effluent limits.
- 1.5.5 Survey of current topography of Class III Waste Management Units (municipal solid waste) LF-2 Cell 6 and Cell 7 footprint to confirm existing contours, boundaries and elevations. Consultant shall plan to provide a current topographical survey for the County; however, in the event the County Landfill representative has a recent topographical survey available, the County shall provide that topographical survey to the Consultant.

- 1.5.6 Evaluation of on-site materials for suitability use in construction of two (2) Class III Waste Management Units (municipal solid waste) LF-2 Cell 6 and Cell 7 landfill base liners and leachate collection systems including soil borings.
- 1.5.7 No additional environmental studies are required to design and construct the two (2) Class III Waste Management Units (municipal solid waste) LF-2 Cell 6 and Cell 7. This work was covered in the EIR adopted April 1985.
  - a. Additional environmental studies for new projects completed since April 1985, that will be made available upon request, include:
    - 1.5.7.1. Negative Declaration, State Clearing House number 2006052033 adopted May 2006; and
    - 1.5.7.2. Mitigated Negative Declaration, State Clearing House number 2009092057 adopted February 2010.
- 1.5.8 Technical advice and consulting to the County in matters arising out of or during the performance of the Work.
- 1.5.9 Scheduling and Coordination of meetings.
- 1.5.10 Liner performance demonstrations. (Consultant shall identify how many separate base liner demonstrations will be performed based on the RWQCB requirements). Two leak location surveys per cell for LF-2 Cell 6 and Cell 7, both before and after operation layer placement, down to no more than ¼" sensitivity, shall be included in the specifications.
- 1.5.11 Design of two (2) Class III Waste Management Units (municipal solid waste) LF-2 Cell 6 and Cell 7 base liner systems. The base liners must comply with all federal, state, and local laws, ordinances, rules and regulations. Base liner system design shall include design of all components of the landfill base liner systems.
- 1.5.12 Design of leachate collection systems for Cell 6 and Cell 7. Leachate collection systems shall comply with all federal, state, and local laws, ordinances, rules and regulations. Leachate collection systems shall have a design capacity sufficient to handle leachate volumes generated by precipitation before, during, and after landfill cell construction. Leachate collection system design shall include all components of the leachate collection system necessary for proper collection, transport and disposal of leachate.
- 1.5.13 Design shall include all maps, surveys, 100% contract documents consisting of plans, drawings, specifications, quantities, cell size, the number of estimated work days to complete the project, cost estimates and documents necessary for construction and permitting of the project.
- 1.5.14 Additionally, the Consultant, at their own expense, shall be available to review and revise the design documents, if required, due to discrepancies which resulted from negligence of the design plans.
- 1.5.15 Design Work shall include, but not be limited to, Engineering Studies, Geotechnical Evaluations, Laboratory Testing, Current Topography Site Surveying, Drainage Analysis, Static and Seismic slope Stability Analyses, Site Response Analysis, Evaluation of Liquefaction Potential and Settlement, Leachate Collection and Removal system (LCRS), surveying before excavation,

the volume of on-site soil excavation required, preparation of miscellaneous calculations, a Liner Report of Waste Discharge (ROWD) and requirements in the construction documents for the construction contractor to prepare and submit a Dust Control Plan, and perform on-site earthwork excavation (including stripping) for both Cell 6 and Cell 7.

- 1.5.16 During the design of the project the County shall conduct a 60% design review, a 90% design review and a final review for both Cell 6 and Cell 7. The 60% design review shall have information on the proposed liner materials, and the proposed layout of the leachate collection systems to transport leachate to Surface Impoundment (SI)-2. The 60% design review shall include draft versions of all sheets to be included in the design. The 90% design review shall include all aspects of the final design and shall be submitted to and reviewed by the County, the RWQCB and any other agency that might have a stake in the project. A final review shall be conducted on the design construction document the consultant feels is ready for bidding, that incorporates all of the County's and the RWQCB previous comments. The final review may be subject to an independent third party review. Consultant shall make any required changes. Contractor shall be responsible for all required submittals to the RWQCB and shall follow up with the regulatory agencies routinely to ensure that the design review is completed in a timely manner.
- 1.5.17 Written text-based products, such as reports, shall be in MS Word with header and footer as directed by the County to coordinate with other documents.
- 1.5.18 Timeline: An estimated timeline to complete permitting, construction bidding and construction. A finalized project schedule through completion of construction shall be approved by County. The project schedule shall be revised and resubmitted if the Consultant fails to meet the milestones as identified in the approved initial schedule. The cost for such revision shall be borne by the Consultant. The Consultant shall also revise the project schedule in case of delays for other reasons. The cost for such revisions shall be paid on a time and material basis by Task Order.
- 1.5.19 Conceptual Design – Consultant shall include a conceptual design approach and design presentation.
- 1.5.20 CQA Plan: Prepare Construction Quality Assurance (CQA) Observation Plan meeting the requirements of Title 27 CCR Section 20324 for Class III Waste Management Unit (municipal solid waste) LF-2 Cell 6 and Cell 7 base liner and leachate collection system(s) installation. The CQA Plan shall be acceptable to the staff of the RWQCB and the California Integrated Waste Board.
- 1.5.21 Plans: Plans shall be prepared to an appropriate engineering scale with standard units unless otherwise directed, showing information needed to bid and construct the project, signed by a licensed engineer, and approved and signed by all appropriate local jurisdictions. Prepare in AutoCAD Civil 3D 2013 or later. Consultant shall provide two separate sets of plans. One set of plans shall be submitted for Cell 6 and a separate set of plans shall be submitted for Cell 7 so that construction of the cells can be bid out separately, or readily combined into one bid.
  - a. Plan Submittal and Specifications: Plans, submittals, and specifications for both Cell 6 and Cell 7 must be provided in a digital format. Plans shall be prepared for two separate cells so that Cell 6 and Cell 7 can be bid and

constructed separately, or readily combined into one bid. The CAD files, including all topographical data, topographical surfaces, points, alignments, sites, corridors, and pipe networks must be prepared using AutoCAD Civil 3D 2013 format (or later).

- b. Specifications: Consultant shall prepare Special Provisions relevant to the Project that will be used by the County to advertise and construct the project. A Table of Contents shall be included for the Technical Specifications. Five (5) hard copies, one (1) electronic copy (PDF) emailed and one (1) electronic copy on a CD of Special Provisions shall be delivered to the County after 100% plans are ready and signed by the engineer for both Cell 6 and Cell 7. Specifications shall be prepared for two separate cells so that Cell 6 and Cell 7 can be bid and constructed separately, or readily combined into one bid.
- c. Estimate: Project estimate for Cell 6 and for Cell 7 shall be prepared by the Consultant using Caltrans standard bid item descriptions wherever possible. Five (5) hard copies, one (1) electronic copy on a CD and one (1) electronic copy by electronic mail in PDF format of final signed and stamped engineer's estimate for each Cell shall be delivered to the County after 100% plans are signed by the engineer. Consultant shall provide the County with the estimated cost of constructing Cells 6 and 7 together compared with the estimated cost of constructing Cells 6 and 7 separately, in order to determine if there are substantial cost savings in constructing the two cells simultaneously.
- d. Design Report: The Design Report shall present the basis of design for the two (2) Class III Waste Management Units (municipal solid waste) LF-2 Cell 6 and Cell 7 landfill base liners and leachate collection systems, drainage modifications, leachate collection piping and material specifications. Basic design assumptions, calculation supporting the sizing and design of the features must be included. Design Report shall be prepared for two separate cells so that Cell 6 and Cell 7 can be bid and constructed separately, or readily combined into one bid.
- e. Required Tasks: When determining the required tasks for this project, the Consultant shall follow all applicable RWQCB, CalRecycle and related work regulations. The Consultant must be knowledgeable and experienced in the substantive and procedural requirements for applicable environmental services and project permitting.
- f. Redesign Work: The Consultant shall, at their own expense, be obligated to perform all required redesign work to correct any negligent design errors or omissions discovered during bidding or construction that are directly attributable to the consultant at their own expense. Correction of design errors and omissions directly attributable to the Consultant shall be performed in a timely manner.

1.6 Assistance with Bid

The County shall prepare the formal bid solicitation documents for the construction of each of the landfill base liners and leachate collection systems, and Consultant shall review and provide comments on the final bid documents for both Cell 6 and Cell 7 before County issues the bid solicitation. Consultant shall be familiar with the State of California Public Contracting Code and California Code of Regulations to ensure design construction documents are in compliance with the code and reference the Public

Contracting Code and California Code of Regulations accordingly. All construction documents shall be prepared for two separate cells so that Cell 6 and Cell 7 can be bid and constructed separately, or readily combined into one bid.

## **2. Scope of Work – Tasks**

Consultant shall develop construction and permit documents, which shall be used to secure regulatory approval and solicit Public Works bids for LF-2 Cells 6 and 7 liner system installation. Each project task item and associated deliverables are outlined in this section. The major task items include:

- a. Project Management;
- b. Geotechnical Services;
- c. Engineering and Design;
- d. Design Report Preparation; and
- e. Regulatory Document Preparation and Response to Agency Comments.

### **2.1. Task 1 – Project Management**

Consultant's Project Manager shall work closely with the County's Project Manager in keeping the County apprised of project progress. Consultant's Project Manager shall interface with Consultant's technical team to meet the project schedule for deliverables, including quality control reviews. Written reports shall also be prepared on a monthly basis throughout the duration of the project to document the progress of work. In addition, project controls (such as periodic meetings or teleconferences) shall be utilized for each Work Plan task to facilitate frequent communication, as necessary, with County staff on the latest project schedule and progress.

- a. The scope of comprehensive project management includes, but is not limited to, project management, and efficiently managing schedules of any sub-consultants involved in the Project. Ultimately, the Consultant shall be responsible for completing all Project tasks in a timely fashion and to diligently follow the anticipated schedule set forth for this Project.
- b. The Consultant shall designate a Project Manager responsible for the overall and daily management of the design effort. The Project Manager shall be a registered civil engineer in the State of California. The Project Manager shall be dedicated to the overall contract management, including development of work orders, schedules, budgets, staffing, billing, and coordination of sub-consultants. The Project Manager may also be expected to make presentations concerning the project designs, schedules, and budgets to the County and other parties, both public and private.
- c. Consultant agrees that so long as the Project Manager is an active employee of the Consultant, the Project Manager shall be Project Manager for all work agreed to under this Agreement. If the Project Manager is removed by the Consultant while still an active employee of the Consultant without County's approval, the County shall assess as damages a penalty of \$10,000. The penalty assessed by County may be deducted from current billing due to the Consultant.
- d. However, notwithstanding the foregoing, the Project Manager is an at-will employee of the Consultant, and nothing in this paragraph shall cause or require the Consultant to be penalized in the event of termination of said at-will employment relationship. Consultant will be allowed to substitute the Project Manager or Construction quality Assurance Monitor without penalty, subject to



County's written approval and with the understanding that there will be a training period provided at no additional expense to County, upon a 30-day written notice to County. County reserves the right to interview any replacement for the Project Manager and to approve or reject that individual.

- e. Any individual above the Project Manager or not in the actual and direct performance of engineering work shall be considered in the overhead markup and shall not invoice their time against County projects.
- f. County reserves the right to have the Consultant remove and replace the Project Manager or any consultant or sub-consultant staff from the project for cause.
- g. Substitutions of key staff shall be made only with the approval of the County. Consultant shall notify the County in writing of any key staff changes and include the new staff member's resume which demonstrates why the new staff member is qualified to perform work on this Project.
- h. Project Work Effort: The Consultant shall perform services and provide staff adequate to meet the anticipated workload for the project.
- i. Expertise: The Consultant shall provide through their own staff or by the use of designated sub-consultants, expertise in all areas defined within the RFP, including specialty areas such as the Class III Waste Management Units (municipal solid waste) LF-2 Cell 6 and Cell 7 base liner and leachate collection system design. The Consultant shall utilize sub-consultants identified in their proposal with the expertise in all areas as defined in the RFP. On occasion, the Consultant may need to hire specialty sub-consultants not previously identified in their proposal. In either case, County reserves the right to approve the use of sub-consultant firms proposed for specialty work. Consultant shall notify the County in writing of any sub-consultants working on the Project that were not previously identified in their proposal and include the sub-consultant's resume which demonstrates why the sub-consultant is qualified to perform work on this project.
- j. The Consultant may provide staff with varying levels of expertise; however, work performed by subordinate staff members shall only be done under the direction of the designated responsible engineers, specified in the contract with the expertise in the required technical areas.
- k. Project Coordination: The Consultant shall coordinate and cooperate with County, local and State agencies, and public and franchise utility companies.

2.1.1. Project Progress Tracking and Reporting

Consultant shall prepare monthly letter-type progress reports to brief the County on the project progress. Monthly reports shall include the following:

- a. Narrative Text: One or two pages describing work accomplished during the period covered by the report and the summary of work progress to date in a brief, bulleted format by task. Problem and/or potential problem areas shall be identified and proposed resolutions shall be presented, as appropriate.
- b. Accounting Report: The progress of deliverables development, as a percent of completion during the reporting period, and task budget expended and remaining to date shall be documented in a monthly accounting report. The

level of effort budgeted and expended during the reporting period and to date shall be summarized, and any major variance/scope change shall be identified and described along with the effect of each on project cost and schedule. Actions taken to correct any budget variances or schedule slippage shall be discussed with the County.

- c. Schedule Updates: Updates to the schedule shall be provided with the monthly report, until project completion.
- d. Actual progress made through the date of the monthly report, including the percentage of work completed and estimated remaining duration for each activity in progress shall be reflected in monthly reports to the County.

2.1.2. Project Scheduling:

- a. The timely completion of the various tasks outlined in this Agreement shall be essential to assure the successful advancement of the Project and assure local program delivery and project development. At the beginning of the Project, the Consultant shall prepare a progress schedule clearly showing the various work tasks and the estimated time required for completion of each task. The schedule shall also show how the various tasks and activities relate to each other in terms of interdependence to allow determining a critical path. The progress schedule shall indicate major milestones, review stages, and other items critical to complete the Project.
- b. Consultant shall electronically set up each task and subtask in scheduling software agreed to by the County. Consultant shall use Microsoft Project Scheduling software as a platform on which to initiate and adapt the project schedule as necessary. The Critical Path Method (CPM) shall be used for planning, scheduling, and reporting the work to be performed. The CPM shall show the logical sequence of the work product development and shall identify any major restrictions. The CPM shall be integrated into MS Project, which can group major areas of work and tasks, identify predecessors and successors, and track the early and late starts of each activity with associated impacts on the overall schedule.
- c. Consultant shall update the Project Schedule throughout the course of the Project and shall show both the original schedule and the current actual schedule achieved so that relative progress may be compared to the original baseline schedule.
- d. Consultant shall review the progress schedule to identify any potential scheduling problems and shall take steps to maintain the Project Schedule if a delay is anticipated or occurs. The Project Schedule shall be immediately revised by the Consultant should one or more of the following conditions occur:
  - 2.1.2.1. A change or delay significantly affects any specified intermediate milestone date, completion date, or the sequence of activities.
  - 2.1.2.2. The County and/or Consultant elects to change any sequence of activities affecting the critical path or to significantly change the previously approved work plan.
  - 2.1.2.3. Any schedule updates shall be discussed with the County prior to changing the schedule.

2.1.2.4. The County shall expect the successful consultant to take active measures to place the work effort back on schedule if a delay is expected or occurs.

- e. Schedule: Consultant recognizes that the County desires to submit the final design to the agencies within six (6) months, or sooner, of award of contract and be in construction as soon as possible after permitting is complete. Although it will be up to the RWQCB and potentially CalRecycle to be timely and thorough with their review of the permit documents, Consultant shall enhance the permitting process by meeting with the RWQCB early in the design process to ascertain their schedule and determine the critical path milestones with the RWQCB. This shall involve them in the process and enlist them as a "teaming partner" rather than a "gatekeeper".

Consultant shall make every effort to meet the schedule with no surprises for the County or RWQCB. Consultant's staff have many years of experience with all facets of landfill designs. The initial investigation, field survey, engineering design, and permitting shall all be performed by Consultant's staff (no sub-consultants) who have many years of liner design and permitting experience as a team. Consultant shall make every effort to eliminate any time delays in the design process and potential design oversights that might need to be addressed during the regulatory review process. A detailed schedule is presented in Exhibit C, listing key milestones, deliverables, and outlining the critical path for the project.

#### 2.1.3. Cost Controls

Before the start of the project, a detailed scope of work shall be established where tasks and subtasks are identified, methods are evaluated, and a "per-task" budget is estimated. Consultant shall determine the method of work that minimizes project costs while ensuring a high-quality product. Consultant shall discuss all elements of the project's budget and work plan with the County before work begins. In this way, budget surprises, unforeseen costs, and unintentional delays can be avoided.

Time assignments shall be given to project staff by the Consultant's Project Manager. Time spent on the project shall be recorded electronically on an integrated time sheet application for each work day and shall be integrated into an automated tracking system. The Consultant's Project Manager shall be able to, at any time, obtain a detailed Project Progress Report that shows the amount of time spent per person, as well as the budget per-task, year-to-date, and project-to-date.

Expense sheets for professional services and expenses (from direct costs such as travel, equipment [purchase or rental], materials, and subcontractor services) shall be prepared and submitted weekly. Charges accruing to the project from these sheets shall be uploaded to our management information system.

##### a. Approach to Staying Within Project Budget

Consultant has a proven and fully operational management information and cost control system in place to support work for the County. This system is referred to as "Tetra Linx." Tetra Linx is Consultant's company-wide Enterprise Resource Planning (ERP) tool. Consultant shall use this Oracle-

based financial management and cost accounting system to manage this Agreement. Consultant shall use Tetra Linx to provide accurate and timely reports of current and forecasted costs at the program level, task order level, and task level, as identified by the work breakdown structure. Tetra Linx is designed to accommodate contracts with multiple assignments by using a job cost work breakdown structure, cost categories, and cost elements consistent with the engineering contract requirements and program needs. It is structured around a fully integrated database that supports general ledger, project accounting, project management, scheduling, accounts payable, and accounts receivable. Consultant's Project Manager shall use Tetra Linx's following specific capabilities throughout this project, as appropriate:

- i. Contract financial and project status reporting;
- ii. Tracking labor, ODCs, travel, and subcontractor costs on a real-time basis;
- iii. Schedules, estimates, and tracks committed labor costs;
- iv. Downloading into MS-compatible software formats;
- v. Providing a high level of adaptability through a flexible job numbering system;
- vi. Providing a variety of detailed and summary reports on a weekly and monthly basis ;
- vii. Tracking estimates of costs to complete versus funding limits;
- viii. Tracking purchase order and subcontractor committed costs plus incurred costs to identify projected cost;
- ix. Providing exceptions reports to flag budget variances; and
- x. Budget modification tracking, which shall be carried throughout all reports.

Consultant shall also maintain an integrated server network that contains all County project files and is accessible to all project team members. Consultant shall use their standard protocol for working draft spreadsheets, text documents, and CAD files of always having a file, path, and print date stamp to maintain version quality control. Consultant shall also maintain a digital file (PDF) network of original work so that copies of past work can be readily printed or sent digitally.

b. Approach to staying within design scope

At the outset of the project, Consultant shall meet with the County to establish a final scope of work for the design of Cells 6 and 7. During the execution of work, Consultant shall utilize automated tools to track the budget and scheduling status of individual tasks. Consultant shall provide the County with regular reports which document the status of work in relation to the original design scope. Consultant's Project Manager shall closely monitor work to identify any technical issues arising during investigatory work, the development of design concepts, and final design documents. Consultant shall proactively address any deviations from the established design scope, and take immediate action to address issues which may result in "scope creep."

c. Approach to limiting change orders

Consultant shall work with the County to develop a final project scope of work which clearly defines the work Consultant shall be responsible for, and which shall identify major and minor tasks, specific work products, project

deliverables, and the schedule and budget of individual project tasks. Consultant's Project Manager shall be responsible for monitoring Consultant's compliance with the project scope, and for taking steps to ensure that change orders to address in-scope items will not be needed. Consultant shall hold regular meetings and provide reports to inform the County of the status of individual project tasks. In addition, Consultant shall conduct constructability reviews of project designs to identify areas which could potentially lead to contractor change orders in the construction phase.

2.1.4. **Task 1.1: Project Meetings**

Ongoing communication between Consultant and County shall be critical to the success of the project. Project Meetings, conference calls, and electronic communication shall be an ongoing part of the project. Consultant shall coordinate, facilitate and attend a project kick-off meeting with County staff at the time of project initiation to establish the lines of communication and clearly define the goals of the County. A Conceptual Design meeting shall be held to formulate a potential conceptual design layout for the project. Regular follow-up monthly status meetings and/or conference calls shall also be utilized.

Consultant shall meet with the RWQCB in the beginning stage of the project to gather any new information that may be required in the design process, give an early indication to the RWQCB staff of what the design report will include and to gain a reasonable schedule commitment for review and approval of the Design Report. This meeting is best completed in person and at the site (possibly to coincide with a quarterly inspection).

The County shall designate specific points of contact, and alternates, who have decision-making authority and who can be reached in the event of an emergency.

Meetings requiring the Consultant and County's participation shall include:

- a. Kick-off Meeting;
- b. Conceptual Design Review;
- c. 60% Design Review;
- d. 90% Design Review; and
- e. Pre-bid conference (Consultant shall budget for two Pre-bid conference meetings: one for Construction of Cell 6 and one for the Construction of Cell 7).

Conference calls shall be utilized whenever possible in place of physical meetings.

The Project Manager, and/or appropriate consulting staff, shall be available to attend up to 8 meetings with the County or regulatory agencies to make presentations and confer on project progress. Conference calls may be utilized whenever possible in place of a physical meeting. It is anticipated Consultant shall attend up to six (6) meetings in-person and participate in up to two (2) conference calls.

2.1.5. **Task 1.2: Bid Support**

- a. The Consultant shall support the County staff during the project bidding and procurement process for both Cell 6 and Cell 7. Construction will be

performed for both Class III Waste Management Units (municipal solid waste) LF-2 Cell 6 and Cell 7. The Consultant shall attend the pre-bid conference, with the County and any contractors who are preparing to bid on the Project, for both construction projects. Background information regarding the leachate collection systems or any specific design issues shall be discussed at this meeting.

- b. Consultant shall review and obtain familiarity with the current State of California Public Contract Code, the RWQCB, WDR's and County formal bidding and contracting requirements for Construction of Public Works of Improvement, and provide services and work consistent with such Construction Terms and Conditions, so that work under the Construction Phase of the project will be carried out without undue hindrance or delay;
- c. Consultant shall be available to assist the County in responding to Requests for Information (RFI'S) specifically regarding the design during the advertisement phase for both construction projects. The County shall receive all inquiries and provide all responses to questions received during the bidding period, and shall issue addenda to the bid documents as necessary. Consultant shall be available to provide the County with written technical responses to the bidder's specific design questions for both construction projects. The Consultant shall expedite the preparation of immediate responses to questions and shall prepare design clarifications or revisions where time is of the essence, as determined and assigned by the County. The County shall include the Consultant responses to bidder specific design questions in the addenda that shall be distributed by the County to the bidders. The Consultant, if requested, shall assist the County to review prequalification submittals and assist County in evaluating the successful bidder's bid response.
- d. The Consultant shall not be in direct communication with bidders. The basis of bid for the construction contractors will be adjusted as needed by the County only.
- e. After bids for the construction of the two (2) Class III Waste Management Unit (municipal solid waste) landfill cells, base liners and leachate collection systems have been received by the County, the bid tabulations shall be prepared by the County. Upon request of the County, the Consultant shall assist County with the review of the approved lowest responsible and responsive bidder's bid response to provide comments to the County for potential clarifications on the bid, for each project. Should any additional follow up questions be required or responses require review, Consultant shall be available to assist at the County's disposal.
- f. Additionally, the Consultant shall be available to review and revise the design documents for both Cell 6 and Cell 7, if required, due to discrepancies which resulted from negligence of the design plans.

2.1.6. **Task 1.3. General Management**

Consultant's Project Manager shall coordinate and cooperate with County, local, and State Agencies, the public, and franchise utility companies. This coordination effort shall include correspondence relating to gathering project data, answering miscellaneous questions and providing updates on progress.

**2.2. Task 2 – Geotechnical Services**

Consultant shall update the existing landfill site data with limited geologic mapping and testing within the proposed Cells 6 and 7 to ascertain where suitable material is to be located for cell construction, and also perform stability analysis for the liner expansion areas.

**2.2.1. Task 2.1 Geologic Mapping**

Consultant shall perform geologic mapping to locate and describe any surface exposures of the prescribed soil materials required for construction of the base liner for Cell 6 and Cell 7. Previous geologic reports shall be reviewed prior to field sampling. The materials shall be tested to obtain compaction curves, soil classification and permeability of the low permeable soil.

Samples obtained from exploratory borings and from the existing waste mass shall be transported to a soils laboratory for additional visual description and testing. Based on a review of the exploratory work already performed, the final CQA reports and the exposures of the material, Consultant plans to perform shallow exploratory borings, using a hand auger. The locations of the borings shall be determined at the time of the field exploration based on the review and mapping of the site completed by Consultant's geologist. All cost associated with this work is already included in the existing budget for this task. Laboratory tests shall be performed on selected samples obtained from the borings to aid in classification and to evaluate the engineering properties of the various excavation soils. Laboratory tests shall include the following:

- a. In-situ moisture and density(D2937)
- b. Maximum density (D1557)
- c. Sieve and Hydrometer (D422)
- d. Atterberg Limits (D4318)
- e. Permeability - Flexible Wall (D5084)

The actual tests and their quantity shall be selected based on field and laboratory observations of the encountered materials.

Prevailing wage work at the site (i.e. using an auger, surveying, soil testing, flagging, etc.) as identified in Section D of the Scope of Work of this agreement, shall be performed in accordance with prevailing wage laws.

**2.2.2. Task 2.2 Slope Stability Analysis Update**

- a. Consultant shall provide a Slope Stability Analysis for Cell 6 and Cell 7. Title 27 of the California Code of Regulations (CCR) requires that Class III municipal solid waste landfills be evaluated for slope stability under static and seismic loading conditions. The regulations further require that a minimum Factor of Safety of 1.5 be achieved for both conditions. For temporary conditions, Consultant shall use a minimum Factor of Safety of 1.3 as the target analysis result. Per 27 CCR, in lieu of the stability analyses for seismic loading conditions, a more rigorous analytical method to estimate the magnitude of movement may be adopted to demonstrate that the landfill will remain functional following the design seismic event and will not experience excessive permanent seismically-induced displacements. If the seismic analysis determines that an elevated risk of movement is present, the more rigorous analysis of determining magnitude of movement shall be performed.

All cost associated with this work is already included in the existing budget for this task. Seismically-induced permanent displacements ( $\delta$ ) of no more than 6 inches are generally considered acceptable and within the current standards of practice for landfill design.

- b. 27 CCR requires that Class III municipal solid waste landfill performance be evaluated for seismic demand during the MPE, which is defined as the Maximum Probable Earthquake that appears capable of occurring under the presently known geologic framework. Consultant shall establish the seismic demand used for the design of the site based on historic, geologic, tectonic evaluations, and the associated peak ground accelerations shall be determined considering the new generation attenuation relationships (NGA), deterministic seismologic methods, and site specific material properties.
- c. Consultant shall perform slope stability analyses to develop fill sequencing consistent with the Recommended Procedures for Implementation of CGS Special Publication 117A Guidelines for Analyzing and Mitigating Landslide Hazards in California (CGS, 2008), which are considered the standard of practice and conceptually state-of-the-art for seismic slope analyses in California. Consultant shall evaluate both static and pseudo-static stability analyses to determine the yield acceleration using the computer program SLOPE/W (Geo-Slope Office, 2007), using Spencer's limit equilibrium method. If needed, and depending on the site geology, the seismic demand will be deconvoluted using equivalent-linear site response analysis code SHAKE2000 (GeoMotions LLC).
- d. To estimate seismically-induced permanent displacements during the design seismic event, Consultant shall use the method developed by Bray and Travararou (2007). This is a simplified Newmark (1965) method based on determination of displacements of a rigid block resting on an inclined sliding plane subjected to earthquake-type accelerations. The method is refined for solid waste landfills to incorporate the dynamic response characteristics of the waste fill and the intensity, frequency content, and duration of ground motions to yield results that are consistent with the observed performance of landfills during seismic events. Alternative methods, such as Rathje & Antonakos (2011), or detailed site specific final element modeling using Quake/W may also be considered, if needed.
- e. Liquefaction potential and possible settlement of native soils will also be addressed in this task.

**2.2.3. Task 2.3: Geotechnical Investigation Report**

Consultant shall prepare a geotechnical report for Cell and Cell 7 to summarize the physical data acquired during the study, to present the results of our geologic and geotechnical analyses, and to provide conclusions and recommendations to assist with the design of the proposed landfill expansion. It is anticipated that the following items will be addressed and presented in the geotechnical report:

- a. Evaluation of general subsurface conditions and description of types, distribution, and engineering characteristics of subsurface materials, including the boring logs and results of the laboratory testing.
- b. Performance of static and pseudo static slope stability analyses for permanent and temporary conditions.



- c. Recommendations for any expansion of the groundwater monitoring network shall be provided in this report.

2.2.4. **Task 2 Submittals:** Submittals for this task will be provided as part of Tasks 3.1 – 3.4. The full report shall be prepared using various computer programs and combined into one PDF and hard copy. This will serve as an appendix to the subsequent Design Report.

### 2.3. **Task 3 Engineering and Design Services**

Consultant shall complete the construction drawings for the proposed LF 2, Cells 6 and 7 liner system and permits in association with the County and in accordance with current regulatory requirements of the RWQCB. The engineering design shall commence with the preparation of a conceptual design then 60% complete design, 90% complete design and final construction documents. These designs shall be supported with technical specifications, a construction quality assurance (CQA) plan and an engineer's cost estimate for public works construction. Engineering and design services shall be performed for two separate cells so that Cell 6 and Cell 7 can be bid and constructed separately, or readily combined into one bid.

#### 2.3.1. **Task 3.1 Conceptual Design**

##### 2.3.1.1. **Preliminary Phase**

- a. Consultant shall Identify all necessary permits (i.e., water board, air district/board & waste board [CalRecycle] permits, etc.) anticipated to be needed and clearly explain the proposed permitting sequencing strategy for obtaining permits (i.e., the proposed order in which permit applications shall be permitted).
- b. Consultant shall prepare required permit applications in accordance with Task 5 – Permitting.
- c. Consultant shall identify all state, local and federal agencies that should be involved in this project.
- d. Consultant shall contact RWQCB for discussion of discharge limits and permitting required for the additional leachate collection recovery systems that is required at the base of the cells. Consultant shall determine the pretreatment facilities required to meet discharge and flow limits and develop a plan for dewatering of the cells prior to grading and construction.
- e. **Approach to Gathering Data:** As an initial task, Consultant shall meet with the County to identify any reports, permitting documents, or project related information in the County's possession that will have an impact on the project. Consultant shall maintain a digital library of project-related data within our project files. This shall include PDFs of applicable geotechnical reports, site investigation reports, as-builts of applicable site improvements, and copies of relevant permitting documents.
- f. **Approach to working with regulatory agencies:** Consultant shall provide liaison / negotiation services with the agencies involved in

overseeing the design and construction of the LF-2 Cell 6 and 7 project. Consultant shall work proactively with the regulators in order to identify and understand their expectations. Points of contact at the regulatory agencies shall be established to facilitate clear and consistent communication. The regulatory liaison assistance proposed as part of this project shall be in support of obtaining approval of compliance documents from the regulatory agencies. This includes coordination with the LEA, RWQCB, and CalRecycle, and participation in any public presentations with stakeholders involved in the permitting process.

2.3.1.2. Conceptual Design

Consultant shall start the conceptual design by reviewing all background data gathered from site investigation reports, previous design reports and site permits, including review of the RWQCB codified laws and administrative rules pertaining to landfill base liner and leachate collection system design and construction and review of the County's Waste Water Discharge Permit Number R5-2008-0144 issued by the RWQCB for discharge restrictions and effluent limits. These documents shall be reviewed to gather all pertinent information and data that will need to be considered in the design. The Conceptual design shall be prepared for two separate cells so that Cell 6 and Cell 7 can be bid and constructed separately, or readily combined into one bid. The data and information reviewed by Consultant shall be summarized in a technical memorandum and provided to the County for their review. This will provide the County with the opportunity to identify any possible data gaps and/or concur with the information pertinent to the design plan development. This task is expected to commence with the kick off meeting and be concluded within a week. Consultant shall be able to complete this task relatively quickly due the required due diligence to be performed in confirming our scope of work assumptions.

Consultant shall perform initial calculations and conceptual design tasks simultaneously with Task 2. This shall include:

- a. Aerial topography: The County shall provide Consultant with the most recent site aerial topography. Consultant shall review existing topographical survey and determine whether it shall be sufficient or whether County is in need of an updated topographical survey. If a survey is needed, Consultant shall self-perform both the field and aerial survey services as follows:
  - i. Consultant shall perform a topographical survey of LF-2 Cell 6 and Cell 7's footprint to determine existing contours, boundaries and elevations. The survey shall use North American Datum (NAD) 83 horizontal datum and National Geodetic Vertical Datum (NGVD) 29 vertical datum or newer, and shall provide all information required to develop plans for the LF-2 Cell 6 and Cell 7 base liners and leachate collection system's construction.
  - ii. The survey shall establish land ties and bench marks, locate property corners, and field locate all existing utilities. At least two control points at each end of the project shall be tied vertically and horizontally to the existing County monuments

utilizing the state plane coordinate system. Topographic survey and design layout shall utilize a local datum tied to at least one of the County's area monuments tied control points.

- b. Preliminary quantity take-offs and engineer's cost estimate: Consultant shall provide an engineer's cost estimate for Cell 6 and Cell 7 for the County's budgeting and procurement purposes. Consultant shall provide the County with the estimated cost of constructing Cells 6 and 7 together compared with the estimated cost of constructing Cells 6 and 7 separately, in order to determine if there are substantial cost savings in constructing the two cells simultaneously. Gross quantity take offs, specifically the requisite soil materials, shall be performed in order to assess the quantity of soil material that will be suitable to meet the RWQCB requirements for the liner system. Gross quantities shall be estimated based on the preliminary design, and gross costs from previous projects shall be applied to the gross quantity estimates. A contingency of 30% will be used in this process to help cover smaller costs and project uncertainties.
- c. Technical Specifications Outline: Consultant shall prepare an outline for the technical specifications as part of the conceptual design submittal for Cell 6 and Cell 7. The outline shall be prepared for two separate cells so that Cell 6 and Cell 7 can be bid and constructed separately, or readily combined into one bid. The outline shall include draft sections proposed for liner materials that have been approved in the WDRs. These materials will likely not change and can be readily specified. Other materials and process specifications shall be completed in subsequent tasks. See Task 3.5 to review the Work Plan for technical specifications. The specifications shall include design recommendations from the Geotechnical Investigation Report (Task 2). These recommendations shall include general/minimum means and methods to excavate and stockpile the different soil materials from onsite. Cross layer cutting will not be allowed.
- d. CQA Plan outline: Consultant shall present the CQA plan in draft outline format. The CQA plan shall be prepared for two separate cells so that Cell 6 and Cell 7 can be bid and constructed separately, or readily combined into one bid. Standard "boiler plate" items including work authority, communication lines and definitions will be updated for this project. See Task 3.6 for a complete description of CQA Plan methodology and content.
- e. LCRS Calculations: LCRS calculations for Cell 6 and Cell 7 shall be performed to satisfy the minimum performance standards outlined in CCR 27 and in the WDRs. Tetra Tech BAS will utilize the United States Environmental Protection Agency (USEPA) Hydrologic Evaluation Landfill Performance (HELP) modeling software. This is a conservative modeling software that is used to calculate unsaturated flow within landfills (impingement rate) and leachate head above a liner within the lateral collection layer. The system will be designed to contain twice (per 27 CCR) the peak daily impingement rate. The modeling will take into account fill height through the many stages of development. A preliminary

layout of the base liner and outfall piping system will be presented in this task.

- f. Surface Water Design Calculations and Erosion Control Design: Surface water calculations for Cell 6 and Cell 7 shall be limited to sizing of interim drainage features within the grading footprint. This will likely be done using the "CI" factor from a previous study to determine peak run-off volumes. These peak storm water volumes shall be used to design earthen swales that may be lined with turf reinforcement mats (or other erosion control materials).
- g. Future Vertical Expansion: When designing Cells 6 and 7, Consultant shall consider the future plans for vertical expansion of the landfill in the design. Consultant shall note any significant cost savings that may be realized should the Department choose not to consider vertical expansion in the design.
- h. Leachate Collection System: To the maximum extent possible, Consultant shall ensure all parts, materials, and equipment for the leachate collection system are interchangeable with the existing system. County anticipates that Cell 7 will require its own sump and transport system to the actual leachate pond. Consultant shall determine if Cell 7 can be tied into the existing system.
- i. Proposed Phasing: Consultant shall determine if Proposed Phasing Plans of the Cell 6 and 7 designs are applicable and necessary. Proposed Phasing Plans shall depict cell construction through on-site grading activities related to the construction and operation of the cells and leachate facilities, and information related to the long-term operation of the proposed Cells 6 and 7. Proposed Phasing plan drawings shall incorporate the following proposed site features:
  - i. Limits of grading for the proposed cells, facility infrastructure, borrow areas, and stockpile areas;
  - ii. Defined multi-year phases of construction and operational development, if applicable;
  - iii. Proposed landfill base grades prior to the construction of the waste containment liner system;
  - iv. Delineation of facility access roads, sedimentation basins, leachate pipelines and storage facilities, and other structures related to the facility operations;
  - v. General grades and flow directions for the drainage layer component of the leachate collection system;
  - vi. Size, location, and general grade for the leachate collection piping system, including pipelines to the on-site leachate ponds;
  - vii. Proposed transitional contours for each phase of development, including operational grades for existing phases and construction grading for the new phases and storm water drainage and collection features; and
  - viii. Proposed final contours of the landfill after construction of the final cover liner system.
- j. Recommendations Requested by County:

- i. Recommend landfill base liner design options;
  - ii. Recommendations for leachate collection;
  - iii. Recommendations are to include layout of piping, pumps, and other necessary equipment to transport Leachate to SI-2
  - iv. Cost comparison between designs;
  - v. Relevant advantages of the designs; and
  - vi. Documents presenting the selected liner design and how it meets performance standards.
- k. Class III waste management units (Class III "Units") shall be designed and constructed to prevent migration of wastes from the Units to adjacent geologic materials, ground water, or surface water, during disposal operations, closure, and the post closure maintenance period. Class III Municipal Solid Waste landfills are also subject to any applicable waste containment system design requirements of California Regulations: Title 27, Environmental Protection – Division 2, Solid Waste, SWRCB Resolution No. 93-62 to the extent that such requirements are more stringent than those applicable to a non-MSW Class II landfill under Title 27, Division 2, Solid Waste; Subdivision 1; Chapter 3, Criteria for All Waste Management Units, Facilities, and Disposal Sites; Subchapter 2 – Siting and Design, Article 4 SWRCB Waste Management Unit Construction Standards §20310, SWRCB General Construction Criteria (C15 Section §2540).
- l. Each Class III Unit shall be designed and constructed for the containment of the specific wastes which will be discharged.

**2.3.2. Task 3.2 Submittals**

- a. All submittals shall be prepared for two separate cells so that Cell 6 and Cell 7 can be bid and constructed separately, or readily combined into one bid and shall be signed and stamped by a Professional Engineer in accordance with Section 6735 of the California's Business and Professions Code.
- b. Drawings for all submittals for Cell 6 and Cell 7 shall be prepared by Consultant using AutoCAD Civil 3D (release 2013 or later) to a scale of 1" = 50' (minimum). A disk copy of the drawing files shall be supplied to the County with representative hard copy drawings and electronic copies of their content. Details of the design including cross-sections for both Cell 6 and Cell 7 shall be shown enlarged on the detail sheets and will be cross-referenced to the plans and construction notes. It is estimated that approximately 10 to 12 sheets will be required to prepare the Cell 6 and 7 composite liner construction plan set. Calculations and written reports shall be prepared with using Microsoft Word or Excel (version 2007).
- c. Communication with the State Water Resources Control Board: Consultant shall be responsible for uploading all required plans, specifications, and documentation for Cell 6 and Cell 7 to the State of California Water Resources Control Board's data management system, Geotracker, for the State's review. Consultant shall notify the State of California and any necessary agencies via e-mail that the documents have been uploaded to the GeoTracker database.
  - i. It shall be the Consultant's responsibility to regularly track the progress of all submittals to the State Water Resources Control Board. Consultant shall follow up with the State on each submittal no later

than the 30 day point, the 45 day point, and the 60 day point. The County anticipates a review process of no longer than 60 days.

- d. County requires submittals in accordance with the approved schedule for each task. Submittals shall be reviewed by County. At least one set of documents will be returned to the Consultant marked with comments and required changes and corrections. County may require re-submittal of any required submittal or portion thereof. The Consultant shall allow at least 15 working days for County submittal review, and 15 working days shall be allowed for the final submittal from receipt of the 90 percent or final review comments. Consultant shall be responsible for all submittals to those required regulatory agencies.

2.3.2.1. Submittals shall be submitted in accordance with the specific requirements listed below.

- a. Plans – Five (5) sets of plans for Cell 6 and Five (5) sets of plans for Cell 7 shall be submitted to the County for review at the 60 percent, 90 percent, and final completion level. The content, format and level of completion for each submittal shall be as specified in the County Standards or as approved by the County Project Manager. Plans shall reference the following documents as applicable: County Standard Plans or as approved by County designee. Consultant shall be responsible for submitting all necessary plans to those required regulatory agencies.
- b. Engineer's Estimate - Five (5) copies of the Engineer's Estimate shall be submitted to County for each stage of review for review and comment. Consultant shall provide the County with the estimated cost of constructing Cells 6 and 7 together compared with the estimated cost of constructing Cells 6 and 7 separately, in order to determine if there are substantial cost savings in constructing the two cells simultaneously.
- c. Geotechnical Report - The Geotechnical Report shall be submitted to the County with the each design submittal.
- d. Final Design - Final design submittals shall include the products and numbers of copies as indicated below and in Task 3.3 – Task 3.5:

2.3.2.2. Some of the PS&E guidelines are as follows:

- a. On the Plans:
  - i. Station, offset and coordinates of all piping and related infrastructure, and actual quantity calculations used for the construction bid documents;
  - ii. Station, offsets and coordinates for all items of work requiring field staking;
  - iii. Coordinates and description of intervisible control points;
  - iv. Drawing layers shall be named to indicate the contents of that layer; and
  - v. Electronic files shall be named to indicate sheet number.

- b. In tabular format on a plan sheet:
  - i. Coordinates and description of intervisible control points;
  - ii. Coordinates of all items of work require field staking; and
  - iii. Benchmark information shall be provided on each sheet.
- c. Provide project layout plan to include lot lines (front and side) and address properties (adjacent to construction, or alternatively, in service area).
- d. Coordinate directly with utility companies to ensure that all existing utilities are completely and accurately located in the field; that pertinent information regarding depth, material, size, etc., are noted on the plans; and that conflicts requiring relocation of utilities of special construction techniques are fully specified in the contract documents.

2.3.2.3. Conceptual Design submittal shall include the following:

- a. Basis of Design technical memorandum summarizing design rationale and the table of contents for the design report for Cell 6 and Cell 7.
- b. Conceptual Design Plans. Consultant shall develop a conceptual design (sketch plans and details) that identifies the proposed layout of the cells and all major ancillary components of the project. The Conceptual design shall be prepared so that Cell 6 and Cell 7 can be bid and constructed separately. Conceptual Design shall include, but not be limited to:
  - i. Title Sheet with legend, vicinity and location maps;
  - ii. Liner grading, including base liner, slope liner, leachate sump and limits of grading (limited construction note detailing);
  - iii. Cross sections of the existing topography and liner grading;
  - iv. Standard liner details; and
  - v. Location of existing and proposed (LCRS pump control panel) utilities. This shall include connection points for both the mechanical and electrical services, and any needed interaction with Turlock Irrigation District (TID) to bring electricity to the leachate sump pumps.
- c. Specifications and CQA outline.
- d. Preliminary Engineer's cost estimate (30% contingency).
- e. Geotechnical Investigation Report, in accordance with Task 2.5.
- f. LCRS and Surface Water Design Calculations.

2.3.3. **Task 3.3 60% Complete Design**

- a. The 60% Design phase shall include engineering and design services, plan development, permitting, soil testing, drawings, specifications, engineer's estimate and construction documents of two (2) Class III Waste Management Unit (municipal solid waste) landfill cells, base liners and leachate collection

systems for LF-2, Cell 6 and Cell 7. The work shall include securing of regulatory approval for the system including the solid waste facility permit, waste discharge requirements, and air quality management permits, if necessary. Recommendations are to include layout of piping, pumps, and other necessary equipment to transport Leachate to SI-2.

- b. Consultant shall prepare a 60 percent design and submit to the County for review and comment. The 60 percent design should include a draft version of all sheets to be included in the design, an outline of the project technical specifications, an outline of the project CQA Plan, and a project cost estimate for both Cell 6 and Cell 7. The 60 percent design shall be prepared for two separate cells so that Cell 6 and Cell 7 can be bid and constructed separately, or readily combined into one bid.
- c. Based on annual tonnage projections to be provided by the County, and incorporating the completed conceptual design, Consultant shall complete a detailed design of the two (2) proposed Class III Waste Management Unit (municipal solid waste) landfill base liners and leachate collection systems. The design shall maximize landfill airspace subject to restrictions requested by Waste Discharge Requirements No. R5-2008-0144, issued by the RWQCB. The design shall be of suitable detail to enable the full permitting of the project.
- d. The design shall include basic information on the entire cell(s), including proposed phasing, and a permit level design of all work to be initially constructed. The cells should have an estimated life as required by the Waste Discharge Requirements No. R5-2008-0144, issued by the RWQCB.
- e. Consultant shall prepare a preliminary system layout for leachate collection systems. Layout shall show arrangement and location of all applicable collection pipes, pumps or lift stations, valves, cleanouts, vaults, ponds or other structures. Layout shall differentiate pressurized flow and gravity flow pipes and shall include elevations of all critical structures.

2.3.3.1. Consultant shall review and clarify comments from the County's review of the Conceptual Design within the first week of receipt of the County's review comments. Consultant shall then further refine the design based on the comments and remaining design tasks. Any adjustments to the design calculations and modeling are anticipated to be minimal at this stage in the design which may be derived from significant geometric layout changes occur should there be any changes to the calculations.

- a. Consultant shall focus primarily on preparing the remaining design plans outlined in the submittal below and preparing the preliminary Design Report that will eventually be presented to the RWQCB. Additional design work proposed for the 60% complete submittal includes subgrade excavation plan, operations layer grading plan, fill phasing with access roads and final BMPs. A schematic layout and more detailing of the LCRS pump control panel and mechanical layout will be performed. The Design Report preparation task and approach are presented in Task 4. The draft Design Report and the 60% complete design shall be submitted as one package to the County for review. The 60% design shall be prepared for two separate cells so that Cell 6 and Cell 7 can be bid and constructed separately, or readily combined into one bid.



Consultant shall prepare an estimated time of construction based on this submittal. Consultant shall also prepare an amendment to the Water Quality Management Plan, if needed.

2.3.3.2. **Task 3.3 Submittals:** The 60% Design Submittal shall include the following for Cell 6 and Cell 7:

- a. Draft Design Report (prepared in Task 4).
- b. 60% complete Design Plans:
  - i. Title sheet with legend, vicinity and location maps;
  - ii. updated liner grading, including base liner, slope liner, leachate sump and limits of grading with construction note detailing;
  - iii. Subgrade grading;
  - iv. Operation layer grading sheet with access road(s) and final BMPs;
  - v. Cross sections of the existing topography and liner grading with detail callouts where appropriate;
  - vi. Standard liner, liner connection, LCRS and BMP details; and
  - vii. Schematic layout and detailing of LCRS pump control panel and LCRS mechanical layout. This shall include connection points for both the mechanical and electrical services, and any needed interaction with Turlock Irrigation District (TID) to bring electricity to the leachate sump pumps.
- c. Specifications and CQA Plan.
- d. Engineer's Cost Estimate (20% Contingency).
- e. Geotechnical Investigation Report (See Task 2.5).
- f. LCRS and Surface Water Design Calculations.
- g. Electronic files and five (5) sets of 24" x 36" hardcopy submitted to the County for review and comment.

2.3.4. **Task 3.4 90% Complete Design**

- a. Consultant shall prepare 90 percent engineering design incorporating County comments on the previous submittal. Consultant shall submit 90 percent design to the County and regulatory agency for review and comment. The 90 percent design shall include final drafts of all drawings, special provisions, and technical specifications, the final draft of the Project CQA Plan, and engineer's itemized final 100 percent construction cost estimate for both Cell 6 and Cell 7 and provide written bid item measurement and payment recommendations. The 90 percent design shall be prepared for two separate cells so that Cell 6 and Cell 7 can be bid and constructed separately, or readily combined into one bid. Consultant shall provide an updated recommendation as to the number of working days for construction.
- b. Consultant shall review and clarify any comments from the County's review of the 60% design submittal within the first week of receipt of the County's review comments. Consultant shall then further refine the design based on

the comments and remaining design tasks. No adjustments of note to the design calculations and modeling are anticipated at this stage. For the 90% complete design, Consultant shall finalize the Design Report document for submittal to the RWQCB and perform a constructability review of the 90% documents.

- c. Consultant's constructability review shall be performed by Consultant's senior construction management staff in coordination with County staff. This shall be a critical element in sound design, and shall comprise of a thorough review by a group with expertise in landfill construction and operation in order to potentially foresee and prevent any construction related problems before they occur. The proposed design shall be routinely reviewed throughout its development for impacts related to logistics of grading and materials handling, potential traffic impacts, lay-out and work areas, material delivery, water availability and quality control. The constructability review process shall extend to ensuring that all referenced documents and procedures are up to date and that lessons learned on previous projects are used for the benefit of this project. Consultant's construction managers are actively working in the field and shall be able to incorporate practical and valuable experience to this project.
- d. The Design Report task items and approach are listed in Task 4. The Design Report and the 90% design shall be submitted as one package for Cell 6 and Cell 7. Although this is in name a 90% design, Consultant considers this a draft final and as such Consultant considers this to be near 100% complete for the sake of the RWQCB review. Consultant shall allow for a final submittal in Task 3.4 to ensure that all comments from the County and RWQCB can be incorporated and also to ensure that all contracting issues are resolved prior to submitting the package for bidding.
- e. **Task 3.4 Submittals:** The 90% submittal will include the following for Cell 6 and Cell 7:
  - i. Design Report (prepared in Task 4);
  - ii. Design Plans (same sheet list per 3.2 submittals);
  - iii. Specifications and CQA plan outline;
  - iv. Final engineer's cost estimate (10% contingency);
  - v. Geotechnical Investigation Report (see Task 2.5); and
  - vi. LCRS and surface water design calculations.
- f. This submittal shall be reviewed for conformance to County Standards. Deliverables shown above shall be electronic files and five (5) sets of 24" x 36" hardcopy.

**2.3.5. Task 3.5 Final Construction Documents**

- a. Consultant shall prepare the final engineering design incorporating County comments and RWQCB comments identified in the 90 percent design review for both Cell 6 and Cell 7. The Final Construction documents shall be prepared for two separate cells so that Cell 6 and Cell 7 can be bid and constructed separately, or readily combined into one bid.
- b. Consultant shall provide complete plans and specifications for a unit price construction contract for both Cell 6 and Cell 7. Plan sheets shall be prepared utilizing the latest County drafting standards.

- c. Consultant shall provide a complete CQA Plan for construction of Cell 6 and Cell 7. Consultant must submit CQA plan to the RWQCB for review and approval.
- d. Consultant shall review and clarify any comments from the County's and RWQCB review of the 90% design submittal within the first week of receipt. Consultant shall formally respond to the RWQCB's comments as part of Task 5. After concurrence on any outstanding issues that the County or RWQCB may have, Consultant shall make any incidental edits to the design package and finalize all contracting language/items within the plans, specifications, CQA plan and bid schedule.
- e. **Task 3.5 Submittals:** The final construction documents submittal will include the following for both Cell 6 and Cell 7:
  - i. Final Design Report (prepared in Task 4);
  - ii. Design Plans (same sheet list per 3.2 submittals);
  - iii. Specifications and CQA plan outline;
  - iv. Bid schedule;
  - v. Geotechnical Investigation Report (see Task 2.5); and
  - vi. LCRS and surface water design calculations.
- f. Final Construction Documents for both Cell 6 and Cell 7 shall be in accordance with the following:
  - i. Engineering drawings/Construction plans shall be on 22"x34" mylar stamped and signed by an engineer licensed in the State of California;
  - ii. Camera ready technical specifications;
  - iii. Electronic files for the above;
  - iv. A list of submittals required in the construction specifications, identifying the item and section where the requirement is made and quantity calculation for the construction management company;
  - v. Construction plans on CD in AutoCAD 3D Release 2013 format (or later);
  - vi. All topographic, control and design points in the DraWinG (.dwg) file and in tabular format, both on disk and on a hard copy print-out;
  - vii. Quality control and assurance plan in compliance with WDR's and the RWQCB requirements;
  - viii. Complete specifications on disk in Word 2007 or later format for printing by the County;
  - ix. A unit price cost estimate on disk in Excel 2007 or later format;
  - x. Consultant shall submit the Final Design Report to the RWQCB for approval; and
  - xi. CQA Plan in accordance with Task 3.7.

2.3.6. **Task 3.6 Construction Specifications**

- a. Consultant shall prepare construction specifications using Microsoft Word for Windows (Version 2007), or as approved by the County for both Cell 6 and Cell 7. The Construction Specifications shall be prepared for two separate cells so that Cell 6 and Cell 7 can be bid and constructed separately, or readily combined into one bid. The specifications shall require that a Construction Health and Safety component detailing the minimum requirements for the liner system construction activities shall be required by the project specifications. The specifications shall be developed in accordance with Title 27, the approved site permits and California contracting code.
- b. The specifications, where possible shall utilize standard specifications and plans developed by the Geosynthetic Research Institute (GRI), ASTM, CalTrans and the Standard Specifications for Public Works Construction "Greenbook". Also where possible tests, minimum test values and frequencies will be listed in tables for ease of reference.
- c. To the greatest extent possible the Consultant shall minimize writing of redundant specifications for installation of two (2) landfill Class III Waste Management Units (municipal solid waste) LF 2, Cell 6 and Cell 7 base liners and leachate collection systems. Technical Specifications shall be developed in the format and content acceptable to the County.
- d. The technical specifications shall be complete and ready for construction, including all specifications to: support the plans, identify material, indicate inspection and testing requirements, and ensure a quality product. The Technical Specifications shall include all material specifications for the base liner systems and other associated appurtenances in conformance with the Title 27 and WDR requirements.
- e. The draft specifications shall, as a minimum, be an outline of the specifications indicating format, numbering and section and subsection titles.
- f. Calculations: County may request calculations for specific items of work at each design submittal phase of the project. This shall include alignment calculations, structural calculations, drainage calculations and any other necessary calculations. Upon completion of work, a copy of all design calculations shall be submitted to County for approval. Design calculations shall be submitted in a comb-bound notebook(s), in a neat condition and logical sequence;
- g. Approach to Ensuring Project Constructability: Consultant shall review project plans and specifications for constructability and bid-ability for Cell 6 and Cell 7. When reviewing for buildability, Consultant shall check for completeness of the drawings. This shall include a cross-check among the various disciplines (e.g., civil, environmental, geotechnical). Critical dimensions shall be reviewed to limit the likelihood of construction delays and bidding errors. When checking for bid-ability, Consultant shall perform a review of details, notes, sections, elevations, site plans, and specifications. This review will crosscheck the use of detail references and confirm the consistent use of design features to specifications and other plan details.

- h. Requirement for Contractor to provide a Traffic Control Plan: Consultant shall include in their specifications/scope of work the requirement for the contractor to provide Traffic Control Plans identifying detour routes, flagger(s), and signage for various stages of construction for the construction of both Cell 6 and Cell 7. Landfill operations and traffic are to be maintained during construction and shall be considered to have right of way under all circumstances unless flagger(s) are provided;
- i. Design specifications for both Cell 6 and Cell 7 shall include a statement that the construction contractor will supply their own water.
- j. Design specifications for both Cell 6 and Cell 7 shall state that this project does not include excavation of refuse or contact with refuse. However, the work includes excavation near refuse, and work on the landfill surface. The construction contractor shall be aware that this work is in the landfill and that potential hazards exist due to the presence of these buried materials, including those associated with landfill and the refuse itself.
- k. On-Site Materials Management: Design for both Cell 6 and Cell 7 shall include excavation and relocation of materials from site of LF-2 as follows:
  - i. The material(s) that shall be excavated for the construction of both LF-2 Cell 6 and Cell 7 consist of clay, rock, sand, gravel, and dirt. These material(s) shall be excavated as per instructions set forth by County Landfill representatives and/or the onsite Construction Quality Assurance (CQA) Manager whereby black clay for the liner systems, and gravel for the side-slopes, shall be separated according to type, for the purpose of testing, and if found to be acceptable to the CQA Manager, shall be used during the construction of both LF-2 Cell 6 and Cell 7.
  - ii. Consultant shall effectively manage select excavation and segregation of the low permeable and sandy soil layers. These materials are of a finite quantity at the site and, therefore, shall be carefully identified and excavated. Consultant shall prepare a Work Plan that outlines a thorough field and lab investigation of the material that is to be excavated in Cells 6 and 7. Consultant shall prepare a geotechnical soils report with a discussion of the analysis performed and recommendations for excavation procedures. Consultant shall use this report as the foundation for the technical specifications and CQA plan. Consultant's QC review of these documents and plans shall be performed by the senior geotechnical engineer, vice president of construction management, and the senior civil engineer to ensure that the specifications are clear, achievable, and cost effective.
  - iii. The methodology used to perform the excavation of black clay and gravel material(s) shall be to test applicable materials for suitability during construction, and if found to be acceptable to the CQA Manager, excavate primarily flat (horizontal) thereby avoiding the mixing of different strata's associated with down-slope cutting. Care shall be exercised by the construction contractor to ensure the integrity of the excavated material(s).
  - iv. The County believes there is sufficient material onsite to construct the bottom clay liner and side slopes based on past experience, provided the materials are properly excavated and segregated by the construction

contractor. The construction contractor shall obtain soil borings onsite to make the final determination that the various soil types are, in fact, present and in sufficient quantities to construct the bottom clay liner and side slopes.

- v. Earthfill soils shall not include cohesionless fine sands.
- vi. Consultant understands that the County intends on directing stockpiling of soil material to be located in the newly acquired property located west of the site. Consultant proposes locating the stockpiles on top of the unclosed lined refuse cells. This would provide several benefits to the County including: providing for a shorter haul and therefore cheaper construction and operational costs to bring the material back for daily and intermediate cover; placing an overburden on the existing waste and therefore creating additional airspace due to settlement, which will likely exceed ten (10) feet; and limiting LFG surface hits and leachate intrusion. It would be recommended that a stability analysis and leachate collection layer analysis be performed in order to ensure that the waste containment system will not be adversely affected. This would require a specific grading plan with bottom of soil markers placed.

I. **Task 3.6 Submittals:** To be included with Tasks 3.1 through 3.4

2.3.7. **Task 3.7 Construction Quality Assurance (CQA) Plan**

- a. Consultant shall prepare a CQA Plan for the Cell 6 & 7 liner expansion area based on the final plans and specifications to be performed by a registered professional that will satisfy the requirements of section 20324 SWRCB, CQA Requirements (T14: §17774) of the California Regulations: Title 27 Environmental Protection, Division 2, Solid Waste. The CQA Plan shall be prepared for two separate cells so that Cell 6 and Cell 7 can be bid and constructed separately, or readily combined into one bid. The CQA Plan shall be prepared to assure that acceptable test results and inspection observations are obtained in order to ensure that the final product is completed in compliance with minimum regulatory standards and the approved project design. Consultant shall clearly identify all required procedures when failing tests or unforeseen conditions occur. This shall give the construction team (the County, CQA consultant, Contractor and construction manager) the authority and a clear path for resolution without significant delay and budget increases that may occur by involving the engineer of record and RWQCB.
- b. **Performance Standard:** The CQA Plan, including all relevant aspects of Construction Quality Control (CQC), shall provide evidence that materials and procedures utilized in the placement of any containment feature at a waste management unit (Unit) shall be tested and monitored to assure the structure is constructed in accordance with the design specifications approved by the RWQCB.
- c. Consultant shall provide a CQA Plan that identifies the activities required of CQA personnel to monitor construction and verify that it is consistent with the approved design and complies with applicable regulations. The CQA Plan shall be of sufficient detail that the work can be accepted by the appropriate regulatory agencies. The CQA Plan shall contain directives to the CQA firm

only. CQA manual shall not contain directives to the construction contractor;  
and

- d. The CQA Plan shall stress the advantages of a CQA program by concentrating on activities that help prevent construction from being “off-spec” instead of testing after construction to find that construction does not meet specifications and must be reconstructed by examining every aspect of design and construction;
- e. Construction shall proceed only after all applicable CQA plans have been approved by the regulatory agencies and the County or County designee. Upon County’s review and approval, Consultant shall be responsible for submittal of the CQA plans to all regulatory agencies.
- f. The CQA Plan shall be submitted to the County with the 60 percent design, 90 percent design and final design for review and comment. The CQA Plan shall be finalized based on review comments received from the County and RWQCB and shall be signed and sealed by a California-registered civil engineer. Consultant shall be responsible for all submittals to the RWQCB.
- g. The CQA Plan shall conform to all state regulatory requirements, and will among other things, discuss the following:
  - i. General project design information;
  - ii. Definitions of responsible parties and description of specific materials to be used in the construction;
  - iii. Personnel qualifications, chain of command, and CQA organization;
  - iv. Project meetings;
  - v. Test methods, frequencies, and inspection requirements for materials to be used in the construction of the leachate piping and the liner system;
  - vi. Protocols for performing electric leak location testing (liner performance demonstrations). This shall include:
    - vi(a). Qualifications of the testing firm;
    - vi(b). Site preparation requirements;
    - vi(c). Material requirements to be installed for test methods to be successful;
    - vi(d). Calibration procedures for the testing equipment;
    - vi(e). Submittal requirements;
    - vi(f). Calculation procedures for leak detection;
    - vi(g). Repair and re-survey procedures based on when and how large of a repair is required;
    - vi(h). Documentation requirements; and
    - vi(i). Leak detection tests shall have a sensitivity of not greater than ¼”.
  - vii. CQA testing interpretation protocols, including data evaluation, pass/fail criteria, and methods for combining different test methods to provide overall confidence in the quality and uniformity of the completed liner system;
  - viii. Documentation requirements and formats, including daily records, inspection sheets, photographs, acceptance of completed portions of the project, final documentation (Construction Report of Compliance) and document storage;
  - ix. The CQA Plan shall be included in the DRP and shall be prepared under the direction of, and stamped by the Project Geotechnical Consultant, a registered professional civil/geotechnical engineer or registered geologist in the State of California;

- x. The CQA plan shall outline the required submittals for the contractor which will include:
  - x(a). Leak Location Work Plan outlining testing procedures and required site preparation;
  - x(b). Qualifications of the proposed Leak Location Contractor to include the number of years the Leak Location Contractor has performed the proposed survey method;
  - x(c). Resumes of proposed on-site supervisors;
  - x(d). Required site preparations;
  - x(e). Estimated duration of survey;
  - x(f). Quality control and field calibration procedures;
  - x(g). A list of projects demonstrating the qualifications and experience where the proposed Leak Location Contractor and leak location supervisor have met the requirements of the waste discharge requirements; and
  - x(h). Sample of a final report (per ASTM D7002 and D7007) provided by the Leak Location Contractor following the completion of the survey.
- xi. The contractor shall be required to test after installation of the geomembrane and installation of the operations layer. This will enhance quality control by readily identifying the leaks prior to an expensive repair;
- xii. The CQP plan shall outline repair and testing procedures for any damaged liner. Any leaks found shall be repaired and retested by the Contractor;
- xiii. Interface strength requirements from the slope stability analysis;
- xiv. Earthwork quality assurance for excavation engineered fill, drainage layer, operations layer, including testing program;
- xv. The frequency of performance audits determined by the design professional and examined by the CQA officer;
- xvi. The size, method, location and frequency of sampling, sampling procedures for laboratory testing, the soils or geotechnical laboratory to be used, the laboratory procedures to be utilized, the calibration of laboratory equipment and quality assurance and quality control of laboratory procedures; and
- xvii. Final Documentation at the completion of the project: The Consultant shall detail in the CQA Plan that the Construction Report of Compliance contain all reports submitted concerning the placement of the containment system. This document shall provide evidence that the CQA Plan was implemented as proposed and that the construction proceeded in accordance with the design criteria, plans, and specifications.

h. **Task 3.7 Submittals:** To be included with Tasks 3.1 through 3.4.

2.3.8. **Task 3.8 Engineer's Cost Estimate**

- a. Consultant shall prepare an engineer's cost estimate for Cell 6 and Cell 7, for the work shown on the construction drawings and details and included in the technical specifications. Consultant shall provide the County with the estimated cost of constructing Cells 6 and 7 together compared with the estimated cost of constructing Cells 6 and 7 separately, in order to determine if there are substantial cost savings in constructing the two cells simultaneously. The estimates shall be prepared based on final material quantities using unit prices developed from published local cost data and from experience with similar work. All quantity "take-offs" shall be double



checked and shall meet internal quality control guidelines in order to be deemed correct. Costs shall include labor, equipment, materials, contractor mark-up and overhead. Consultant shall work with multiple contractors and vendors to help develop costs for individual large cost or unusual bid items to confirm that Consultant's internal estimated costs are reasonable. A bid schedule tabulating specific items and units (the bidding contractors shall prepare quantities and unit prices for use) shall be prepared for each Cell.

- b. Estimates shall use as a basis, wherever possible, historic and current cost data from County construction projects or industry historic and current cost data for like projects. Escalation factors shall be used to adjust cost data. Estimates shall be prepared using quantities extended by unit prices to the greatest extent possible. Lump-sum bid items shall only be used where appropriate.
- c. **Task 3.8 Submittals**: To be included and described in Tasks 3.1 through 3.4.

## **2.4 Task 4: Design Report Preparation**

- 2.4.1. A design report containing a text description of the proposed Cell 6 & 7 composite liner design, including design assumptions, calculations, construction drawings, project specifications, CQA plan, and Low Permeability Material Report, will be prepared and transmitted to the County for submittal to the RWQCB. The Design Report shall be prepared for two separate cells so that Cell 6 and Cell 7 can be bid and constructed separately, or readily combined into one bid. An important step in this process will be to maintain close coordination between the County and the RWQCB to present the proposed design prior to the submittal of the design report.
- 2.4.2. Electronic files and five (5) sets of 24" x 36" hardcopy submitted to the County for review and comment.
- 2.4.3. Task 4 Submittals: Design Report submittals have been outlined in Task 3.4.

## **2.5 Task 5 Permitting**

Consultant shall obtain approval and permits, if necessary, of the final design documents from CalRecycle, RWQCB, and the San Joaquin Valley Air Pollution Control District (APCD) for both Cell 6 and Cell 7. Consultant shall also perform any necessary updates to the site's Joint Technical Document as required by CIWMB and RWQCB, as described in Title 27 CCR.

- a. **Response to Regulatory Agency Comments**: Consultant shall prepare a modified solid waste facility permit if it is determined that the limits of Cell 6 and 7 are outside the already permitted boundary. Consultant's fee estimate is based on receiving all previous JTD documents in an electronic format and only preparing those sections pertinent to a revised boundary. If other sections need to be updated including closure and post closure cost estimates a separate fee will be provided for that work.

Consultant shall revise the Design Report and, if necessary, prepare formal responses to comments (if any) from the RWQCB. Consultant shall provide up front interaction with the RWQCB and prepare thorough construction level design documents. Based on Consultant's review of the current permit documents, the RWQCB appears to be settled on an approved design which Consultant shall reflect in their Design Report.

- b. Solid Waste Facility Permit (SWFP). The SWFP (number 50-AA-0001) was issued on August 14, 2007 and the next permit review is not until August 17, 2017. Consultant shall review the SWFP and JTD to ensure design consistency with permitted cell limits, boundaries and specifications, so as not to require any changes to the JTD.

If a revision to the SWFP is required, Consultant shall submit the revised/modified permit to CalRecycle within one month of the RWQCB's approval of the Final Design. It shall be the Consultant's responsibility to regularly track the progress of the revised/modified permit submittal. Consultant shall follow up with CalRecycle no later than the 30 day point, the 45 day point, and the 60 day point. The County anticipates a review process of no longer than 60 days.

- c. Waste Discharge Requirements. Consultant shall ensure that construction documents submitted to the RWQCB for the proposed Cells 6 and 7 will comply with the requirements within Section F, of the Procedural Requirements, in WDR Order Number R5-2008-0144. Consultant anticipates that the update to the water quality monitoring plan will likely include only adding the Cell 6 and 7 lysimeter to the list of sampling points. All WDR Monitoring and Reporting frequencies, protocols and constituents testing is expected to remain the same.
- d. Consultant shall submit the following items as part of the Design Report package to the Regional Water Board staff at the 90% level for review and approval prior to construction, design plans and specifications for new Units and expansions of existing Units:
  - i. A Construction Quality Assurance Plan meeting the requirements of Title 27 CCR Section 20324;
  - ii. A geotechnical evaluation of the area soils, evaluating their use as the base layer;
  - iii. A revised water quality monitoring plan;
  - iv. An unsaturated zone monitoring system, which is demonstrated to remain effective throughout the active life, closure, and post closure maintenance periods of the Unit, which shall be installed beneath the composite liner system in accordance with Title 27 CCR Section 20415(d); and
  - v. An Operation Plan meeting the requirements of Title 27 Section 21760(b).

### C. AGREEMENT PERIOD

This Agreement shall commence upon the signing of this Agreement and continue until **December 31, 2017**, or until the work required herein is completed, unless previously terminated as provided herein or as otherwise agreed to in writing by the parties.

### D. PREVAILING WAGE

- 1. **Prevailing Wage:** By its execution of this Agreement, Consultant certifies that it is aware of the requirements of California Labor Code Section 1720 et seq. and 1770 et seq. as well as California Code of Regulations, Title 8, Section 16000 et seq. ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on certain "public work" and "maintenance" projects. Senate Bill 1999 amended Section 1720 of the California Labor Code in part to provide that: "For purposes of this paragraph "construction" includes work performed during the design and preconstruction phase of construction including, but not limited to, inspection, observation and land surveying work". Maintenance includes: (1) Routine, recurring and usual work for the preservation, protection and keeping of any publicly

owned or publicly operated facility (plant, building, structure, ground facility, utility system or any real property) for its intended purposes in a safe and continually usable condition for which it has been designed, improved, constructed, altered or repaired. (2) Carpentry, electrical, plumbing, glazing, [touchup painting,] and other craft work designed to preserve the publicly owned or publicly operated facility in a safe, efficient and continuously usable condition for which it was intended, including repairs, cleaning and other operations on machinery and other equipment permanently attached to the building or realty as fixtures. Maintenance as defined in the California Code of Regulations, Title 8, and Section 16000, Article 1 is subject to payment of prevailing wage pursuant to Labor Code section 1720.

- 1.1. Pursuant to Labor Code Section 1771, certain work under this project is subject to the provision of Article 2 (commencing with section 1770) of Chapter 1 of Part 7 of Division 2 of the Labor Code, and the Consultant shall pay all workers the general prevailing rate per diem wages applicable to the work to be done for straight time, overtime, Saturday, Sunday and holiday work. These wage rates, are set forth by the Director of the Department of Industrial Relations and shall be part of the Agreement.
- 1.2. Pursuant to the provisions of Section 1773 of the Labor Code of the State of California, the Board of Supervisors has obtained the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in this locality of each craft, classification, or type of worker needed to execute this Agreement from the Director of the Department of Industrial Relations. Copies of these rates may be obtained from the State of California Industrial Relations Department Division of Labor, website [www.dir.ca.gov](http://www.dir.ca.gov); Statistic & Research (415/972-8620) or the Department of Transportation (916/445-3520).
- 1.3. If the Scope of Work is being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws in the California Labor Code Section 1720, and if the total compensation is \$1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Scope of Work available to interested parties upon request, and shall post copies at the Consultant's principal place of business and at the project site. Consultant shall also adhere to any other applicable requirements, including but not limited to, those regarding the employment of apprentices, travel and subsistence pay, retention and inspection of payroll records, workers compensation and forfeiture of penalties prescribed in the Labor Code for violations. Consultant shall defend, indemnify and hold the County, its elected officials, officer, employees and agents free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with Prevailing Wage Laws. The provisions of Sections 1720, 1770, 1771, 1773, 1774, 1775, 1776, 1777, 1778, 1813 and 1815 of the Labor Code shall be complied with.
- 1.4. Wage Rate Penalty: Pursuant to the provisions of Section 1775 of the Labor Code, Consultant and any sub-consultant shall forfeit to County, as a penalty, the sum of \$200 for each calendar day, or portion thereof, for each laborer, worker, or mechanic employed, paid less than the stipulated prevailing rates for any work done under this Agreement, by Consultant or by any Consultant sub-consultants, in violation of the provisions of this Agreement.
- 1.5. Payroll Records: Pursuant to the provisions of Section 1776 of the Labor Code:
  - 1.5.1. Consultant and each sub-consultant performing any portion of the work under this Agreement shall keep an accurate record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by Consultant in connection with

the work.

- 1.5.2. Said payroll records shall be certified and shall be available for inspection at the principal office of Consultant on the basis set forth in Labor Code Section 1776.
- 1.5.3. Consultant shall file a certified copy of said payroll records with County within 10 days after receipt of a written request therefore from County.
- 1.5.4. Consultant shall inform County of the location of said payroll records, including the street address, City and County, and shall, within five (5) working days, provide a notice of change of location and address of said payroll records.
- 1.5.5. It shall be the responsibility of Consultant to ensure the compliance with the provisions of this Clause and the provisions of Labor Code Section 1776.
- 1.5.6. In the event of noncompliance with the requirements of this Clause and the requirements of Labor Code Section 1776, Consultant shall have 10 days in which to comply subsequent to receipt of written notice specifying in what respects Consultant must comply. Should noncompliance exist after said 10 day period, Consultant shall, as a penalty to County, forfeit \$25 for each calendar day, or portion thereof, for each worker to whom the noncompliance pertains, until strict compliance is effectuated. Consultant acknowledges that, without limitation as to other remedies of enforcement available to County, upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement of the California Department of Industrial Relations, such penalties shall be withheld from invoice payments due to Consultant for completed task orders.

## **E. COMPENSATION**

### **1. Invoicing**

The following are guidelines regarding invoicing procedures:

- 1.1. The Consultant shall submit payment requests monthly.
- 1.2. Invoicing for personnel above the rate of Project Manager is not permitted and is considered an overhead cost to the Consultant, unless expressly requested by County.
- 1.3. Overhead staff (i.e., clerical staff) is non-billable, unless a project requires a large amount of clerical time. Where clerical billing is requested, Proposer shall provide in their proposal a detailed justification (e.g. scope of work) and budget estimate that demonstrates why clerical billing is needed.
- 1.4. Accounting time associated with preparing Invoices, Work in Progress (WIP) and Accounts Receivable (AR) reports, and other necessary tasks, is non-billable.
- 1.5. Administrative assistance will be non-billable unless a project requires a large amount of administrative time. Where administrative assistance is requested, Proposer shall provide in their proposal a detailed justification (e.g. scope of work) and budget estimate that demonstrates why administrative assistance is needed.
- 1.6. Meetings held between County staff and Consultant's staff to discuss Consultant's non-performance or lack thereof shall not be billable to the County.

- 1.7. If any personnel working on this contract are promoted, their billing rate will remain the same as indicated on the approved schedule of rates submitted with the initial contract or addendum thereafter.
- 1.8. The Consultant awarded the Agreement shall bill all active work orders on a monthly basis and shall provide a billing summary sheet of all work orders as an attachment. Each work order invoice shall include a brief description of the work completed to support the amount being invoiced.
- 1.9. Consultant shall be compensated for the completion of the fixed fee portions of the services described in Exhibit A, and the not to exceed amounts for each task as set forth below set forth in Exhibit B attached hereto and, by this reference, made a part hereof. The not to exceed lump sum amounts for each task are comprised of the hourly billable rates set forth in Exhibit B. In addition to the aforementioned fees, Consultant shall be reimbursed for the following expenses, plus any expenses agreed to by the parties as set forth in a Schedule of Rates – Exhibit B attached hereto, that are reasonable, necessary and actually incurred by the Consultant in connection with the services:
  - (a) Any filing fees, permit fees, or other fees paid or advanced by the Consultant;
  - (b) Expenses, fees or charges for printing, reproduction or binding of documents at actual costs; and
  - (c) Travel expenses shall be reimbursed in accordance with the County's travel policy, which is incorporated herein by reference. No mark-up is allowed on travel reimbursement.
- 1.10. Fees plus reimbursable expenses shall not exceed the amounts set forth in Exhibit B and a copy of the original invoice for the items listed in a, b or c above shall be attached to the invoice submitted to the County for reimbursement. Payments shall be based upon work documents submitted by the Consultant to the County and accepted by the County, as being satisfactory to County's needs, not work in process. The County shall not pay a markup on any of the above items listed in a, b or c or any item identified in Exhibit B. Items such as a telephone, fax, postage or freight are already included in the billable hourly rate. Back up documentation shall accompany all invoices containing reimbursable items authorized in the Contract.
- 1.11. Invoice to Address
  - a. The terms of payment are Net 30 days after approval of invoices.
  - b. Consultant shall submit a detailed invoice for work actually completed. The invoice is to include but not be limited to the following information: hours worked by Consultant's Staff, the title of the Staff, billable rate, actual copies of equipment rental invoices, detailed information on equipment being rented, and reimbursable items that are reasonable, necessary and actually incurred by the Consultant in connection with the services. All invoices including reimbursable items shall have appropriate back up documents (i.e. copies of receipts) attached to the invoices. No mark-up is allowed on reimbursable items and travel reimbursement and copies of all receipts must accompany the invoice. Consultant shall be compensated for services rendered and accepted under this Agreement and shall be paid monthly, in arrears, on a time and materials basis not to exceed the per task totals for work performed and services provided.
  - c. Maintenance and Weekly Submission of Certified Payroll Records. The Consultant

and each of its Sub-consultants shall maintain accurate, complete and current payroll records as required by the Labor Compliance Programs (LCP). Each payroll record shall contain or be verified by a written declaration as required by Labor Code Section 1776. During the progress of the prevailing wage work, until Final Payment is due, the Consultant and its Sub-consultants shall maintain and submit Certified Payroll Records on a weekly basis. No later than 5:00 P.M. on each Monday during the Work, the Consultant shall submit Certified Payroll Records for the Consultant and its Sub-consultants for all persons providing or performing any Work in the immediately preceding week. The original copies of Certified Payroll Records shall be submitted by the Consultant to the Contract Administrator or such other person or entity as directed by the County; concurrently with the Consultant's delivery of the original copies, a duplicate copy of each Certified Payroll record submitted by the Consultant to the Contract Administrator shall be transmitted to the County's Department of Environmental Resources. The Certified Payroll Records maintained and submitted hereunder shall be in strict conformity with requirements established in the LCP. A material obligation of the Consultant under the Contract Documents is the Consultant's and its Sub-consultant's strict compliance with requirements of the LCP relating to maintenance and submission of Certified Payroll Records. The Consultant's submittal of weekly Certified Payroll Records in strict conformity with requirements of the LCP is an express condition precedent to the County's obligation to disburse any Progress Payment to the Consultant and the Consultant's entitlement to receipt of any Progress Payment.

- d. Invoices shall be mailed or delivered to the County department indicated below. The remit address is:

Stanislaus County  
Department of Environmental Resources  
3800 Cornucopia Way Suite C  
Modesto, CA 95358  
Attn: Stephanie Musso

#### **F. REPRESENTATIVE**

The County's Project Manager is Darryl Yorkey, Stanislaus County Landfill Division: desk (209) 525-6740, cell (209) 402-6539.

#### **G. SAFETY REQUIREMENTS**

All services must comply with current California State Division of Industrial Safety Orders and OSHA.

#### **H. PROTECTION OF EXISTING FACILITIES**

Consultant shall take every precaution to protect all public and private property during the performance of this Agreement. Any damages caused by Consultant's personnel or equipment will be promptly repaired to the condition existing before the damage or be replaced. All such costs for such repairs or replacement shall be the sole responsibility of the Consultant.

#### **I. WORK SCHEDULE**

Consultant is obligated to perform in a timely manner the services and work provided for under this Agreement and the County hereby gives the Consultant notice to proceed with the work as of the effective date of this Agreement. It is understood by Consultant that the performance of these services and work shall require the Consultant to perform the services and work in conformance with a work schedule agreed to by the parties in Exhibit C attached hereto and made a part of this

Agreement.

**J. SITE AVAILABILITY**

The site hours of availability for project shall be from 8:00 a.m. to 4:30 p.m., or a mutually agreed upon time between County and Consultant.

**K. PROJECT WORK EFFORT**

The Consultant shall perform services and shall provide staff who are adequate to meet the anticipated workload for the project.

**L. EXPERTISE**

The Consultant shall provide staff and expertise in all areas defined within this Agreement through their own staff or by the use of designated sub-consultants. The Consultant shall utilize sub-consultants identified in their quote/proposal with the expertise in all areas as defined in this Agreement. On occasion, the Consultant may need to hire specialty sub-consultants not previously identified in their quote/proposal. In either case, County reserves the right to approve the use of sub-consultant firms proposed for specialty work.

The Consultant may provide staff with varying levels of expertise; however, work performed by subordinate staff members shall only be done under the direction of the designated responsible engineers, specified in the contract with the expertise in the required technical areas.

**M. REMOVAL OF UNSATISFACTORY EMPLOYEES**

If, in the opinion of the County, an employee of the Consultant is incompetent or disorderly, refuses to perform in accordance with the terms and conditions of the contract, threatens or uses abusive language while on County property, or is otherwise unsatisfactory, that employee shall be removed from all work under this contract.

**N. COMPLIANCE WITH OSHA**

The Consultant shall be responsible for strict compliance with all requirements of the California Occupational Safety and Health Act (OSHA) which are applicable to the work to be accomplished pursuant to this contract. OSHA shall be construed to include, but not be limited to, all applicable safety orders issued by the Division of Industrial Safety, State of California. In the event the Consultant or any of the Consultant's employees shall observe any violation of OSHA in or on the premises on which the Consultant is to perform work, pursuant to this contract, the Consultant shall immediately give written notice to the County of such violation.

**O. COUNTERPARTS**

This Agreement may be executed in one or more counterparts, each of which shall be deemed an original. All counterparts shall be construed together and shall constitute one agreement.

**THIS PAGE INTENTIONALLY LEFT BLANK FOR DOUBLE SIDED COPYING**



**EXHIBIT B  
FEE SCHEDULE**

**1. PRICE SCHEDULE:**

The Consultant shall provide all the supervision, labor, equipment, materials and tools necessary to perform the services identified in Exhibit A – Scope of Work and in accordance with the rate schedule below. The below fee schedule is in effect through the end of this Agreement.

**2. PROJECT PRICE**

The below project pricing is devised to allow the County the ability to identify costs associated with the frequency of tasks performed in a given calendar year. The Consultant shall be compensated based on the billable hourly rates set forth above to perform the work associated with each task, not to exceed the amounts listed below. Maximum Total Task Price includes fees, travel expenses and reimbursable expenses that are reasonable, necessary and actually incurred by the Consultant in connection with the services. Travel expenses shall be reimbursed in accordance with the County's travel policy.

2.1. A Summary breakdown of the Project fees is as follows:

<b>TASK NUMBER</b>	<b>TASK DESCRIPTION</b>	<b>MAXIMUM TOTAL TASK PRICE</b>
1	Project Management	\$16,793
2	Geotechnical*	\$12,728
3	Engineering Design Services	\$127,159
4	Design Report	\$13,709
5	Permitting	\$13,374
<b>PROJECT TOTAL</b>		<b>\$183,763</b>

\*Prevailing Wage rates apply to any work performed by Consultant under this task that is subject to prevailing wage, as defined in Section D of this Agreement. Certified Payroll records shall be provided based on published prevailing wage determinations for Northern California including Field Soils Tester, Geotechnical Driller, and Field Surveyor under this task.

**3. HOURLY BILLABLE RATES**

3.1. The Consultant shall be compensated on a time and material basis based on the hourly rates, and the not to exceed amounts for each task as set forth below. The following hourly billable rates include: labor, benefits, taxes, overhead/general & administrative (G&A), profit, and ancillary charges such as copies, faxes, telephones, postage, paper clips, binders, company cars, fuel, insurance, vehicle or equipment maintenance, cellular phone charges, computer charges (CADD, word-processing, mapping), etc.

<b>PERSONNEL</b>	<b>RATE</b>
Administrative Assistant (ADA)	\$92
CADD Operator (CO)	\$82
Chief Engineering Technician (CT)	\$133
Chief of Survey Parties (CSP)	\$143
Construction Engineering Technician (CET)	\$144
Construction Manager (CM)	\$177

<b>HOURLY BILLABLE RATES CONTINUED</b>	
<b>PERSONNEL</b>	<b>RATE</b>
Construction Supervisor (CS)	\$152
Data (DP)/Word Processing Secretary (WP)	\$82
Data Analyst (DA)	\$62
Designer (DD)	\$127
Division Engineer (DE)	\$214
Drafter (D)	\$103
Engineer (E)	\$99
Engineer I (E-I)	\$111
Engineer II (E-II)	\$121
Engineer III (E-III)	\$131
Engineer IV (E-IV)	\$141
Engineer V (E-V)	\$151
Engineering Technician (ET)	\$45
Engineering Technician I (ET-I)	\$67
Engineering Technician II (ET-II)	\$80
Engineering Technician III (ET-III)	\$90
Engineering Technician IV (ET-IV)	\$105
Engineering Technician V (ET-V)	\$117
Environmental Engineer (EE)	\$90
Environmental Engineer I (EE-I)	\$95
Environmental Specialist (ES)	\$103
Environmental Specialist I (ES-I)	\$115
Environmental Specialist II (ES-II)	\$131
Environmental Specialist III (ES-III)	\$136
General Clerk (C)/Typist (Y)	\$69
Landscape Architect (LA)	\$137
Office Services Clerk (OS)	\$76
Principal (P)	\$252
Principal Expert (PX)	\$275
Principal Administrator (PA)	\$204
Principal Engineer (PRE)	\$224
Principal Engineering Geologist (PEG)	\$224
Principal Solid Waste Planner (PSW)	\$224
Project Accountant/Analyst (AA)	\$93
Project Coordinator (PC)	\$117
Project Designer (PD)	\$151
Project Manager I (PM-1) / Engineer VI (E-VI)	\$166
Project Manager II (PM-II)/ Engineer V-II (E-VII)	\$176

<b>HOURLY BILLABLE RATES CONTINUED</b>	
<b>PERSONNEL</b>	<b>RATE</b>
Project Manager III (PM-III)	\$186
Regulatory Compliance Manager (RCM)	\$159
Regulatory Compliance Specialist (RS)	\$123
Regulatory Compliance Specialist II (RS-II)	\$139
Senior CADD Operator (SCO)	\$92
Senior Construction Manager (SCM)	\$199
Senior Designer (SDD)	\$138
Senior Drafter (SD)	\$113
Senior Engineer (SRE)	\$196
Senior Environmental Scientist (SNS)	\$163
Senior Environmental Specialist (SES)	\$143
Senior Project Coordinator (SPC)	\$136
Senior Project Designer (SPD)	\$167
Senior Project Manager (SM)	\$201
Senior Regulatory Compliance Specialist (SRS)	\$151
Senior Technical Editor (STE)	\$113
2-Man Survey Party (SP-2M)	\$249
1-Man Survey Party with GPS (1M-GPS)	\$190

3.2. Detailed Cost Proposal fees are as outlined in Section 3.3.3, below.

3.2.1. No markup is allowed on any reimbursable items including travel, supplies, shipping, equipment rental, materials, vehicle mileage and other non-labor equipment costs or direct costs. All travel costs must be in accordance with the County's travel policy.

3.2.2. The Detailed Cost Proposal is based on the following assumptions:

- a. All available electronic data from the previous design report is provided to Consultant in Word, Excel and CAD formats.
- b. If a SWFP is required, it is anticipated Consultant shall only be required to update any text, calculations, and/or figures relating to the liner design. Consultant does not anticipate closure/post closure cost estimates, site operation changes, hours/days of operation, permit applications or site life will need to be completed. Consultant shall prepare a SWFP application package based on preparing text, calculations, and figures associated only with the liner adjustment. Any other tasks shall require additional budget.
- c. Eight (8) meetings have been assumed with six in-person meetings and 2 meetings via teleconference.
- d. Reimbursable charges for incidental costs have been estimated based on previous experience. Actual costs shall be charged per the contract.

- e. Minimal investigation for geotechnical soil testing has been assumed. Although previous data has not been provided, it can only be assumed that a site investigation has been completed for the entire site along with previous individual cell expansions. After the existing data is assessed, Consultant shall notify the County if any additional testing will be required.
- f. Consultant shall prescribe in the construction specifications critical items that must be included in the construction contractor's health and safety plan.
- g. Consultant shall be able to modify the task and subtask budgets and staffing allocations based on need, however, the overall total budget shall not be modified.
- h. Consultant shall be able to use staff not specifically outlined in the below Detailed Cost Proposal to perform work on this project, so long as the key task managers and Project Managers remain the same as described in the proposal. Staff members not specifically outlined in the below Detailed Cost Proposal must be billed in accordance with the Hourly Rate Schedule provided above, and the cost for their time must not surpass the not-to-exceed dollar amount of the Task they are assigned to, nor the total not to exceed dollar amount of this Agreement. Any modification of senior staffing is subject to County approval prior to any work being performed by the alternative senior staff member.
- i. Consultant shall be able to request modification/reallocation of any of the task budgets outlined in the below Detailed Cost Proposal. Consultant shall provide a written request that briefly describes the reason for the modification and how it benefits the project. Any modification/reallocation in budget between Tasks is subject to County approval prior to any additional work being performed. In no case shall spending exceed the not to exceed dollar amount of this Agreement.

[Detailed Cost Proposal starts on next page]

3.3.3. Detailed Cost Proposal

Task #	Description	Labor Cost										Other Costs			Total Cost		
		DE	SM	SPD	E-V	SRS	E	SD	IM-GPS	CSP	Total Labor Hours	Total Labor Cost	Estimated Expenses % Labor **	Aerial Survey		Laboratory Testing	Total Other Costs
	Rate Per Hour/Unit	\$214	\$201	\$167	\$151	\$151	\$99	\$113	\$190	\$143			2%	ft. 1	ea. 1		
<b>1</b>	<b>Project Management</b>																
1.1	Project Meetings	48									48	\$10,272	\$205				\$10,477
1.2	Bid Support	4			24						28	\$4,480	\$90				\$4,570
1.3	General Management	8									8	\$1,712	\$34				\$1,746
<b>SUBTOTAL TASK 1</b>		<b>60</b>			<b>24</b>						<b>84</b>	<b>\$16,464</b>	<b>\$329</b>				<b>\$16,793</b>
<b>2</b>	<b>Geotechnical*</b>																
2.1	Subsurface Exploration, Testing	2			20						22 \$3,448		\$69		\$3,000	\$3,000	\$6,517
2.2	Stability Analysis	8			6			4			18	\$3,070	\$61				\$3,131
2.3	Geotechnical Investigation Report				20						20	\$3,020	\$60				\$3,080
<b>SUBTOTAL TASK 2</b>		<b>10</b>			<b>46</b>			<b>4</b>			<b>60</b>	<b>\$9,538</b>	<b>\$191</b>		<b>\$3,000</b>	<b>\$3,000</b>	<b>\$12,728</b>
<b>3</b>	<b>Engineering Design Services</b>																
3.1	Aerial Topography			4					8	16	28	\$4,476	\$90	\$4,101		\$4,101	\$8,667
3.2	Conceptual Design	8		16	40		12	40			116	\$16,132	\$323				\$16,455
3.3	60% Design Submittal	4		16	80		48	100			248	\$31,660	\$633				\$32,293
3.4	90% Design Submittal	4		16	100		48	120			288	\$36,940	\$739				\$37,679
3.5	Final Construction Documents	4		16	32			32			84	\$11,976	\$240				\$12,216
3.6	Construction Specifications	8	16		40						64	\$10,968	\$219				\$11,187
3.7	CQA Plan	2	4		16						22	\$3,648	\$73				\$3,721
3.8	Engineer's Cost Estimates	2			24		8				34	\$4,844	\$61				\$3,093
<b>SUBTOTAL TASK 3</b>		<b>32</b>	<b>20</b>	<b>68</b>	<b>332</b>		<b>116</b>	<b>292</b>	<b>8</b>	<b>16</b>	<b>884</b>	<b>\$120,644</b>	<b>\$2,414</b>	<b>\$4,101</b>		<b>\$4,101</b>	<b>\$127,159</b>
<b>4</b>	<b>Design Report</b>																
4.1	Preliminary Design Report (60%)	4			16						20	\$3,272	\$65				\$3,337
4.2	Design Report (90%)	4			24						28	\$4,480	\$90				\$4,570
4.3	Final Design Report	4			32						36	\$5,688	\$114				\$5,802
<b>SUBTOTAL TASK 4</b>		<b>12</b>			<b>72</b>						<b>84</b>	<b>\$13,440</b>	<b>\$269</b>				<b>\$13,709</b>

Task #	Description	Labor Cost Continued											Other Costs Continued			Total Cost	
		DE	SM	SPD	E-V	SRS	E	SD	IM-GPS	CSP	Total Labor Hours	Total Labor Cost	Estimated Expenses % Labor	Aerial Survey	Laboratory Testing		Total Other Costs
	Rate Per Hour/Unit	\$214	\$201	\$167	\$151	\$151	\$99	\$113	\$190	\$143			2%	ft. 1	ea. 1		
<b>5</b>	<b>Permitting</b>																
5.2	Prepare SWFP Amendment	6			8	48		4			66	\$10,192	\$204				\$10,396
5.3	Response to Comments	8			8						16	\$2,920	\$58				\$2,978
<b>SUBTOTAL TASK 5</b>		<b>14</b>			<b>16</b>	<b>48</b>		<b>4</b>			<b>82</b>	<b>\$13,112</b>	<b>\$262</b>				<b>\$13,374</b>
<b>TOTAL HOURS</b>		<b>128</b>	<b>20</b>	<b>68</b>	<b>490</b>	<b>48</b>	<b>116</b>	<b>300</b>	<b>8</b>	<b>16</b>	<b>1194</b>						
<b>TOTAL FEE</b>		<b>\$27,392</b>	<b>\$4,020</b>	<b>\$11,356</b>	<b>\$73,990</b>	<b>\$7,248</b>	<b>\$11,484</b>	<b>\$33,900</b>	<b>\$1,520</b>	<b>\$2,288</b>		<b>\$173,198</b>	<b>\$3,464</b>	<b>\$4,101</b>	<b>\$3,000</b>	<b>\$7,101</b>	<b>\$183,763</b>

\*Prevailing Wage rates apply to any work performed by Consultant under this task that is subject to prevailing wage, as defined in Section D of this Agreement. Certified Payroll records shall be provided based on published prevailing wage determinations for Northern California including Field Soils Tester, Geotechnical Driller, and Field Surveyor under this task.

\*\*Estimated Expenses include mileage, lab fees, per diem, and other reimbursable items. All reimbursable payment requests shall be in accordance with Section 2.2 "Reimbursements" of this Agreement, Exhibit B – Fee Schedule, and the County's Travel Policy.

**EXHIBIT C**

**PROJECT SCHEDULE**

The following is a timeline for which the tasks identified below shall be performed or completed. Schedule assumes that all client data has been delivered before the notice to proceed and that all deliverables and regulatory approvals required are identified in the Scope of Work. Schedule also assumes:

1. County staff shall be able to provide a full review of the submittals within two (2) weeks of receipt.
2. RWQCB review and approval time frame shall be two (2) months.
3. 90% complete design submittal shall be provided to the RWQCB in lieu of each design submittal beginning with 30%.
4. Geotechnical Investigation Report shall be submitted with the 30% submittal.
5. Preliminary Design Report task overlaps the preparation of the Geotechnical Report because information from the Geotechnical Report is required to complete this submittal.
6. Meetings are proposed to occur with each submittal to discuss the contents of the submittal and expedite review.
7. Time frame for the RWQCB review period is assumed based on past experience. Assumed time frame for CalRecycle is based on statutory limits, although for a limited amendment we have experienced this to be as little as two to three months.
8. All schedule items are assumed based on the data presented and costing associated with the scope of work. If additional scope of work is identified, a modified schedule shall be presented at that time to account for additional time if needed.

<b>Project Task Description</b>	<b>Task Duration</b>
Task 1 – Project Management	250 days
Kick Off Meeting	0 days
Task 2 – Geotechnical	40 days
2.1 - Subsurface Exploration and Testing	4 weeks
2.2 - Stability Analysis	2 weeks
2.3 - Geotechnical Investigation Report	2 weeks
Task 3 – Engineering Design Services	120 days
3.1 – Aerial Topography	3 weeks
3.2 – Conceptual Design	4 weeks
Stanislaus County Review	2 weeks
Meeting – Conceptual Design Review	0 days
3.3 – 60% Design Submittal	4 weeks
Stanislaus County Review	2 weeks
Meeting – 60% Design Review	0 days
3.4 – 90% Design Submittal	4 weeks
Stanislaus County Review	2 weeks
Meeting – 90% Design Review	0 days
3.5 – Final Construction Documents	3 weeks
3.6 – Construction Specifications	3 weeks
3.7 – CQA Plan	3 weeks
3.8 – Engineer's Cost Estimate	3 weeks
Task 4 – Design Report	75 days
4.1 – Preliminary Design Report (60%)	6 weeks
4.2 – Design Report (90%)	6 weeks
4.3 – Final Design Report	3 weeks
Submit to Regulators	0 days

Task 5 – Permitting	130 days
Regulatory Review Period	6 months
5.2 – Prepare SWFP Amendment	2 weeks
5.3 Response to Comments	2 weeks
Out for Bid	0 days





DEPARTMENT OF ENVIRONMENTAL RESOURCES  
3800 Cornucopia Way, Suite C, Modesto, CA 95358  
Phone: (209) 525-6700  
Fax: (209) 525-6773

**AMENDMENT NO. 1**

**TO**

**STANISLAUS COUNTY PROFESSIONAL DESIGN SERVICES AGREEMENT  
WITH  
TETRA TECH BAS, INC.**

This Amendment No. 1 to the Professional Design Services Agreement ("Amendment No. 1") by and between the County of Stanislaus ("County") and Tetra Tech, BAS, Inc. ("Consultant") is made and entered into on September 15<sup>th</sup>, 2017.

Whereas, the County and Consultant entered into an Agreement for Professional Design Services dated June 7, 2016, ("the Agreement"); and

Whereas, Paragraph 7.20 - Amendments of the Agreement provides that the Agreement may be amended in writing by mutual consent of both parties; and

Whereas, the County has a need to increase funding to this Agreement by \$8,363, in order to modify the drainage design for the northerly LF 2 Cell 6 berm and perimeter bench; and

Whereas, this amendment is for the mutual benefit of County and Consultant;

Now, therefore, the County and Consultant agree as follows:

1. Section 2 Compensation and Billing, Item 2.1- Compensation of the Agreement is amended to read as follows:

"Consultant shall be paid in accordance with the fee schedule set forth in Exhibit "C", attached hereto and made a part of this Agreement (the "Fee Schedule"). Consultant's compensation shall in no case exceed **One Hundred Ninety Two Thousand, One Hundred Twenty-Six Dollars (\$192,126.00)**. Consultant will be compensated on a time and materials basis, based on the hours worked by the Consultant's employees or subcontractors at the hourly rates specified in the Fee Schedule. The Fee Schedule rates include direct salary costs, employee benefits, and overhead. The rates stated in the Fee Schedule are not adjustable during the term of this Agreement. The County may retain ten percent of all periodic or progress payments made to the Consultant until completion and acceptance of all work tasks and County shall have right to withhold payment from Consultant for any unsatisfactory service until such time service is performed satisfactorily."

2. Exhibit A Scope of Work, Section B Scope of Service, Item 2 "Scope of Work – Tasks" is amended to include the following:

**"2.6 Task 6 – Revised Drainage for Cell 6**

Consultant shall revise the bench to tilt to a channel on the north that shall convey runoff water in the same northeasterly direction as is previously designed, however the channel shall be interrupted by two (possibly three) culvert inlets that shall then convey the water to the existing lower basin channel that shall have a rip-rap energy dissipater. Consultant shall revise all of the construction documents affected by this change and resubmit to the County for review before the design report submission to the RWQCB."

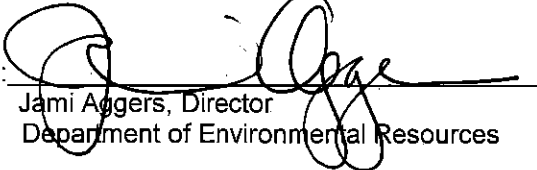
3. Exhibit C Fee Schedule is amended to include the attached Detailed Fee Schedule for Task 6.

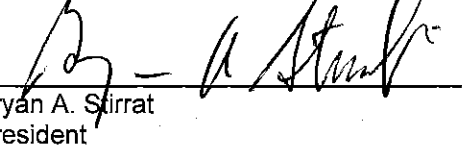
4. Except as stated herein, all other terms and conditions of the Agreement remain unchanged.

In witness whereof, the parties have executed this Amendment on the date written above.

**COUNTY OF STANISLAUS**

**TETRA TECH BAS, INC.**


By:   
Jami Aggers, Director  
Department of Environmental Resources

By:   
Bryan A. Stirrat  
President

"County"

"Consultant"

APPROVED AS TO FORM:  
John P. Doering, County Counsel

By:   
Amanda DeHart, Deputy County Counsel

**EXHIBIT C FEE SCHEDULE ADDITION**

TASK	DE	EV	E	SD	TOTAL LABOR HOURS	TOTAL FEE
	Hr.	Hr.	Hr.	Hr.		
	\$214	\$151	\$99	\$113		
<b>Task 6 – Revised Cell Drainage</b>						
6.1 Project Management	4				4	\$856
6.2 Revise Berm Road Grading	2	12			14	\$2,240
6.3 Revise Earthwork Volumes		1	3		4	\$448
6.4 Update Bid Schedule	1	1	2		4	\$563
6.5 Revise Hydrology/Hydraulic Calculations		1	3		4	\$448
6.6 Revise Drainage Details		6		8	14	\$1,810
6.7 Revise Plan Sheets	3			12	15	\$1,998
<b>Total Hours</b>	<b>10</b>	<b>21</b>	<b>8</b>	<b>20</b>	<b>59</b>	
<b>Total Fee</b>	<b>\$2,140</b>	<b>\$3,171</b>	<b>\$792</b>	<b>\$2,260</b>		<b>\$8,363</b>



DEPARTMENT OF ENVIRONMENTAL RESOURCES  
3800 Cornucopia Way, Suite C, Modesto, CA 95358  
Phone: (209) 525-6700  
Fax: (209) 525-6773

**AMENDMENT NO. 2**  
**TO**  
**STANISLAUS COUNTY PROFESSIONAL DESIGN SERVICES AGREEMENT**  
**WITH**  
**TETRA TECH BAS, INC.**

This Amendment No. 2 to the Professional Design Services Agreement ("Amendment No. 2") by and between the County of Stanislaus ("County") and Tetra Tech, BAS, Inc. ("Consultant") is made and entered into on October 29, 2018.

Whereas, the County and Consultant entered into an Agreement for Professional Design Services dated June 7, 2016, ("the Agreement"); and

Whereas, Paragraph 7.20 - Amendments of the Agreement provides that the Agreement may be amended in writing by mutual consent of both parties; and

Whereas, on June 7, 2016, the Stanislaus County Board of Supervisors approved the Director of the Department of Environmental Resources to sign amendments to the Agreement for an overall not to exceed amount of \$198,913; and

Whereas, on September 15, 2017, the Director of Environmental Resources approved Amendment No. 1 to the Agreement for modifying the drainage design, increasing the Agreement's not to exceed amount to \$192,126; and

Whereas, the County has a need to increase funding to this Agreement by \$6,787, for design engineer support during the upcoming construction of LF 2 Cell 6; and

Whereas, this amendment is for the mutual benefit of County and Consultant;

Now, therefore, the County and Consultant agree as follows:

1. Section 2 Compensation and Billing, Item 2.1- Compensation of the Agreement is amended to read as follows:

"Consultant shall be paid in accordance with the fee schedule set forth in Exhibit "C", attached hereto and made a part of this Agreement (the "Fee Schedule"). Consultant's compensation shall in no case exceed **One Hundred Ninety Eight Thousand, Nine Hundred Thirteen Dollars (\$198,913.00)**. Consultant will be compensated on a time and materials basis, based on the hours worked by the Consultant's employees or subcontractors at the hourly rates specified in the Fee Schedule. The Fee Schedule rates include direct salary costs, employee benefits, and overhead. The rates stated in the Fee Schedule are not adjustable during the term of this Agreement. The County may retain ten percent of all periodic or progress payments made to the Consultant until completion and acceptance of all work tasks and County shall have right to withhold payment from Consultant for any unsatisfactory service until such time service is performed satisfactorily."

2. Exhibit A Scope of Work, Section B Scope of Service, Item 2 "Scope of Work – Tasks" is amended to include the following:

**Task 7 – Construction Support**

Consultant shall assist the County during the construction of LF-2 Cell 6, by reviewing submittals, assisting with answering requests for information, providing design support as needed, and providing other consulting services during construction of the project.

Work under this task shall be completed on an as needed basis, as required and requested by the County.

Work shall be carried out in conformance with the original Agreement. Invoices shall be based on actual time and expenses.

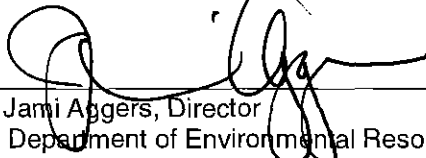
This task shall not exceed \$6,787 without prior authorization by the County through a written amendment to the Agreement.”

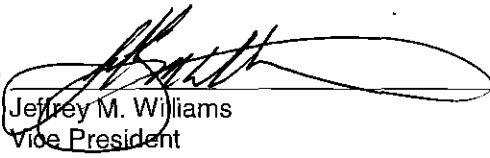
3. Except as stated herein, all other terms and conditions of the Agreement remain unchanged.

In witness whereof, the parties have executed this Amendment on the date written above.

**COUNTY OF STANISLAUS**

**TETRA TECH BAS, INC.**

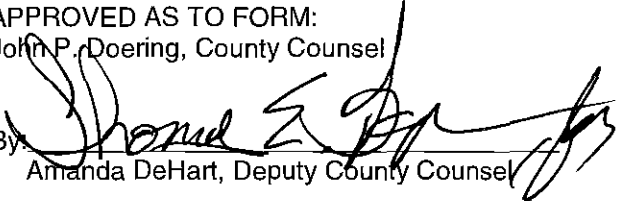
By:   
Jami Aggers, Director  
Department of Environmental Resources

By:   
Jeffrey M. Williams  
Vice President

"County"

"Consultant"

APPROVED AS TO FORM:  
John P. Doering, County Counsel

By:   
Amanda DeHart, Deputy County Counsel