

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

DEPT: Environmental Resources

BOARD AGENDA # *B-6

Urgent Routine

AGENDA DATE January 6, 2015

CEO Concurs with Recommendation YES NO
(Information Attached)

4/5 Vote Required YES NO

SUBJECT:

Approval to Enter into a Master Agreement with Tetra Tech, BAS, Inc., for Professional Design Services at the Geer Road Landfill for Environmental Monitoring, Testing, and Reporting Services

STAFF RECOMMENDATIONS:

1. Approve the Amended and Restated Master Agreement No. A101412AR with Tetra Tech BAS, Inc., for a not to exceed amount of \$3,991,945 for professional design services at the Geer Road Landfill through December 31, 2015.
2. Authorize the Chairman of the Board of Supervisors to sign the Amended and Restated Master Agreement.
3. Authorize the Director of Environmental Resources, or designee, to sign individual Project Authorizations during calendar years 2014 and 2015 providing that the cumulative total does not exceed the contract amount.

(Continued on Page 2)

FISCAL IMPACT:

On December 11, 2012, the Board of Supervisors approved a Master Agreement with Tetra Tech, BAS Inc., for a total not to exceed contract amount of \$3,541,363. This Amended and Restated Master Agreement increases the contract by \$450,582 for additional professional consultant services as follows: development of plans, specifications, and engineers estimates, work plans, construction quality assurance plans, and Health and Safety Plans for the Groundwater Extraction Systems upgrade (\$215,000), the recovery of the costs associated with the June 2013 fire damage so these funds are available for other

(Continued on Page 2)

BOARD ACTION AS FOLLOWS:

No. 2015-13

On motion of Supervisor Monteith, Seconded by Supervisor De Martini

and approved by the following vote,

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

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: CHRISTINE FERRARO TALLMAN, Clerk

File No.

Approval to Enter into a Master Agreement with Tetra Tech, BAS, Inc., for Professional Design Services at the Geer Road Landfill for Environmental Monitoring, Testing, and Reporting Services

STAFF RECOMMENDATIONS (Continued):

4. Authorize the Director of Environmental Resources, or designee, to sign amendments to the Master Agreement for an overall total not to exceed amount of \$4,059,532, which includes a contingency amount of \$67,587.
5. Direct the Auditor-Controller to increase appropriations and revenue as detailed in the attached Budget Journal.

FISCAL IMPACT (Continued):

non-routine work (\$100,686), work reclassified as prevailing wage work (\$109,896), and preparation of an updated Storm Water Pollution Prevention Plan (estimated at \$25,000). Sufficient funds remain within the Master Agreement to cover the typical, routine day-to-day expenses from now through December 31, 2015. An increase in the Geer Road Operating Budget is requested to fund these additional services/costs.

The Geer Road Landfill receives its funding from the Geer Road Closure Fund. Annually, funds are posted to the Geer Road Closure Fund from transfers from the Fink Road Landfill Operating Fund as follows: \$450,000 in original closure, post-closure maintenance funds, \$271,400 which is designated for post-closure maintenance (which began in Fiscal Year 2011 and is adjusted annually for inflation), and \$423,350 annually which is designated for corrective action. These funds are collected from a surcharge on the tipping fees at the Fink Road Landfill. As of November 30, 2014, the remaining cash balance in the Geer Road Closure Fund currently is \$1,661,681 which is adequate to cover these additional expenses.

DISCUSSION:

The Department of Environmental Resources (Department), Landfill Division, maintains and operates the Fink Road and Geer Road Landfills. Some of the maintenance at the Geer Road site is performed by in-house staff, however, specialized services and expertise are needed in the area of environmental monitoring, testing, analyzing, reporting, maintenance (routine and non-routine), repairs, surveying, construction oversight, certain specific non-routine service calls, emergency services, development of plans, specifications, and engineers estimates, work plans, and construction quality assurance and Health and Safety Plans. For those specialized services, the Department has historically hired specialized outside expertise.

The Department, in partnership with the General Services Agency (GSA) issued a Request for Proposals (RFP) for environmental services for each Landfill on May 31, 2012. The RFP period closed on August 16, 2012. Tetra Tech BAS, Inc. (Tetra Tech), the highest scoring bidder for the Geer Road site, was issued a letter of Intent to Award by the GSA Purchasing Division. The Master Agreement was approved by the Board of Supervisors and was fully executed with a start date of January 1, 2013. The Agreement included sufficient funds to cover the normal, routine items which were anticipated for a three-year period through December 31, 2015, emergency and/or non-routine maintenance which may become necessary, and \$100,000 for implementation of the new Report of Waste Discharge.

The current maximum not to exceed contract amount for the three-year period, including contingency is \$3,541,363. The Agreement allows the Board of Supervisors to consider up to

Approval to Enter into a Master Agreement with Tetra Tech, BAS, Inc., for Professional Design Services at the Geer Road Landfill for Environmental Monitoring, Testing, and Reporting Services

two, one-year extensions to the Agreement at the conclusion of the calendar years 2015 and 2016 for a maximum contract length of December 31, 2017.

The original Agreement did not include a provision for payment of prevailing wage for certain work under the Agreement. This Amended and Restated Agreement provides for prevailing wage work for maintenance (routine and non-routine), repairs, surveying, construction oversight, certain specific non-routine service calls, and emergency services to be provided by Tetra Tech. While the Director of Environmental Resources has authorization to sign amendments to the contract, because of the complexity and large total contract value, staff felt it was advisable to bring the Amended and Restated Master Agreement back to the Board for its consideration. The Amended and Restated Master Agreement, as well as the Amended and Restated Project Authorizations for both routine and non-routine work, are attached for reference.

POLICY ISSUE:

This action is consistent with the Board's priorities of A Safe Community, A Healthy Community, and A Well Planned Infrastructure System. It allows the County to complete another critical step in meeting the requirements of the Regional Water Quality Control Board related to the April 2011 Cease and Desist Order; the regulatory agency with primary oversight of the Geer Road Landfill. In addition, it supports the Department of Environmental Resource'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 IMPACTS:

The Department of Environmental Resources staff will oversee the work related to this Master Agreement.

CONTACT PERSON:

Jami Aggers, Director of Environmental Resources Telephone: 209-525-6770

ATTACHMENTS:

1. Amended and Restated Master Agreement A101412AR with Tetra Tech BAS, Inc.

Database
Balance Type
Data Access Set

FMSDBPRD.CO.STANISLAUS.CA.US.PROD
Budget
County of Stanislaus

Ledger
Budget
Category
Source
Currency
Period
Batch Name
Journal Name
Journal Description
Journal Reference
Organization
Chart Of Accounts

* List - Text County of Stanislaus
List - Text LEGAL BUDGET
* List - Text Budget
* List - Text DER AJH
* List - Text USD
List - Text JAN-15
Text
Text ER AJH JV20991 12/12/14
Text Consultant work by Tetra Tech
Text
List - Text Stanislaus Budget Org
Accounting Flexfield

Upl	Fund (4 char)	Org (7 char)	Account (5 char)	GL Project (7 char)	Location (6 char)	Misc. (6 char)	Other (5 char)	Debit incr appropriations decr est revenue * Number	Credit decr appropriations incr est revenue * Number	Line Description Text	
		4031	0041200	46600	0000000	000000	000000		450,582.00	Interfund Trans from Post Close	
		4031	0041200	63280	0000000	000000	000000	450,582.00		Increase Contracts	
		6016	0063100	85850	0000000	000000	000000	450,582.00		Operating Transfer Out	
Totals:									901,164.00	450,582.00	

Tip: This is not the end of the Template. Unprotect the sheet and insert as many rows as needed.

Explanation: Transfer additional revenue from Geer Post Closure (Fund 6016) to Geer Road Landfill Operating Fund.
Increase Expenses for Contracts by \$450,582 for Tetra Tech amended contract going to BOS 01/06/14

Requesting Department		CEO	Data Entry	Auditors Office Only	
Arlene Hamrick	Jami Aggers	<i>[Signature]</i>			
Prepared by	Approved By	CEO	Keyed by	Prepared By	Approved By
12/12/2014	12/12/2014	12/17/14			12/15/14
Date	Date	Date	Date	Date	Date



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

AMENDED AND RESTATED MASTER AGREEMENT
FOR
PROFESSIONAL DESIGN SERVICES AT GEER ROAD LANDFILL
TETRA TECH BAS, INC.

This Amended and Restated Agreement for Professional Design Services Master Agreement (the "Agreement") is made and entered into by and between the County of Stanislaus ("County") and Tetra Tech BAS, Inc., hereinafter referred to as ("Consultant").

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

RECITALS

WHEREAS, the County has a need for professional consultant services involving routine testing, monitoring, sampling, and reporting at the County's Geer Road Landfill; and

WHEREAS, the County at times has a need for professional consultant services involving the development of plans, specifications, and engineers estimates (PS&E), work plans, construction quality assurance plans (CQA) and Health and Safety Plans, to comply with the requirements of the regulating agencies as it pertains to the Geer Road Landfill; and

WHEREAS, the Consultant is specially trained, experienced and competent to perform and has agreed to provide such services; and

WHEREAS, as of December 11, 2012, (the "Effective Date") the County and Consultant have entered into a certain Agreement relating to the provision of monitoring, testing, sampling, and reporting, services (the "Original Agreement"); and

WHEREAS, the Original Agreement amount of \$3,079,446, was amended by Amendment 1, Amendment 2 and Amendment 3 to cumulatively increase the not to exceed Agreement amount to \$3,541,363; and

WHEREAS, the County has a need for Prevailing Wage Work for maintenance (routine and non-routine), repairs, surveying, construction oversight, certain specific non-routine service calls and emergency services and the Original Agreement failed to recognize that work requiring the payment of Prevailing Wage would be required under the Agreement; and

WHEREAS, the County has a need to increase the not to exceed Agreement amount by \$450,582 to cover the following: \$100,686 to cover the costs for emergency work completed as a result of fire damage and to allow the Consultant to perform prevailing wage services, \$215,000 for the Groundwater Extraction Systems (GWETS) verification and testing; \$109,896 to cover prevailing wage work; and an estimated \$25,000 for an updated Storm Water Pollution Prevention Plan (SWPPP); and

WHEREAS, the County has a need to delete Exhibits "A" and "B" in the Original Agreement and consolidate in Exhibit 1 and Exhibit "C" of this Amended and Restated Agreement; and

WHEREAS, both parties desire to Amend and Restate the Agreement to add the Prevailing Wage services; and

NOW, THEREFORE, in the most efficient manner, the Original Agreement is hereby amended and restated and in consideration of the mutual promises, covenants, terms and conditions hereinafter contained, the parties hereby agree as follows:

1. DEFINITIONS

1. DEFINITIONS

1.1 Maintenance: For the purpose of this Agreement maintenance is defined as:

1.1.1. Title 8, Section 16000, Chapter 8, Subchapter 3, Article 1 of the California Code of Regulations charged by the Department of Industrial Relations, defines maintenance to include: (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 is defined as "public works" subject to prevailing wage.

1.2 Routine Maintenance: For the purpose of this Agreement routine maintenance includes:

1.2.1. Routine, reoccurring and usual work such as, cleaning, keeping the burner and manual air dampers properly adjusted, keeping flare drained, changing oil, replacing small filters, clearing of the pneumatic line or adjustment of the pump regulator at the surface etc., which is performed for the preservation, protection and keeping of the 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.

1.3 Non-Routine Scheduled Maintenance: For the purpose of this Agreement non-routine scheduled maintenance, which shall not exceed \$45,000.00, consists of corrective repairs or maintenance work identified during the routine operations, maintenance and monitoring inspections and site visits. The work shall consist of, but is not limited to, items such as repair of broken valves, replacement of torn flex hoses and repair of damaged conveyance piping and relocation of header due to landfilling operations. This work is essential for proper system operation; however, it is considered the type of work that can be scheduled to allow for procurement of materials, equipment and scheduling of personnel. Non-routine scheduled maintenance shall be performed only after receipt of a prior written project authorization from the County. The following list presents examples of activities expected to be non-routine occurrences:

- 1.3.1 Thermocouple replacement;
- 1.3.2 Blower belt replacement;
- 1.3.3 UV scanner replacement;
- 1.3.4 Flare refractory repair or replacement;
- 1.3.5 Flare Coating repair;
- 1.3.6 Air Compressor equipment repairs;
- 1.3.7 Well head replacement;
- 1.3.8 Well valve replacement;
- 1.3.9 Well extension, abandonment and capping;
- 1.3.10 Installation of temporary condensate tanks;
- 1.3.11 Replacement of Flex Hose(s);
- 1.3.12 Well service removal and re-installation;
- 1.3.13 Header removal and re-installation;
- 1.3.14 Knockout vessel demister pad cleaning;
- 1.3.15 Equipment removal, installation and replacement; and
- 1.3.16 Schematic sketches for cost estimating.

1.4 Non-Routine Unscheduled Emergency Services: For the purpose of this Agreement non-routine unscheduled emergency services, which shall not exceed \$45,000.00, is defined as a sudden, unexpected occurrence that poses a clear and imminent danger, requiring immediate action to prevent or mitigate the loss or impairment of life, health, property, or essential public services which may require immediate response. Consultant shall respond to these conditions, on an as-needed basis. This type of event shall include, but not be limited to the following:

- 1.4.1 Call out by the automatic dialing system;
- 1.4.2 Flare station shut-down events;
- 1.4.3 Surging vacuum; and
- 1.4.4 Repair of landfill gas and condensate system piping breaks or separations causing the emergency shutdown of the LFG.

1.5 Public Project: For the purpose of this Agreement Public Project, as defined in the Public Professional Services Master Agreement Form

Contracting Code Section 22002 (c) (1), means construction, reconstruction, erection, alteration, renovation, improvement, demolition, and repair work involving any publicly owned, leased, or operated facility. It shall be unlawful to split or separate into smaller work orders or projects any project for the purpose of evading the provisions of Article 22033 of the Public Contracting Code requiring work to be competitively bid.

1.5.1 Public Projects Forty-five Thousand dollars (\$45,000) or more are not to be performed under this Agreement in accordance with the State of California Public Contract Code and will be let by a separate contract.

1.6 Prevailing Wage: Prevailing Wage Laws as defined in Section 1720 of the California Labor Code, et seq. and 1770 et seq. as well as California Code of Regulations, Title 8, Section 16000 et seq. ("Prevailing Wage Laws"), require the payment of prevailing wage rates and the performance of other requirements on certain "public work" and "maintenance" projects. "Public work" is defined in Section 1720 (a) of the California Labor Code as construction, alteration, demolition, installation, or repair work done under contract and paid for in whole or in part out of public funds. This shall include work performed during the design and preconstruction phase of construction including, but not limited to, inspection and land surveying work.

1.7 Non-Routine Service Calls: For the purpose of this Agreement non-routine service calls, which shall not exceed \$45,000.00 and which is not considered a Public Project as defined in Section 1.5 of this Agreement, are as-needed calls placed against this Agreement by the County. The County shall issue a single Project Authorization for non-routine service calls. It is expressly understood that the tasks (service calls) to which the Consultant is asked to respond to, shall be on an "as-needed" basis. As each scheduled service call is identified, the Consultant shall prepare a detailed scope of work to be accomplished, list of deliverables, schedule for completion, and a not-to-exceed detailed cost proposal for its completion and present to the County for review and written approval prior to commencement of the proposed work. These services may be paid on a time and materials basis or lump sum basis as mutually agreed by the County. The County's project authorization number shall be submitted on the invoice in order for payment to be made.

2. PROFESSIONAL SERVICES TO BE PROVIDED BY CONSULTANT

2.1. Scope of Services: Consultant shall provide the professional services described in Exhibit "1" attached hereto and incorporated herein by reference. The Consultant shall furnish to the County upon receipt of the County's written Project Authorization, Exhibit "D" - Sample, those services and work set forth in the "Project Authorization – Scope of Work" separately approved for each project or task being provided by the Consultant, which Scope of Work are, by this reference made a part hereof. Each project added to and to be performed under this Agreement shall be separately approved by the parties. A Project Authorization issued by the Department of Environmental Resources Director, shall approve each project where the cost of the Work or Services does not exceed the maximum "not to exceed" amount for this Master Agreement.

2.2. 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.

2.3. 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 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, Section 16000, Article 1 is subject to payment of prevailing wage pursuant to Labor Code section 1720.

2.3.1. Pursuant to Labor Code Section 1771, certain work under this Agreement 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 Professional Services Master Agreement Form 3
(Rev. 11.1.13 TEB)

the Consultant shall pay all workers performing work subject to prevailing wage, 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.

2.3.2. 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 reach 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; Statistic & Research (415/972-8620) or the Department of Transportation (916/445-3520).

2.3.3. 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, officers, 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. In addition, the provisions of Sections 1720, 1770, 1771, 1773, 1774, 1775, 1776, 1777, 1778, 1813 and 1815 of the Labor Code shall be complied with.

2.3.4. 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.

2.3.5. Payroll Records: Pursuant to the provisions of Section 1776 of the Labor Code:

2.3.5.1. 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.

2.3.5.2. 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.

2.3.5.3. Consultant shall file a certified copy of said payroll records with County within ten (10) days after receipt of a written request therefore from County.

2.3.5.4. 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.

2.3.5.5. 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.

2.3.5.6. In the event of noncompliance with the requirements of this Clause of Labor Code Section 1776, Consultant shall have ten (10) days in which to comply subsequent to receipt of written notice specifying in what respects Consultant must comply. Should noncompliance exist after said ten (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 Consultant for completed task orders.

2.4. Representations: Consultant represents that it has reviewed this Agreement 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 to each Project Authorization. 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.

2.5. 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.

2.6. 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.

2.7. 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.

2.8. Delegation and Assignment: This is a Professional Design 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.

3. COMPENSATION AND BILLING

3.1. Compensation: For each task or project authorization let under this Agreement 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 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. Fee Schedule rates shall include direct salary costs, employee benefits, and overhead. The rates stated in the Fee Schedule are not adjustable during the term of this Agreement. Consultant's compensation under this Amended and Restated Master Agreement shall in no case exceed **Three Million Nine Hundred Ninety-One Thousand Nine Hundred and Forty-Five Dollars (\$3,991,945)**. This Amended and Restated Master Agreement's not to exceed amount includes the Original Agreement amount as amended by Amendment 1 and Amendment 2 to the Original Agreement. The County may retain ten percent (10%) 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.

3.2. Reimbursements: In addition to the aforementioned fees, Consultant will be reimbursed for any expenses specifically set forth in a Project 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. The County shall not pay for any item of overhead such as telephone, cellular phone, facsimile, postage, etc., unless otherwise approved in writing. All requests for reimbursement shall be accompanied by a copy of the original invoice.

3.3. Additional Services: Consultant shall not receive compensation for any services provided outside the scope of services specified in Exhibit 1 and specified in each Project Scope of Work unless the County, prior to Consultant performing the additional services, approves such additional services in writing by means of an amendment. It is specifically understood that oral requests and/or approvals of such additional services or additional compensation shall be barred and are unenforceable.

3.4. 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.

3.5. 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 three (3) years from the termination of this Agreement.

4. TIME OF PERFORMANCE

4.1. 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 for each separately approved Project Authorization. Said services shall be performed in strict compliance with the Project Schedule approved by County as set forth in each Project Scope of Work. Each 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.

4.2. 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.

5. TERM OF CONTRACT AND TERMINATION

5.1. Term: This Agreement shall commence January 1, 2013, and continue until **December 31, 2015**, or until all work on each Project Authorization let during this period is completed, unless previously terminated as provided herein or as otherwise agreed to in writing by the parties.

5.2. Contract Extension: If mutually agreeable to both parties, this Contract may be extended on a year-to-year basis, however, in no case shall the renewal extend beyond **December 31, 2017**, two (2) years from the expiration date of the original Agreement.

5.3. 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.

5.4. 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 "C". 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.

5.5. 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.

6. INSURANCE REQUIREMENTS

6.1. 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 Four Million Dollars (\$4,000,000.00), 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 Two Million Dollars (\$2,000,000.00), 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 three years following Final Completion of the Project.

6.2. 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;

(d) Automobiles owned, leased, hired or borrowed by the Consultant; and

(e) For General Liability, Automobile Liability and 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.

6.3. 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.

6.4. 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.

6.5. 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.

6.6. Primary Insurance: The Consultant's insurance coverage shall be endorsed to 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.

6.7. 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 three (3) years after substantial completion of the project to the extent it is commercially available at reasonable rates.

6.8. 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.

6.9. 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.

7. INDEMNIFICATION

7.1. 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.

7.2. 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.

7.3. Duty to Cooperate: Each party shall notify the other party within ten 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.

7.4. 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.

7.5. The foregoing provisions in this section "Indemnification" shall survive the term and termination of this Agreement.

8. GENERAL PROVISIONS

8.1. 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.

8.2. **Representatives:** The Director of the Stanislaus County Department of Environmental Resources, 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.

8.3. **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.

8.4. **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: Bryan A. Stirrat, P.E.
- b. Lead/Manager: Greg Acosta, P.E.

8.5. **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.

8.6. **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: Susan Garcia, C.P.M.
3800 Cornucopia Way, Suite C
Modesto, California 95358

If to Consultant:
Tetra Tech BAS, Inc.
1360 Valley Vista Drive
Diamond Bar, CA 91765
Attn: Bryan A. Stirrat, PE

8.7. **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.

8.8. **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.

8.9. **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's obligation to perform all other obligations to be performed by Consultant hereunder for the term of this Agreement.

8.10. **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.

8.11. 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.

8.12. 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.

8.13. 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.

8.14. 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.

8.15. 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.

8.16. 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.

8.17. 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.

8.18. 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.

8.19. 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.

8.20. Amendments: This Agreement may be amended only by a written Amendment executed by the parties hereto or their respective successors and assigns.

8.21. 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.

8.22. 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.

8.23. 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.

8.24. 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:

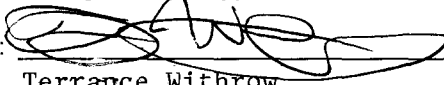
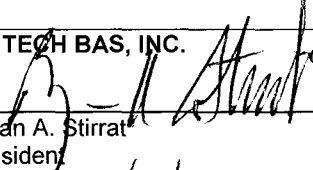
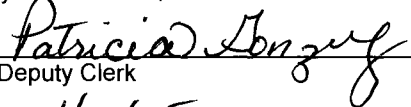
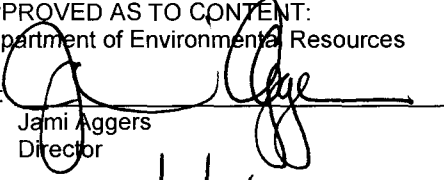
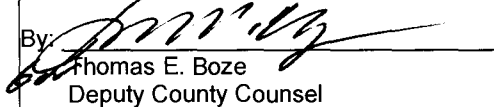
<p>COUNTY OF STANISLAUS</p> <p>By:  Terrance Withrow Chair of The Board of Supervisors</p> <p>Date: <u>1/6/15</u></p> <p>"County"</p>	<p>TETRA TECH BAS, INC.</p> <p>By:  Bryan A. Stirrat President</p> <p>Date: <u>12/10/14</u></p> <p>"Consultant"</p>
<p>ATTEST: Christine Ferraro Tallman Clerk of the Board of Supervisors of the County of Stanislaus, State of California</p> <p>By:  Patricia Bongz Deputy Clerk</p> <p>Date: <u>1/6/15</u></p>	
<p>APPROVED AS TO CONTENT: Department of Environmental Resources</p> <p>By:  Jami Aggers Director</p> <p>Date: <u>12/12/14</u></p>	
<p>APPROVED AS TO FORM: John P. Doering, County Counsel</p> <p>By:  Thomas E. Boze Deputy County Counsel</p> <p>Date: <u>12/12/14</u></p>	

EXHIBIT 1

AMENDED AND RESTATED EXHIBITS "A" AND "B"

A. BACKGROUND

Stanislaus County and the City of Modesto own the closed Geer Road Landfill which is located 8.0 miles east of Modesto in Stanislaus County, CA. The site is operated by the Stanislaus County Department of Environmental Resources and lies near the eastern edge of the San Joaquin Valley adjacent to the Tuolumne River in the southeast corner of Section 34, Township 3 South, Range 10 East, and the northeast corner of Section 3, Township 4 South, Range 10 East, Mount Diablo Base and Meridian. The center of the site is located at approximately latitude 37° 34.32' and longitude 120° 51.05'.

The site consists of a single, unlined Class III landfill and a sedimentation pond. The facility started operations in November 1970 but has not received wastes since July 1990. The Regional Water Quality Control Board (RWQCB), Central Valley Region, approved final closure construction in July 1996. The 168-acre site comprises Assessor's Parcel Numbers 009-029-009, 009-029-012, and 018-003-021. It is estimated that 4.5 million tons of waste are in place at this site.

The RWQCB adopted Waste Discharge Requirements (WDR) Order Number R5-2009-0051 (including a Monitoring and Reporting Program [MRP]) for the site on April 24, 2009. In April 2011, RWQCB adopted a Cease and Desist Order (CDO) R5-2011-0021 and Revised Monitoring Program R5-2011-0022 for the Geer Road Landfill. The CDO requires the County to submit several work plans and reports based on an outlined compliance schedule culminating with the submittal of a Plume Investigation Report and Revised Report of Waste Discharge by December 30, 2012 and 5-Year COC Sampling Results by January 31, 2013.

Groundwater has been monitored at the site since 1987 and impacts in the form of volatile organic compounds (VOCs) have been known to exist at the site since the mid-1980s. Since that time, actions taken to address the impacts have included closing and capping the landfill (1995), installation and operation of a landfill gas (LFG) extraction and flare system (1992 [northern portion] and 1995 [southern portion]), and installation of the LFG system to include extraction points in the unsaturated zone beneath the landfill (2009) which the County may discontinue vacuum on in the near future if the RWQCB concurs with this recommendation; and installation and operation of a groundwater extraction and treatment system (GWETS, in 1993 for VOC mitigation).

Groundwater monitoring wells have been installed at the site over time to assess groundwater conditions in and around the site to a current total of 52 wells. 32 of these wells are designated as "shallow" wells which are typically screened across the static water level of the first saturated zone and are indicated with an "S" in the well number. The remaining 20 wells are designated as "deep" wells which are typically screened at depths of 30-50 feet below the static water level and are indicated with a "D" in the well number. Other required off-site monitoring points listed in the MRP are two (2) domestic wells located on the adjacent privately owned (Streeter) property and two (2) wells located across Geer Road in the Pinewood Meadows Mobile Home Park.

Per the Cease and Desist Order, the County must fully optimize the existing landfill gas (LFG) collection system. The County installed Phase 1 upgrades to the LFG System in August/September 2011 which restored proper vacuum to the system. The County began a second phase (Phase 2) of repairs and upgrades to the LFG System beginning in July 2012, which upgraded the Flare Station and provided better control leachate management. Phase II will be not be part of this Agreement. After the Phase 2 repairs and upgrades were completed, the County's consultant, Tetra Tech BAS evaluated the system and made a recommendation as to whether a system expansion would be necessary. This recommendation was incorporated into a series of reports that were due to the Regional Water Quality Control Board (RWQCB) on or before December 31, 2012.

As of January 1, 2013, a network of LFG extraction wells (EW) exists at the site as follows: EW-1 through 11; EW-12 through 16, each having both S and D; EW-17 through 63; removal wells (RW) RW-1 through 3, both S and D; RW-4S; RW-5 and 6, both S and D; RW-7S; RW-8S; RW-9D; RW-10S; RW-11 and 12, both S and D; RW-13S; RW-14 S and D; RW-15S; and RW-16 through 20, for a total of 96 wells. The following gas probes (GP) also exist, some of which are designated "middle" or "mid-point between S and D" (M): GP-1 and 2, S, D & M; GP-3 through 5, both S and D; GP-6A through 14A; GP-17 through 19, both S and D; GP-20A through 24A; GP-25 through 38, S, D & M; and GP-41, S, D & M, for a total of 77 probes.

B. SCOPE OF WORK

1. Consultant shall be responsible for ensuring that the County maintains compliance with all Federal, State and local requirements, including California's Greenhouse Gas Legislation (Assembly Bill 32) and associated Professional Services Master Agreement Form

Landfill Methane Rule, for environmental monitoring, testing, and reporting services at the County's Geer Road Landfill. In addition, the Consultant shall be responsible for ensuring that the County maintains compliance with the following permits: WDR Order Number R5-2009-0051 (including a Monitoring and Reporting Program [MRP]), CDO R5-2011-0021 and Revised Monitoring Program R5-2011-0022 and the State Water Resources Control Board's General Permit to Discharge Stormwater; i.e., the National Pollutant Discharge Elimination System (NPDES) Permit, however, this list is not necessarily all-inclusive.

2. For any of the Work performed under this Agreement falling under Section 1 and Section 2, Item 2.3 et seq., of this Agreement, Consultant shall meet all Prevailing Wage requirements. Work that falls under Section 1.5 of this Agreement shall not be performed under this Agreement.

3. Consultant shall provide all of the labor, material, tools, equipment, supplies, and supervision necessary to perform, at the Geer Road Landfill, the following services as described and authorized in each individual Project Authorization issued against this Amended and Restated Master Agreement:

- a. Environmental monitoring, sampling testing/analyzing and reporting services which include:
 - i. Leachate Monitoring;
 - ii. Groundwater Monitoring, Sampling and Testing/Analyzing;
 - iii. Groundwater Elevations and Flow;
 - iv. Surface Water Monitoring, Sampling and Testing Analyzing;
 - v. Sedimentation Basin and Tuolumne River Monitoring, Sampling and Testing/Analyzing;
 - vi. GWETS Monitoring;
 - vii. Landfill Gas Monitoring including:
 - 1. Landfill Gas Plant Monitoring;
 - 2. Landfill Gas Well Monitoring;
 - 3. Perimeter Monitoring Probe Monitoring;
 - 4. Semi-Annual Plant Monitoring, Sampling and Analysis;
 - 5. Operation Run Time;
 - 6. Controlled Landfill Gas Documentation
 - viii. Resampling;
 - ix. Monitoring Reports;
 - x. NPDES Storm Water Pollution Prevention;
 - xi. Surface Emissions Monitoring, Sampling and Analysis;
 - xii. Leak Monitoring at the Blower Flare Station (BFS);
 - xiii. Non-Methane Organic Compound (NMOC) Testing;
 - xiv. EPA and LMR Greenhouse Gas Annual Report;
 - xv. Source Testing and Methane;
 - xvi. Title V Semi-Annual Reports of Required Monitoring (RRM) and Annual Compliance Certification (COC);
 - xvii. Landfill Gas Extraction System Performance Monitoring;
 - xviii. Health and Safety Plan;
 - xix. Regulatory Meetings;
 - xx. Verifying all environmental monitoring requirements required by the permits and all applicable statutory/regulatory requirements. Where applicable tasks that are and will continue to be performed by the County personnel shall be noted in appropriate Project Authorization issued against the Amended and Restated Agreement; and
 - xxi. Oversight and coordination of the entirety of the environmental monitoring program for the Geer Road Landfill.
- b. Operations and maintenance which include the following minimum list of scope of services:
 - i. It is the Consultant's responsibility to verify all permit requirements and all applicable statutory/regulatory requirements. Where applicable, tasks that are and will continue to be performed by County personnel are so noted. All other tasks shall be provided by the Consultant;
 - ii. The following list of operations and maintenance requirements is not necessarily all-inclusive. The Consultant shall operate and maintain the following:
 - 1. Flare station;
 - 2. Landfill gas collection and control system;
 - 3. Groundwater pump and treatment facility to help control LFG migration and to maintain groundwater quality; and
 - 4. GWETS Operations and Maintenance.
 - iii. Maintenance as defined in Definition Section 1.1 and 1.2 of the Amended and Restated

Master Agreement;

- iv. Consultant shall exercise generally accepted operation, maintenance and repair practices with respect to the operational goals established by the Consultant's system design engineer, San Joaquin Valley Air Pollution Control District (APCD) and with the rules and regulations of applicable Federal, State and local agencies, and other regulatory agencies for control of subsurface LFG migration, surface emissions, and groundwater pump and treatment system operation and maintenance, as well as, environmental and regulatory reporting requirements. Consultant shall list the frequency at which they propose to provide the following services in accordance with permit and statutory/regulatory requirements:
 - 1. Operation and maintenance (O&M) of the LFG extraction wells to maintain compliance with all site-specific permits;
 - 2. Proper maintenance and repair of equipment; and
 - 3. Creation and retention of calibration and maintenance records:
 - a. Total flow and flare exhaust temperature adjustments not to exceed permitted maximum (site specific);
 - b. Calibration of the total flow metering equipment (site specific);
 - c. Maintenance of the gas collection system and flare equipment to prevent LFG leaks;
 - d. Operation and maintenance of the LFG, condensate, and groundwater collection systems (in coordination with the County) to prevent release of condensate resulting in discharge of odors, toxic air contamination, or reactive organic compounds to the atmosphere;
 - e. Operation and maintenance of the LFG system such that LFG emissions (as methane) do not exceed statutory/regulatory requirements at any surface point (with consideration to permit exceptions);
 - f. Operation of the LFG systems to minimize air intrusion into landfill;
 - g. Operation of the groundwater pumping system to maximize total flow and treatment;
 - h. Maintenance of flare exit gas temperature according to permitted requirements;
 - i. Maintenance of the flare stack thermocouple in good working condition;
 - j. Maintenance of the extraction wellhead shut-off valves in good working condition;
 - k. Operation of the LFG collection system such that methane gas levels in the perimeter monitoring probes and in on-site structures do not exceed statutory/regulatory requirements (with consideration to permit exceptions); and
 - l. Action to protect human health.

- c. Additional Services that may be required at the County's request are as follows:
 - i. Additional environmental monitoring, testing, reporting and related services may be required at the County's request;
 - ii. Construction Management and Construction Quality Assurance services;
 - iii. Preparation of complete sets of construction drawings including wet stamped and signed, plans, specifications, engineering estimates and material associated with the Work plans for the Geer Road Landfill closure;
 - iv. Minimal assistance with Bid preparation, including but not limited to bid review, response to request for information, addenda input, participation at pre bid conference, and review and input on bid responses received;
 - v. Non-Routine Emergency Services as defined in Section 1.4 of the Amended and Restated Master Agreement. Work that falls under Section 1.5 of this Agreement shall not be performed under the Amended and Restated Master Agreement.
 - vi. Non-Routine Scheduled Maintenance as defined in Section 1.3 of the Amended and Restated Master Agreement. Work that falls under Section 1.5 of the Amended and Restated Master Agreement shall not be performed under this Agreement;
 - vii. Non-Routine Service Calls as defined in Section 1.7 of the Amended and Restated Master Agreement. Work that falls under Section 1.5 of the Amended and Restated Master Agreement shall not be performed under this Agreement; and
 - viii. General Technical and Administrative Requirements to address the following technical and administrative aspects of monitoring and reporting.

C. 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.

D. SAFETY REQUIREMENTS

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

E. MULTI-YEAR CONTRACT

If funds are not appropriated or otherwise made available to support continuation in any fiscal year succeeding the first fiscal year, the County shall have the right to terminate this contract and the Consultant is not entitled to recover any costs not incurred prior to termination.

F. FINES

Should the County be fined by a regulatory agency as a result of the Consultant's failure to: meet any of the monitoring requirements, meet any scheduled date for required reports or testing, and/or to report any new releases of groundwater contamination to the County within 24 hours of discovery, the Consultant shall reimburse the County the full amount of all fines within 30 days after demand for payment is made by the County.

EXHIBIT "C"
AMENDED AND RESTATED
FEE SCHEDULE

1. Compensation

The Consultant shall be compensated for the services provided under the Agreement as follows:

1.1 Payment and Invoicing

- 1.1.1 The terms of payment are Net 30 days after approval of the invoice.
- 1.1.2 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 travel reimbursement and copies of all receipts must accompany the invoice. Travel expenses shall be reimbursed in accordance with the County's travel policy which is incorporated herein by reference. Consultant shall be compensated for services rendered and accepted under this Agreement and shall be paid monthly, in arrears, on a time and material basis not to exceed the per task totals for work performed and services provided.
- 1.1.3 Maintenance and Bi-Weekly Submission of Certified Payroll Records. The Consultant and each of its Subcontractors 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 Subcontractors shall maintain and submit Certified Payroll Records on a bi-weekly basis. No later than the 5:00 P.M. on each Monday during the Work, the Consultant shall submit Certified Payroll Records for the Consultant and its Subcontractors 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 Landfill. 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 Subcontractor's strict compliance with requirements of the LCP relating to maintenance and submission of Certified Payroll Records. The Consultant's submittal of bi-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.
- 1.1.4 Invoices shall be mailed or delivered to the County department indicated below. The remit to address is:
 - Stanislaus County
 - Department of Environmental Resources Landfill
 - Attention: Jami Aggers
 - 3800 Cornucopia Way, Suite C
 - Modesto, California 95358

1.2 Prevailing Wage Rates

The below prevailing wage rates apply to any work performed by the Consultant that is defined in Section 1 et seq., and Section 2, Item 2.3 et seq., of the this Agreement.

CATEGORY	*REGULAR HOURLY RATE	*OVERTIME HOURLY RATE	*HOLIDAY/ DOUBLE TIME HOURLY RATE
Operating Engineer (Heavy and Highway Work)	\$125	\$169	\$207
Pipe Fusion Technician	\$118	\$160	\$195
Senior Electrician	\$135	\$183	\$223
Junior Electrician	\$118	\$160	\$195
Technician	\$96	\$130	\$159
Senior Technician	\$112	\$152	\$185
Equipment Operator	\$125	\$169	\$207
Surveyor	\$125	\$169	\$207
Chief of Survey Parties (CSP)	\$142	\$192	\$235
3-Man Survey Party (SP-3M)	\$312	\$422	\$515
2-Man Survey Party (SP-2M)	\$258	\$349	\$426
1-Man Survey Party with GPS	\$198	\$268	\$327

*These rates are based on published prevailing wage determinations for Northern California including "For Commercial Building, Highway, Heavy Construction and Dredging Project" – Craft: # Operating Engineer (Heavy and Highway Work) Area 1, Group 4; Craft (Laborer and Related Classifications): Area 2, Group 1 (Pipe layer and pressure pipe tester); and Operating Engineers (Area 2, Group 3), and the rates are all inclusive of GS&A, overhead and profit.

1.3 Professional Service Fee Schedule

(Effective January 1, 2013, through December 31, 2015). Rates include overhead, administration, and profit.

Title	Hourly Billable Rate
Principal (P)	\$264
Principal Engineer (PRE)	\$225
Principal Solid Waste Planner	\$214
Division Engineer (DE)	\$213
Principal Administrator (PA)	\$204
Senior Project Manager (SM)/ Chief Engineer (CE)	\$198
Project Manager (PM)	\$187
Project Engineer (PE)/Administrator (PAD)	\$167
Engineer V (E-V)	\$152
Engineer IV (E-IV)	\$137
Engineer III (E-III)	\$129
Engineer II (E-II)	\$122
Engineer I (E-I)	\$103
Engineer (E)	\$ 97
Senior Project Designer (SPD)	\$162
Project Designer (PD)	\$149
Senior Designer (SDD)	\$137
CAD Design (CD)	\$133
Designer (DD)	\$128
Senior Drafter (SD)	\$118
Drafter (D)	\$103
Senior CADD Operator (SCO)	\$ 97

1.3 Professional Service Fee Schedule (continued)

(Effective January 1, 2013, through December 31, 2015). Rates include overhead, administration, and profit.

Title	Hourly Billable Rate
CADD Operator (CO)	\$ 80
Regulatory compliance Manager (RCM)	\$157
Senior Regulatory Compliance Specialist (SRS)	\$147
Regulatory Compliance Specialist (RS)	\$124
Senior Environmental Scientist (SNS)	\$156
Senior Environmental Specialist (SES)	\$136
Environmental Specialist II (ES-II)	\$125
Environmental Specialist I (ES-I)	\$109
Environmental Specialist (ES)	\$ 98
Estimator (E)/Specification Writer (SW)	\$130
Landscape Architect (LA)	\$127
Project Accountant/Analyst (AA)	\$ 89
Senior Project Coordinator (SPC)	\$130
Project Coordinator (PC)	\$112
Senior Technical Editor (STE)	\$ 96
Administrative Assistant (ADA)	\$100
Data (DP)/Word Processing Secretary (WP)	\$ 88
Office Service Clerk (OS)	\$ 86
General Clerk (C)/Typist (Y)	\$ 68
Data Analyst (DA)	\$ 99
Construction Manager (CM)	\$173
Construction Supervisor (CS)	\$146
Construction Engineering Technician (CET)	\$137
Chief Engineering Technician (CT)	\$127
Engineer Technician V (ET-V)	\$112
Engineer Technician IV (ET-IV)	\$100
Engineer Technician III (ET-III)	\$ 87
Engineer Technician II (ET-II)	\$ 76
Engineer Technician I (ET-I)	\$ 64
Engineer Technician (ET)	\$ 42
Chief of Survey Parties (CSP)	\$142
3-Man Survey Party (SP-3M)	\$312
2-Man Survey Party (SP-2M)	\$258
1-Man Survey Party with GPS (1M-GPS)	\$198

1.4 Reimbursable Items

The following is a list of reimbursable items. (Effective January 1, 2013, through December 31, 2015)

A. IN-HOUSE EXPENSES		
Reproduction/Plotting:	Xerox Copies	\$0.10/page
	Color Copies	\$0.50/page
	Wide Format Copies	\$0.30/sq. ft.

A. IN-HOUSE EXPENSES (CONTINUED)		
Reproduction/Plotting Continued:	Blueprints	\$0.50/sq. ft.
	Bond Plotting -- Black & White	\$2.00/sq. ft.
	Bond Plotting -- Color	\$4.00/sq. ft.
	Vellum Plotting	\$4.00/sq. ft.
	Mylar Plotting	\$5.00/sq. ft.
Mileage:	Personal Vehicle	Per County Travel Policy
	Company Vehicle	\$0.70/mile
OR		
5% OF TOTAL PERSONNEL FEES		
B. OTHER EXPENSES		
Company Vehicles		\$15.00/hour
Survey Vehicles		\$15.00/hour
Other Out-of-Pocket Expenses/Supplies/Travel		Per County Travel Policy
Equipment Usage		See Attached Schedule
Consultants/Outside Services		Cost + 10%
Construction Services		Cost + 10%
Per Diem for Living Expenses		Per County Travel Policy
CADD Computer Usage		\$10.00/hour
Field Computer Services		\$40.00/week
GPS Survey Equipment Services		\$40.00/hour

1.5 Equipment Rental Rates

The following is a list of Equipment Rental Rates. (Effective January 1, 2013 to December 31, 2015.)

TYPE OF EQUIPMENT	DAY	WEEK	MONTH
4 Gas Range Meter CH4, H2S, CO, O2 (Sentinel 44)	\$75	\$200	\$500
Alpha - 1 Personal Sampling Pump	\$75	\$200	\$500
Disposable Bailer	\$20/each	n/a	n/a
CO2 Calorimetric Analysis Tubes	\$40	\$125	\$250
Downhole Camera	\$75/hr	n/a	n/a
Dupont Dosimeter Mark-3 (Personal Sample Pump)	\$50	\$150	\$300
Flow Calibrator (Gilian)	\$50	\$150	\$300
Gas Extraction Monitor (GEM 500 / 2000 / 2000 Plus)	\$125	\$350	\$900
Lung Sampler (Nutech 218)	\$100	\$300	\$800
Mini-Ram Data Logger	\$40	\$125	\$250

TYPE OF EQUIPMENT	DAY	WEEK	MONTH
Mini-Ram Dust Meter	\$50	\$150	\$300
Organic Vapor Analyzer (OVA128)	\$125	\$400	\$1,000
Photo Ionization Detector (OVM580B)	\$125	\$400	\$1,000
Sample Train (Gas Extraction Pump)	\$50	\$150	\$300
Soil Auger/Sampler	\$30	\$90	\$180
Sounder (Liquid Level Indicator)	\$40	\$125	\$250
Horiba Meter	\$50	\$200	\$400
MiniRae 2000	\$75	\$200	\$500
GT Surveyor	\$75	\$200	\$500
Groundwater Sampling Equipment	\$25/hour	n/a	n/a
Company Vehicle	\$120	\$480	\$1,250
Field Sampling Supplies:	100/day	n/a	n/a
LEVEL C (Per Person)	\$150	n/a	n/a
Respirator with Cartridge (full or half faced)			
Tyvek Coveralls			
Outer Gloves			
Glove Liners			
Neoprene Boots			

End of this page)

1.6 Three (3) Year Cost Summary for Monitoring, Testing, Sampling and Reporting

The following is a cost summary for Monitoring, Testing, Sampling and Reporting over a three (3) year period.

Geer Road Landfill
Environmental Monitoring, Testing, Sampling and Reporting
3-YEAR COST SUMMARY

DESCRIPTION	2013			2014			2015			TOTAL 3-YEAR COST
	COST PER TASK	# PER YEAR	TOTAL ANNUAL COST	COST PER TASK	# PER YEAR	TOTAL ANNUAL COST	COST PER TASK	# PER YEAR	TOTAL ANNUAL COST	
GROUNDWATER TASKS										
<i>a. Leachate Monitoring (2 Wells Monthly)</i>										
Monthly Liquid Level Monitoring	\$621	12	\$7,452	\$621	12	\$7,452	\$621	12	\$7,452	\$22,356
			\$7,452			\$7,452			\$7,452	\$22,356
<i>b/c. Groundwater Monitoring (57 Monitoring Wells, 2 Domestic Wells, 2 Mobil Home Park Wells)</i>										
Quarterly Monitoring & WLS - All Parameters	\$25,578	2	\$51,156	\$25,578	2	\$51,156	\$25,578	2	\$51,156	\$153,468
Semi-Annual Monitoring & WLS - All Parameters	\$31,106	2	\$62,212	\$31,106	2	\$62,212	\$31,106	2	\$62,212	\$186,636
			\$113,368			\$113,368			\$113,368	\$340,104
<i>d/e. Surface Water Monitoring</i>										
Sampling Sedimentation Basin & River	\$2,396	5	\$11,980	\$2,396	5	\$11,980	\$2,396	5	\$11,980	\$35,940
			\$11,980			\$11,980			\$11,980	\$35,940

f. GWETS System Monitoring & Monthly Reporting										
Weekly Monitoring	\$3,782	52	\$196,664	\$3,782	52	\$196,664	\$3,782	52	\$196,664	\$589,992
Monthly Sampling	\$5,744	12	\$68,928	\$5,744	12	\$68,928	\$5,744	12	\$68,928	\$206,784
			\$265,592			\$265,592			\$265,592	\$796,776
h. Groundwater Monitoring (Resampling - AS NEEDED COST PENDING)										
Quarterly Monitoring - Non-VOCs & WLS	COST FOR THIS ITEM NOT PROVIDED DUE TO VARIABILITY DEPENDING ON THE QUANTITY OF WELLS REQUIRING RESAMPLE									
COC Round Sampling (Q4 - 2015)										
i. Monitoring Reports										
Quarterly Monitoring Report	\$28,909	3	\$86,727	\$28,909	3	\$86,727	\$28,909	3	\$86,727	\$260,181
Annual Monitoring Report	\$38,686	1	\$38,686	\$38,686	1	\$38,686	\$38,686	1	\$38,686	\$116,058
			\$125,413			\$125,413			\$125,413	\$376,239
j. NPDES - SWPPP Report (Scope of Support Not Defined)										
Annual Report	COST FOR THIS ITEM NOT PROVIDED DUE TO UNDEFINED SCOPE									
Winterization Report										
r. Health and Safety Plan										
Site Specific HSP	\$1,876	1	\$1,876	\$1,876	0.5	\$938	\$1,876	0.5	\$938	\$3,752
			\$1,876			\$938			\$938	\$3,752

s. Regulatory Meetings (2 per year) - Total Annual												
Sacramento Meetings (w/ RWQCB: Total 2)	\$10,484	1	\$10,484	\$10,484	1	\$10,484	\$10,484	1	\$10,484	\$31,452		
Modesto Meeting (County Offices: Total 2)	\$10,484	1	\$10,484	\$10,484	1	\$10,484	\$10,484	1	\$10,484	\$31,452		
			\$20,968			\$20,968			\$20,968	\$62,904		
			\$546,649				\$545,711				\$545,711	\$1,638,071
LANDFILL GAS TASKS												
Monthly Monitoring (LFG Plant, Extr. Wells, Probes)	\$24,826	12	\$297,912	\$24,826	12	\$297,912	\$24,826	12	\$297,912	\$893,736		
Semi Annual Sampling (LFG Plant & Wells)	\$6,076	2	\$12,152	\$6,076	2	\$12,152	\$6,076	2	\$12,152	\$36,456		
Reporting (Annual - for inclusion in site report)	\$7,215	1	\$7,215	\$7,215	1	\$7,215	\$7,215	1	\$7,215	\$21,645		
			\$317,279				\$317,279				\$317,279	\$951,837
k. Surface Emission Monitoring (Assumes no detections during first four Quarterly events)												
Instantaneous Surface Monitoring (Annual)	\$9,859	1	\$9,859	\$9,859	1	\$9,859	\$9,859	1	\$9,859	\$29,577		
Integrated Surface Sampling (Annual)	\$10,861	1	\$10,861	\$10,861	1	\$10,861	\$10,861	1	\$10,861	\$32,583		
			\$20,720				\$20,720				\$20,720	\$62,160
l. Leak Monitoring at Blower Discharge												
Monitoring of pressurized piping	\$2,770	4	\$11,080	\$2,770	4	\$11,080	\$2,770	4	\$11,080	\$33,240		
			\$11,080				\$11,080				\$11,080	\$33,240

m. Non-Methane Organic Compound Testing (No Fees provided for the initial 3 year term through December 2013)										
Tier 2 NMOC Testing (June 2016)										
n. Greenhouse Gas Reports										
EPA Annual Report (Annually in March)	\$2,686	1	\$2,686	\$2,686	1	\$2,686	\$2,686	1	\$2,686	\$8,058
LMR Annual Report (Annually in March)	\$2,686	1	\$2,686	\$2,686	1	\$2,686	\$2,686	1	\$2,686	\$8,058
			\$5,372			\$5,372			\$5,372	\$16,116
o. Source Testing										
Source Testing & Reporting	\$13,565	1	\$13,565	\$13,565	1	\$13,565	\$13,565	1	\$13,565	\$40,695
			\$13,565			\$13,565			\$13,565	\$40,695
p. Title V Reporting										
Semi-Annual Reports for RRM (June / Dec.)	\$3,975	2	\$7,950	\$3,975	2	\$7,950	\$3,975	2	\$7,950	\$23,850
Annual COC Report (June)	\$2,419	1	\$2,419	\$2,419	1	\$2,419	\$2,419	1	\$2,419	\$7,257
			\$10,369			\$10,369			\$10,369	\$31,107
q. Landfill Gas Extraction System Performance Monitoring										
Annual Monitoring	\$2,531	12	\$30,372	\$2,531	12	\$30,372	\$2,531	12	\$30,372	\$91,116
			\$30,372			\$30,372			\$30,372	\$91,116
			\$408,757			\$408,757			\$408,757	\$1,226,271
TOTAL			\$955,406			\$954,468			\$954,468	\$2,864,342

1.7 The following is a summary of routine budget table for both prevailing wage and non-prevailing wage routine work listed above in 1.6 of this Fee Schedule.

DESCRIPTION	2013	2014	2015	TOTAL
1.7.1 - NON-PREVAILING WAGE				
GROUNDWATER (Items a, b, c, d, e, f, h, l, j, r, s)	\$411,449	\$410,511	\$410,511	\$1,232,471
LANDFILL GAS (Items g, k, l, m, n, o, p, q)	\$336,757	\$336,757	\$336,757	\$1,010,271
TOTAL (Non-Prevailing Wage)	\$748,206	\$747,268	\$747,268	\$2,242,742
1.7.2 - PREVAILING WAGE				
GROUNDWATER (Items a, b, c, d, e, f, h, l, j, r, s)	\$135,200	\$135,200	\$135,200	\$405,600
LANDFILL GAS (Items g, k, l, m, n, o, p, q)	\$72,000	\$72,000	\$72,000	\$216,000
TOTAL (Prevailing Wage)	\$207,200	\$207,200	\$207,200	\$621,600
1.7.3 - COMBINED				
GROUNDWATER (Items a, b, c, d, e, f, h, l, j, r, s)	\$546,649	\$545,711	\$545,711	\$1,638,071
LANDFILL GAS (Items g, k, l, m, n, o, p, q)	\$408,757	\$408,757	\$408,757	\$1,226,271
TOTAL (Combined)	\$955,406	\$954,468	\$954,468	\$2,864,342

EXHIBIT D

PROJECT AUTHORIZATION [SAMPLE]

Project No. 000

[To be prepared for each project.]

- 1. Except as hereinafter provided, the services provided by the Consultant under this Project Authorization (hereinafter referred to as "P.A.") shall be subject to the terms and conditions set forth in the Professional Design Services Master Agreement made and entered into by and between the County of Stanislaus ("County") and [Company Name] ("Contractor"), on [Insert Date], 20__.
- 2. The Consultant shall provide services under the Master Agreement and this Project Authorizations. as set forth in the Master Agreement Exhibits A and B and/or the Consultant's Proposed Project Scope of Work dated [Insert Date],.
- 3. Consultant will be compensated for the services described herein in accordance with the Section 2.0 of the Master Agreement. The maximum amount to be paid by the County for services provided under this Project Authorization. shall not exceed \$00,000, including, without limitation, the cost of any subcontractors, consultants, experts or investigators retained by the Consultant to perform or to assist in the performance of its work under this Project Authorization.
- 4. The term of this Project Authorization shall commence as stated in the Project Notice to Proceed and continue until all services described herein are completed, unless previously terminated as provided herein or as otherwise agreed to in writing by the parties. Consultant's services described herein shall be performed in strict compliance with this Project Authorization.

IN WITNESS WHEREOF, the parties hereto have caused this Project Authorization, Project Authorization No. 000 to be executed by and through their respective authorized officers:

COUNTY OF STANISLAUS
Department of Environmental Resources

TETRA TECH BAS, INC.

By: _____
Jami Aggers
Director

By: _____
Bryan A. Stirrat
President

APPROVED AS TO FORM:
John P. Doering
County Counsel

By: _____
Thomas E. Boze
Deputy County Counsel



**AMENDED AND RESTATED PROJECT AUTHORIZATION
for**

Monitoring, Sampling, Testing and Reporting at Geer Road Landfill

Project Number 13-001AR-SMG

WHEREAS, as of December 11, 2012, (the "Effective Date") the County and Consultant have entered into a certain Agreement relating to the provisions of monitoring, sampling and reporting services (the "Original Master Agreement"); and

WHEREAS the original *Master Agreement for Professional Design Services* number A101412 entered into on December 11, 2012, was amended and restated under Agreement number A101412AR on Jan 6, 2015; and

WHEREAS, as of January 1, 2013, (the "Project Authorization Effective Date") the County and Consultant have entered into a certain Project Authorization Agreement relating to the Implementation of the Monitoring, Sampling, Testing and Reporting Services at the Geer Road Landfill (the "Original Project Authorization"); and

WHEREAS, the County has a need, for Prevailing Wage Work for maintenance, on an "as needed basis", surveying, construction oversight, repairs, non-routine service calls, and emergency services and the Original Agreement failed to recognize that work requiring the payment of Prevailing Wage would be required under the Agreement; and

WHEREAS, the Original Project Authorization number 13-001-SMG, Section "F", total not to exceed amount of \$2,979,446 consisted of Item 1.5.1 totaling \$2,754,446 for the 3 year basic contract services, and 1.5.2 totaling \$225,000 for emergency/non-routine services; and

WHEREAS, maintenance, emergency services, repairs and non-routine services included in the Original Project Authorization number 13-001-SMG, shall be issued under a separate Amended and Restated Project Authorization; and

WHEREAS, the County has a need to deduct the amount of \$736,704 from the Original Project Authorization number 13-001, which consists of \$511,704 for maintenance and non-routine Work and \$225,000 for emergency services, and transfer this amount to a separate Amended and Restated Project Authorization to cover the maintenance, emergency services, repairs and non-routine services; and

WHEREAS, of the Two Million Two Hundred Forty-Two Thousand, Seven Hundred and Forty-Two Dollars (\$2,242,742.00) remaining under this Amended and Restated Agreement after the transfer of the amount of \$736,704 from the Original Project Authorization, an estimated amount of \$1,084,550.53 has been spent as of the date of this Amended and Restated Agreement; and

WHEREAS, both parties desire to Amend and Restate the Original Project Authorization number 13-001-SMG to be consistent with the Amended and Restated Master Agreement; and

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

A. Terms and Conditions

Except as hereinafter provided, the services provided by the Consultant under this Project Authorization, shall be subject to the terms and conditions set forth in the *Amended and Restated Master Agreement for Professional Design Services* number A101412AR and its Exhibits 1, "C" and "D" made and entered into by and between the County of Stanislaus ("County") Tetra Tech BAS Inc., ("Consultant"), on January 6, 2015.

B. Scope of Work**1. ENVIRONMENTAL MONITORING, SAMPLING, TESTING/ANALYZING AND REPORTING**

Consultant shall provide all the labor, materials and equipment necessary to provide environmental monitoring, sampling, testing/analyzing, and reporting services at the County's Geer Road Landfill. Prevailing wage work, including, but not limited to, performing corrective action cover maintenance, implementation of corrective action, inspection, drilling, using and auger, adjusting, implementation of remedial action, calibrating, cleaning, surveying, flagging, repairing, installing, etc., as identified in Section 1 and Section 2, Item 2.3 et seq., of the Amended and Restated Master Agreement, shall be performed under a separate project authorization.

The following list of environmental monitoring requirements is not necessarily all-inclusive. It is the Consultant's responsibility to verify all environmental monitoring requirements required by the permits and all applicable statutory/regulatory requirements. Where applicable, tasks that are and will continue to be performed by County personnel are so noted. All other identified tasks shall be provided by the Consultant.

Consultant shall include oversight and coordination of the entirety of the environmental monitoring program for the site. These tasks may include but are not limited to periodic communication with the County's Project Manager(s) and troubleshooting landfill site issues. The scope of service the Consultant shall perform include, but are not limited to, the following tasks for monitoring, sampling, testing/analyzing, and reporting services:

1.1 Leachate Monitoring

1.1.1 The landfill predated the requirements for leachate collection and removal systems. Since no such systems exist at the landfill, leachate monitoring of a leachate collection and removal system is not performed.

1.1.2 There are, however, two (2) "leachate wells" (designated LW-1 and LW-2) present at the site. Consultant shall monitor on a quarterly basis, the liquid levels (if present) within these wells. If Consultant observes leachate seeps, Consultant shall collect and analyze samples of liquids from these wells as part of the groundwater monitoring activities in accordance with the Revised MRP. No leachate seeps have been observed in recent years. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.

1.1.3 Wells LW-1 and LW-2 were installed in February 2002. These wells are screened in the bottom of the waste unit to depths of 63 feet and 76 feet, respectively, and are monitored quarterly, typically in conjunction with the collection of the quarterly groundwater elevations in monitoring wells. The Revised MRP contains specific monitoring requirements.

1.2 Groundwater Monitoring, Sampling and Testing/Analyzing

1.2.1 Currently there are 52 groundwater monitoring wells (MW) installed at the site to assess groundwater conditions in and around the site. The quantity of groundwater monitoring wells could increase or decrease throughout the duration of this Agreement. Thirty-two of these wells are designated as "shallow" wells and are indicated with an "S" in the well number. These wells are typically screened across the static water level of the first saturated zone. The remaining 20 wells are designated "deep" wells and are indicated with a "D" in the well number and are typically screened at depths of 30-50 feet below the static water level in the shallow zone. The wells are divided into Group I wells, which are sampled on a quarterly basis, and Group II wells, which are sampled semi-annually.

1.2.2 The following summarizes the current number of wells comprising the groundwater monitoring network, the frequency at which those wells are sampled and the number of analyses:

- a. 32 Shallow Wells
 - i. 20 Shallow Wells Sampled Quarterly:

MW-2S, MW-3S, MW-4S, MW-5S, MW-8S, MW-9S, MW-14S, MW-15S, MW-23S, MW-24, MW-26S, MW-27S, MW-28S, MW-29S, MW-30S, PZ-1, PZ-2, PZ-3, PZ-4, PZ-6

- ii. 12 Additional Shallow Wells Samples Semi-Annually:
MW-1S, MW-7S, MW-10S, MW-11S, MW-12S, MW-13S, MW-16S, MW-17S, MW-18S, MW-19S, MW-21S, MW-22S
- b. 20 Deep Wells
 - i. 14 Deep Wells Sampled Quarterly :
MW-1D, MW-2D, MW-3D, MW-4D, MW-15D, MW-23D, MW-24D, MW-25D2, MW-25D3, MW-26D, MW-27D, MW-28D, MW-29D, MW-30D
 - ii. 6 Additional Deep Wells Sampled Semi-Annually:
MW-7D, MW-17D, MW-18D, MW-19D, MW-21D, MW-22D
- c. 4 Private Wells
 - i. 4 Wells Sampled Semi-Annually:
Streeter-Shop, Streeter-House, PMW-1, PMW-2
- d. 2 Leachate Wells
 - i. 2 Wells Monitored Quarterly:
LW-1, LW-2 (Assumed Dry)
- e. Analytical Testing Quantities:
 - i. Quarterly Events:
38 Primary Samples
2 Blind Duplicate Samples
6 Trip Blanks (VOCs Only)
1 Field Blank (VOCs Only)
 - ii. Semi-Annual Events:
56 Primary Samples
2 Blind Duplicate Samples
6 Trip Blanks (VOCs Only)
1 Field Blank (VOCs Only)

1.2.3 The wells are divided into two (2) groups. Group I wells; Consultant shall sample and analyze/test on a quarterly basis. Group II wells Consultant shall sample and analyze/test on a semi-annual basis. In addition, the wells are divided into the following types: background, detection monitoring (for either shallow or deep zones), point of compliance (for either shallow or deep zones), corrective action monitoring (for either shallow or deep zones), or other off-site monitoring.

1.2.4 The site monitoring program includes other required off-site monitoring points listed in the MRP. These off-site monitoring points consist of two (2) domestic wells located on the adjacent privately owned (Streeter) property and two (2) wells located across Geer Road in the Pinewood Meadows Mobile Home Park. Consultant shall sample and analyze/test these domestic wells, contingent upon access permission being granted by the property owners. Currently the property owners are cooperatively allowing access. However, a courtesy contact is required to be performed by the Consultant prior to sampling events. There have been periods in the past when access was denied. The owners of the Streeter property have agreed to continue to grant access to sampling their two (2) wells (one [1] each for the house and shop). Consultant shall manually sample the off-site monitoring points from the well spigots at, or nearest to, the wellheads. The County will be asking the Water Board to delete one (1) of the two (2) Streeter wells from the required monitoring as the Consultant has determined that this is a duplicate well.

1.2.5 In the recent past, groundwater samples from monitoring wells have been collected using a Grundfos Redi-Flo 2 pump system to purge and sample. For wells that are sampled, the depth to pump intake

is measured from the top of each well casing, as well as the purge rate, each of which is recorded. Purge water is treated and disposed of through the groundwater extraction and treatment system (GWETS) onsite. Consultant shall also field analyze samples for the following parameters: temperature, electrical conductivity, pH, turbidity, and Eh and a Horiba U-10 meter has been used most recently. The Consultant shall utilize sampling protocol that conforms with the WDRs and the Revised MRP.

1.2.6 Constituents of Concern (COC) are to be sampled and analyzed/tested every five (5) years, and most recently this was completed in January 2013 under a previous Agreement. Consultant shall perform and complete the next sampling event for COCs in the second half of 2016 and shall report the results by January 31, 2017 to the Water Board.

1.2.7 Consultant understands the significance of the data being generated through the groundwater and leachate monitoring and sampling activities at the Geer Road Landfill site. Data gathered through these activities shall be relied upon as the basis for site compliance, for determinations regarding the effectiveness of corrective action measures currently in place, and for potential future expansion of those measures. As such, Consultant shall follow strict groundwater sampling protocol standards to ensure that the samples accurately represent the groundwater conditions beneath the site. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement. In performing routine monitoring and sampling of groundwater monitoring wells under this Agreement, the following monitoring and sampling protocols shall be implemented:

a. Prior to initiation of any field activities, the Consultant shall notify the County of the date and time of the sampling event. Field activities requiring prevailing wage work as defined in Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization.

b. Consultant's internal communication between the Consultant's Groundwater Project Manager, project analytical laboratory (BC Labs), and Consultant's field sampling crews is critical. Consultant shall ensure that the scope of all monitoring, sampling, and testing is performed in accordance with the site specific Monitoring and Reporting Program (MRP). Consultant's Groundwater Project Manager shall prepare and distribute a sampling and testing summary to the project Consultant's Field Manager and BC Labs one (1) month prior to initiation of field activities in order to ensure the timeliness of sample container deliveries. BC Labs, the Consultant's subcontractor, shall use the summary as a guide to prepare sample container packages, and the Consultant's field crews shall use the summary as a cross check upon container delivery. Consultant's subcontractor, BC Labs, shall deliver sample containers to the Consultant one (1) week prior to the start of sampling activities. Consultant shall store the containers in a clean secure area, away from any potential contaminant sources.

c. During the Consultant's sample collection activities, the Consultant shall use the sampling and testing summary to allow the field crews to confirm that all samples have been collected. Consultant's field crews shall assist in the preparation of sample tracking paperwork, including chain-of-custody documentation. Upon receipt of the samples at the lab, the summary shall provide an added level of quality control that the lab can use to ensure that all of the proper samples have been collected in the correct containers. Should the lab determine that the delivered containers are inconsistent with the required analyses, the Consultant's Groundwater Project Manager shall be notified immediately, and steps shall be taken to re-collect samples as necessary and/or to determine whether sufficient samples exist to allow for performance of all the required analyses. Upon receipt of samples, the lab shall complete a Sample Receipt Form, which shall be part of the final testing report.

d. At the beginning of Consultant's daily field activities, and between each sampling location, all monitoring equipment being introduced into the site wells by the Consultant shall be decontaminated by the Consultant using a non-phosphate wash solution, followed by two rinses with de-ionized water.

e. Before Consultant's initiation of sample collection activities at any site, Consultant shall measure water levels in the designated wells comprising the site monitoring network. Water levels shall be measured using an electronic water level indicator, to an accuracy of ± 0.01 ft., prior to initiation of any well purging and sampling. During collection of water level measurements, Consultant's field personnel shall evaluate the condition of each well to be sampled and the County shall be notified immediately, through the established lines of communication, of any observed evidence of damage, tampering, or vandalism. If it is identified that repair or maintenance work needs to be performed, the work shall be performed in accordance with Section 1 and Section 2,

Item 2.3 et seq., of the Amended and Restated Master Agreement, under a separate Project Authorization or Agreement. Consultant's rapid notifications shall help to ensure timeliness in the completion of field sampling activities.

f. Following Consultant's completion of water level monitoring activities, Consultant shall purge the wells to remove any stagnant water that may not be representative of formation. During purging, the discharged water shall be monitored for electrical conductivity, temperature, salinity, turbidity, dissolved oxygen, and pH, to confirm that these parameters have stabilized and that fresh formation water is being produced. Consultant shall record this data on a pre-printed Groundwater Well Sampling Log. Consultant shall strictly follow all manufacturers' recommendations regarding proper use and calibration of these field monitoring instruments. At a minimum, Consultant shall calibrate units daily in the field at the start and end of each day of sampling and, as-needed, based on field encountered conditions. Consultant shall transfer the purged water directly to the GWETS treatment system.

g. Consultant shall collect water samples (either from purged groundwater monitoring wells or grab samples collected from leachate wells or off-site domestic wells) into laboratory-provided containers with appropriate preservatives, and immediately place into a field cooler with ice at a temperature of 4°C. Samples designated for metals analysis (if necessary) shall be filtered through a 0.45-micron filter in the field. Trip blanks, field blanks, equipment blanks (for bailed wells), and duplicate samples shall be collected in accordance with the site sampling program, and results of these analyses shall serve to demonstrate the accuracy and reliability of the sampling and analytical testing program.

h. Consultant shall schedule sample pickup for each day of sampling to ensure that samples arrive at the lab within 24 hours of collection. Samples shall be transported under strict chain-of-custody (COC) protocols. A COC form shall be completed in the field, detailing the sample ID numbers, time and date of collection, and required testing. The COC form shall be signed by the person collecting the samples and all those retaining sample custody until delivery to the lab.

i. Typically, the Consultant's lab shall provide results of analytical tests within two (2) weeks of receipt of collected samples. Consultant shall perform necessary data validation activities, address any issues related to potential field or laboratory introduced contamination, and/or conduct any required re-testing related to tentatively identified releases. In addition, prompt analytical testing will allow, if necessary, Consultant to re-analyze a sample within prescribed holding times without a need to re-sample.

j. Should there be an indication of laboratory or field contamination, Consultant shall perform a review of the facilities and practices potentially contributing to the specific contamination. This may include Consultant's:

- i. Assessment of the particular contaminant and identification of common sources;
- ii. Review of field data sheets, field notes, and COCs;
- iii. Interviews with field and/or laboratory personnel regarding procedures and practices conducted;
- iv. Direct inspection of field and laboratory facilities; and
- v. Auditing of field and/or laboratory personnel during performance of their work.

1.2.8 Upon determination of the cause, or probable cause of the suspected field and/or laboratory introduced contamination, but not more than 30 days following identification of the suspected contamination, Consultant shall provide the County with proposed corrective actions and/or modifications of protocols that shall be implemented to prevent a recurrence. The development and presentation of proposed corrective actions and/or modifications of protocols is included in the total not to exceed price of this Project Authorization. Implementation of corrective actions and/or modifications shall be issued under a separate project authorization and shall be in accordance with Section 1 and Section 2 Item 2.3 et seq., of the Amended and Restated Master Agreement.

1.2.9 As necessary and in accordance with the site MRP, Consultant shall collect samples from any leachate seeps observed at the time of site sampling activities. Should a leachate seep be observed, Consultant shall notify the County immediately. At the County's direction, Consultant shall assist the County in the preparation of the associated and required written report to the RWQCB.

1.3. Groundwater Elevations and Flow

1.3.1 In 2011, groundwater elevations in the shallow wells ranged from approximately 50 feet mean sea level (MSL) to approximately 75 feet MSL. In the deep wells, groundwater elevations ranged from approximately 53 feet to approximately 70 feet MSL.

1.3.2 Consultant shall collect and report groundwater level measurements, in accordance with the Revised MRP. Consultant shall also collect and report surface water elevations of the Tuolumne River in accordance with the Revised MRP. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.

1.3.3 Consultant shall take depth to groundwater measurements in conjunction with the groundwater monitoring activities described in Section 1.2 above. The Consultant shall use the data collected from these activities to determine groundwater gradients, flows and velocities in accordance with the site MRP and the data shall be included in the quarterly and annual reports prepared by the Consultant.

1.3.4 Consultant shall document and report, in accordance with the Revised MRP, both shallow and deep groundwater flow patterns. Generally, however, the direction of flow is southwest to west or towards the Tuolumne River (shallow) and from the northeast and towards the southwest (deep). Consultant shall determine the groundwater velocity in the shallow and deep zones, in accordance with the Revised MRP.

1.4. Surface Water Monitoring, Sampling and Testing/Analyzing (Sedimentation Basin and Tuolumne River)

1.4.1 Consultant shall conduct surface water monitoring at the discharge point from the on-site sedimentation basin, in accordance with WDR Order Number R5-2009-0051. Also see Sedimentation Basin and Tuolumne River sampling, below. In accordance with the Revised MRP, the Consultant shall collect samples from the sedimentation basin during the first storm event of the rainy season and during one other storm event that produces significant flow discharging from the sedimentation basin. Consultant shall perform monitoring and testing/analysis in accordance with the Revised MRP as described in the following section. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.

1.4.1.1. Sedimentation Basin and Tuolumne River Monitoring

There is one (1) sedimentation basin present onsite. Consultant shall each year monitor the discharge from the onsite sedimentation basin and the Tuolumne River during the months of July through November in accordance with the Revised MRP. Consultant shall, in accordance with the Tuolumne River Sampling and Analysis Plan (SAP Version 2), collect river samples from a total of three (3) locations. Consultant shall collect samples from areas of low turbulence, and sample containers shall be submerged fully in order to ensure collection of representative samples. Consultant shall also collect a sample from the discharge of the sedimentation basin at the site, as prescribed in the MRP. Consultant shall conduct analytical testing of collected samples in accordance with the MRP and the SAP.

1.5. GWETS Monitoring

1.5.1 A Groundwater Extraction and Treatment System (GWETS) was installed at the Geer Road Landfill in 1993, with the intent of controlling, capturing and treating contaminated groundwater beneath the site. The GWETS consists of 12 groundwater extraction wells (EX-well), each equipped with a pneumatic pump that discharges to a main header leading to the GWETS treatment plant and two (2) granular activated carbon (GAC) treatment vessels for the removal of VOCs. The volume of water treated and mass of VOCs removed from the GWETS is required to be calculated and reported, however this was not always a requirement. Therefore, the volume of water and cumulative mass removed for the lifetime of the system is not available. Since

this data has been required the values have been calculated using total VOC detection from influent samples collected during forty-day monitoring events and total flow recorded for each forty-day period. Effluent from the treatment system is discharged to the subsurface through a series of reinjection trenches. Extracted VOC impacted groundwater is treated at the plant using granular activated carbon. Operation of the GWETS is critical to maintaining the site's compliance status. Additionally a Telemetric Auto Reporting System is currently not in operation due to the severity and cost associated with onsite vandalism. The system, however, does have counters that track flow rate and total flow which are required to be monitored and recorded as per the WDRs and Revised MRP. The system is currently under evaluation, and optimization strategies are being implemented to increase the capture capability of the system, especially along the western edge of the landfill where vinyl chloride impacts to groundwater have been identified and where no decreasing trend in VOC concentrations has been observed. Ongoing efforts to optimize the landfill gas extraction system (LFGES) are being utilized to provide long-term decreases in site-wide VOC impacts to groundwater. Per the WDRs and Revised MRP, the annual GWETS plant run time, down time, and duration of downtime shall be reported in hours in/not in operation, and percent of total time in full operation and a 95% run time (or better) must be met annually. It should be noted that currently EX- well Number 4 is unable to be sampled and the system is under evaluation, and optimization strategies are being implemented to increase the capture capability of the system, especially along the western edge of the landfill where vinyl chloride impacts to the groundwater have been identified and where no decreasing trend in VOC concentrations has been observed. Ongoing efforts to optimize the landfill gas extraction system (LFGES) are being utilized to provide long-term decreases in site-wide VOC impacts to groundwater. It should also be noted that County staff is in the process of identifying a mechanism to upgrade the GWETS to increase the volume of treated groundwater within the existing limitations of the system. Under a separate Agreement, an emergency back-up compressor was installed in October 2011, to prevent system shutdown due to compressor failure; and a new Auto-dialer call-out system was also installed in November 2011 to minimize system off-line time.

1.5.2 Consultant shall perform inspections on the entire GWETS system weekly, including each of the extraction wells. During each inspection, Consultant shall also inspect the GWETS treatment plant and any discrepancies in system operation shall be noted by the Consultant. Extraction well pumps shall be inspected for damage and vandalism, and to verify that they are operating properly. Because of the location of the wells along the lightly secured site perimeter, it is critical that the wells be secure. The hydrogeology of the site is such that the wells should be able to operate in a continuous manner under most conditions. Consultant's field crews shall observe and record the operation of each pump and note any inconsistency in their operation. Each pump is equipped with a cycle counter that can be used to correlate instantaneous pumping rates to the average pumping rate since the previous inspection. Often, lack of operation of pneumatic pumps can be addressed through clearing of the pneumatic line or adjustment of the pump regulator at the surface and if this work is required it shall be performed under a separate Project Authorization in accordance with the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq. Should a pump be observed to be inoperable Consultant shall notify the County immediately and make recommendations on how the County should have repair made. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement. Consultant shall be in full compliance with these Sections. Depth to water and total depths, in addition to a summary of necessary maintenance/repairs, shall be recorded as per the WDRs and Revised MRP. Consultant shall perform a second weekly visit specifically to address filter inspection and a summary of necessary maintenance/replacement shall be recorded as per the WDRs and Revised MRP. Maintenance (filter maintenance and cleaning), repair work or emergency work authorized by the County to be performed by the Consultant under a separate Project Authorization and shall be in accordance Section 1 and Section 2, Item 2.3 et seq., of the Amended and Restated Master Agreement. Consultant understands that work considered public projects, as defined in the Public Contracting Code Section 22002 (c) is not authorized under this Agreement.

1.5.3 During each inspection, Consultant shall also inspect the GWETS treatment plant and any discrepancies in system operation shall be noted by the Consultant. Consultant shall record influent flows during each primary weekly inspection. Consultant shall at least once every forty (40) days, collect samples from the influent water to the treatment plant (sample point SP-13), the mid-point between the two (2) GAC canisters (SP-14), and the effluent from the plant after treatment (SP-15) to monitor for VOC breakthrough. Consultant shall analyze all samples for VOCs by EPA Method 8260V. Influent and effluent samples are additionally analyzed for total dissolved solids and arsenic. This sampling and analysis is conducted to detect canister break-through (VOC saturation of the media) in the first treatment vessel so that the GAC media can be changed out. At times a re-test may be warranted, which is to be determined through Consultant's discussions with County personnel. If break-through is confirmed, Consultant shall

immediately notify the County and provide the County a written proposal of the costs for the change-out, if requested by the County. The change-out shall be in accordance with Section 1 and Section 2, Item 2.3 et seq., of the Amended and Restated Master Agreement and work shall be performed under a separate Agreement. The County shall notify the RWQCB as per the WDRs and Revised MRP.

1.5.4 Consultant shall purge accumulated solids in the system sedimentation tank to the filter bed and, shall inspect the system flow meters. (Any maintenance or repair work including calibration and routine air compressor maintenance, etc., shall be performed under a separate Project Authorization in accordance with Section 1 and Section 2, Item 2.3 et seq., of the Amended and Restated Master Agreement.) Results of the influent and effluent sampling and recorded system flows shall be used by Consultant to calculate the mass of VOCs removed by the GWETS. Consultant shall include this data in the quarterly and annual reports described later in this Agreement. A report of system operation shall be submitted by the Consultant to the County at the end of each month detailing the activities performed, data collected, and recommendations for system repairs, upgrades, or modifications. Consultant understands that work considered as a Public Project (public works of improvement) as described in Section 1.5 and Section 1.5.1 of the Amended and Restated Master Agreement is not authorized under this Agreement and that maintenance and repair work shall be in accordance with Section 1 and Section 2, Item 2.3 et seq., of the Amended and Restated Master Agreement.

1.6 Landfill Gas Monitoring

1.6.1 The Revised MRP monitoring program requires that the LFG Plant and LFG extraction wells and monitoring probes be monitored and reported on as part of the LFG monitoring program, including the following:

1.6.2 Landfill Gas Plant Monitoring

At a minimum of once per month, Consultant shall monitor the flare station at the landfill for the following:

- a. Atmospheric temperature;
- b. Atmospheric pressure;
- c. Landfill gas temperature on the inlet to the plant;
- d. Landfill gas pressure on the inlet to the plant;
- e. Totalized landfill gas flow;
- f. Flow rate into the plant from existing flow meter; and
- g. Total halogenated VOCs into the plant.

1.6.2.1 In addition to the above listed monitoring parameters, Consultant shall increase the frequency of the monitoring to weekly monitoring at the landfill gas plant and expand the monitored parameters. The Geer Road Landfill currently operates at lower than typical methane concentrations. Due to this lower operating condition, Consultant shall evaluate on a weekly basis the landfill gas plant. Additionally, the monitoring of the landfill gas plant should be expanded to include the following items:

- a. Methane concentration;
- b. Carbon dioxide concentration;
- c. Oxygen concentration;
- d. Balance gas concentration;
- e. Landfill gas temperature at the inlet of the blower;
- f. Landfill gas temperature at the outlet of the blower;
- g. Static pressure at the inlet of the knock-out vessel;
- h. Static pressure at the outlet of the knock-out vessel;
- i. Blower run time and identification of operating blower;
- j. Flow rate from manual determination (pitot tube) for meter accuracy verification;
- k. Flame arrestor inlet and outlet static pressure;
- l. Flame arrestor differential pressure;
- m. Condensate level;
- n. Condensate injection system operational status; and
- o. Quantity of condensate injected into the flare.

1.6.3 Landfill Gas Well Monitoring

1.6.3.1 Monitoring of the landfill gas extraction wells is directly associated with the continued groundwater clean-up efforts currently being undertaken. The source of the groundwater contamination is at least partially caused by the ineffective design, maintenance and operation of the landfill gas collection system that has historically occurred at the Geer Road Landfill. The system that Consultant employs for the monitoring and adjustment of the collection system indicates that vinyl chloride concentrations in the majority of the vadose zone extraction wells have decreased. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.

1.6.3.2 Consultant shall monitor the landfill gas collection system utilizing a multiple step process for the monitoring as outlined below. Consultant's adjustment of the landfill gas collection system shall be performed under a separate Project Authorization in accordance with Section 1 and Section 2, Item 2.3 et seq., of this Amended and Restated Master Agreement.

- a. Consultant's technicians shall perform an initial monitoring of the landfill gas collection system extraction components following Consultant's standard operating procedures (SOP).
- b. The results of this initial round of monitoring shall be provided to the Consultant's engineering staff, who reviews the results.
- c. The Consultant's engineering staff shall recommend adjustments based on numerous criteria including the gas composition, the ratio of specific compounds, the flow rate of the well and other key criteria.
- d. The adjustment recommendations shall be sent back to the Consultant's technician in the field, who shall then implement the adjustment recommendations under a separate Project Authorization.
- e. The Consultants technicians are not authorized to make adjustments without the direction of the Consultant's engineering staff.
- f. This allows the Consultant's key members of the project team to remain in control and responsible for the optimization of the collection system.

1.6.3.3 During these monitoring events, Consultant shall record numerous items for both regulatory compliance and to assist in tuning compliance. Consultant's adjustment of the landfill gas collection system shall be performed under a separate Project Authorization in accordance with Section 1 and Section 2, Item 2.3 et seq., of this Amended and Restated Master Agreement. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement. The following list includes the minimum items that are included on the monitoring forms completed by the Consultant's technician and approved by the Consultant's engineering staff:

- a. Landfill gas composition;
- b. Weather conditions;
- c. Atmospheric temperature;
- d. Atmospheric pressure;
- e. Landfill gas temperature;
- f. Initial and adjusted static pressure in the wellhead;
- g. Landfill gas flow rate; and
- h. Vacuum availability.

1.6.3.4 Consultant shall monitor the landfill gas collection system, in excess of the minimum required once per month basis, to continue the optimization of the landfill gas collection system to reduce the potential groundwater contamination. The monitoring of the landfill gas collection system shall consist of monitoring 98 vertical landfill gas extraction wells on a bi-weekly basis. The quantity of the vertical landfill gas extraction wells may increase or decrease throughout the term of this Agreement. This approach has been successful as the vinyl chloride concentrations in numerous vadose zone extraction wells has decreased significantly. By maintaining the frequency of the monitoring of the collection system, the improved vadose zone vinyl chloride concentration is expected to continue. Consultant's adjustment of the landfill gas collection system shall be performed under a separate Project Authorization in accordance with Section 1 and Section 2, Item 2.3 et seq., of this Amended and Restated Master Agreement. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.

1.7 Perimeter Monitoring Probe Monitoring

1.7.1 Consultant shall perform monthly monitoring of all LFG extraction wells and the monitoring probes for field and monitoring parameters. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, inspection, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement. This task includes the monitoring of the following:

- a. Weather conditions;
- b. Atmospheric temperature;
- c. Atmospheric pressure;
- d. Gas temperature at each well (before and after adjustment);
- e. Gas pressure at each well (initial static pressure in wellhead and adjusted static pressure in wellhead); and
- f. Gas concentration at each well for methane, carbon dioxide, oxygen, and remainder gas.

1.7.2 Consultant shall monitor, once per month, the perimeter methane monitoring probes along the perimeter of the landfill in accordance with Title 14 of the California Code of Regulations (CCR), Sections 17783.7 and 17783.9. Consultant shall monitor with a LandTec GEM-2000 with results being recorded both electronically and in hard copy. Consultant shall maintain the following information in a database to allow for the identification of potential trends in the monitoring probe data:

- a. Date and time of the monitoring event;
- b. Certification of monitoring result accuracy by the technician;
- c. Type of monitoring equipment used and serial number;
- d. Meteorological conditions:
 - i. Barometric pressure;
 - ii. Ambient temperature;
 - iii. Wind speed; and
 - iv. Precipitation (if applicable);
- e. Initial static pressure of the perimeter monitoring probe;
- f. Purge time for each specific monitoring probe;
- g. Methane concentration;
- h. Carbon dioxide concentration;
- i. Oxygen concentration; and
- j. Approval of engineering staff.

1.7.3 Consultant has developed an SOP for the monitoring of perimeter methane monitoring probes. This method incorporates the use of an evacuation pump for removing at least one volume of annular space from the probe prior to sampling. This evacuation allows the monitoring to effectively evaluate the gas in the soil, rather than the gas that is trapped in the annular space prior to sampling. Consultant shall review and approve, by a member of the Consultant's engineering staff prior to being submitted to the County or any regulatory agency, the perimeter monitoring probe data sheets for quality control and data validation activities. If any issues are noted by the Consultant's engineering staff during this review the Consultant's technician shall be contacted to verify the accuracy of the information collected.

- a. Consultant shall notify the County within 24 hours of detection of methane concentrations higher than 5.0% by volume;
- b. Consultant shall perform weekly follow-up monitoring of the probe and adjust the landfill gas collection system in an effort to reduce the methane concentration in the probe to below 5.0% by volume; and
- c. Consultant shall monitor the perimeter probe network consisting of 77 perimeter monitoring probes constructed to varying depths.

1.7.4 Through the use of the Consultant's database system, alerts shall be issued prior to the regulatory exceedence of 5.0% methane by volume. These alerts can be custom designed based on site specific criteria and allow advanced notice of potentially increasing methane concentration in the perimeter methane monitoring probes. The database system allows Consultant to be proactive in remedying potential regulatory issues before they are officially an exceedence.

1.8 Semi-Annual Plant Analysis

1.8.1 In accordance with the Landfill's Revised Monitoring and Reporting Plan (MRP), Consultant shall perform landfill gas sampling and analysis from the flare station on a semi-annual basis. Consultant shall perform the analysis following the United States Environmental Protection Agency Method TO-15 for volatile organic compounds and a fixed gas analysis through both gas chromatography and mass spectrometry for methane concentration. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, drilling, using an auger, inspections, adjustments, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.

1.9. Semi-Annual Extraction Point Sampling and Analysis

1.9.1 In accordance with the Landfill's Revised MRP, Consultant shall perform semi-annual monitoring of landfill gas sampling and analysis from several extraction components. The extraction points that must be sampled and analyzed for VOCs are RW-11D, RW-12D, RW-14D, EW-22, and EW-59. Consultant shall perform the analysis following the United States Environmental Protection Agency Method TO-15 for volatile organic compounds and a fixed gas analysis through both gas chromatography and mass spectrometry for methane concentration. The quantity of extraction wells may increase or decrease through the duration of this Agreement. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, drilling, using an auger, adjustments, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.

1.10 Operational Conditions

1.10.1 Consultant understands that the operational run-time of the landfill gas plant is paramount to the success of the groundwater cleanup efforts to facilitate an increased operational time. One of these improvements was an update to the programmable logic control to allow for the electronic collection and organization of operational conditions of the flare station. Consultant shall maintain a current, updated database of the LFG operational Plant run time and associated other calculations required by the Revised MRP including hours in/not in operation, duration of downtimes, and percentage of overall time that the system is operational. The LFG Plant run time is tracked by an automatic chart recorder and must meet the requirements as per the WDRs and Revised MRP. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et

seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.

1.11 Controlled Landfill Gas Documentation

1.11.1 In accordance with the Revised MRP, the total volume of landfill gas that is treated by the control device must be monitored, recorded, and reported. Additionally, the Landfill's Permit to Operate has a condition that provides a maximum quantity of landfill gas that can be controlled per day (Permit to Operate, Condition 34). The volume of gas treated and mass of VOCs removed must be calculated and reported. These values have been determined using totalizer flow readings (total cubic feet passed through the system) from the Plant chart automatic readings. After a recent inspection performed by the San Joaquin Valley Air Pollution Control District, a form was developed that calculates and records the total landfill gas controlled on a daily and annual basis. Consultant shall use this form to monitor and record the total landfill gas flow rate controlled by the flare station. Consultant shall also use this form to calculate and track the total mass of volatile organic compounds that are controlled by the flare station based upon the results of the annual source test and the flow rate information that is recorded on a daily basis.

1.12. Resampling

1.12.1 In accordance with the site MRP, resampling shall be conducted by Consultant should groundwater samples exceed Concentration Limits established for a certain constituents analytical testing, indicating the presence of contaminants in exceedence of established Concentration Limits for specific parameters. In addition to the multi-level quality assurance measures integrated into the sampling activities described previously, resampling shall help to eliminate the possibility of potential field or laboratory introduced contamination or a false positive. It is critical that Consultant maintains the integrity of the analytical data due to the significant decision-making that will be based on the results.

1.12.2 When water monitoring results indicate a possible new release from the landfill, either through detection of a non-naturally occurring compound that was previously non-detected at a specific sampling point, or by detection of a naturally occurring element or compound which exceeds the concentration limit for the first time at a specific sampling point, verification (retest) sampling shall be performed in accordance with the WDRs and Title 27 CCR Section 20415(e)(8)(E).

1.13. Monitoring Reports

1.13.1 Four (4) reports are required per year, one following each quarter, for submittal to the RWQCB. These reports must meet all requirements set forth in WDR Order Number R5-2009-0051 and the Revised MRP, including LFG system monitoring data. The end of the year report shall include the fourth quarter report and a summary of the year's findings. A draft copy of each report shall be submitted to the County for their review and comment. Once the report is approved by the County, one (1) copy shall be sent to the RWQCB and two (2) copies, electronically and in hard copy, to the County.

1.13.2 The quarterly reports shall describe the quarter's activities and shall include the analytical results of the monitoring in a tabular form. The fourth quarter/annual report shall compile and analyze the data collected throughout the year and shall assess the trends or significant variations that appear to exist in the data. The County's data on settlement or other pertinent onsite repairs shall be included in the reports at the appropriate intervals.

1.13.3 Consultant shall prepare quarterly and annual reports in a timely manner to meet the requirements of the RWQCB. Consultant's reporting formats shall follow the existing organization and format structure. Consultant shall perform a QA/QC review of the latest reports for inconsistencies with the actual program being implemented. Upon completion of this review, the findings shall be presented to the County for determination of appropriate action. It is not the intention of this review to change the reporting format that the County and RWQCB have become accustomed to. Rather, it is to ensure the accuracy of the reports and to maintain the County's standing with the RWQCB.

1.13.4 In order to facilitate the timeliness of the County's report submittals to the RWQCB, Consultant shall provide the draft reports to the County not less than three weeks prior to their due dates. Consultant shall be available to review any comments made by the County as necessary and appropriate. Once comments have been received and addressed, Consultant shall provide final versions of the reports for submittal to the RWQCB.

1.13.5 Consultant shall prepare reports that present results of all monitoring activities as well as operational data for both the GWETS and the landfill gas system at the site. The final report each year shall include a summary of the entire year's activities and findings.

1.13.6 At a minimum, each quarterly report prepared by Consultant shall include the following:

- a. Cover Letter;
- b. A Compliance Evaluation Summary that includes:
 - i. Field activities performed and the protocols followed for all monitoring points;
 - ii. A map showing the monitoring and observation points;
 - iii. A graphical presentation of groundwater gradient, direction of flow, and flow rate for the deep and shallow groundwater zones;
 - iv. Laboratory reports;
 - v. An evaluation of the effectiveness of leachate monitoring and control facilities;
 - vi. A summary and certification of all Standard Observations for the disposal units;
 - vii. A landfill gas report describing the results of monitoring, distribution of gas concentrations, evaluation of effectiveness, and system shut down information; and
 - viii. A discussion of the effectiveness of the Corrective Action Program including current and historical data and trends, and operational information from the GWETS.

1.13.7 In addition to the above elements, Consultant shall include in the Annual Monitoring Summary Report the following:

- a. Trend graphs for all monitoring parameters and COCs over time;
- b. Tabulated historical data including both field and laboratory data;
- c. A comprehensive compliance record and any corrective actions that were implemented or are planned;
- d. A written narrative of the monitoring results; and
- e. A comprehensive evaluation of the effectiveness of the Corrective Action Program.

1.13.8 As part of the quarterly and annual reports, Consultant shall perform statistical evaluation of the site monitoring data in accordance with current state guidelines. Wherever possible, Consultant shall identify opportunities for reductions in sampling frequencies, monitoring points, and/or analytical testing without sacrificing the integrity of the site monitoring networks. Consultant shall discuss these opportunities with the County and provide recommendations regarding the long term benefits to the County in implementing any program changes. With the County's concurrence, Consultant shall include these recommendations in the final reports presented to the RWQCB.

1.14. NPDES Storm Water Pollution Prevention

1.14.1 At the request of the County the Consultant shall assist the County in the preparation of the National Pollutant Discharge Elimination System (NPDES) Storm Water Pollution Prevention Plan (SWPPP) Report (Annual Report for Storm Water Discharges Associated with Industrial Activities, via the SMARTS system) due July 1st of each year and the Winterization Report (Landfill Facility Inspection Report) due November 15th of each year as required by the RWQCB. County staff shall determine the extent of assistance needed, if any.

1.14.2 Surface water run-on to the landfill is controlled by perimeter ditches that channel water around the landfill to the sedimentation pond (basin) at the southern end of the site. Surface water run-off from the site, due to precipitation, is also controlled by the perimeter collection channels and central drainage down the paved road to the sedimentation pond. Note: County's personnel annually inspects all onsite storm water conveyance systems and if necessary, coordinates repair of all onsite storm water conveyance systems. If Consultant is requested by the County to make repairs to the system, the Work shall be in accordance with the Amended and Restated Master Agreement Section 1 and Section 2.3 et seq., and shall be authorized under a separate Project Authorization. If the

repairs exceed the limits set forth in Section 1.5 of the Amended and Restated Master Agreement, the work shall not be performed under this Agreement. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.

1.15 Surface Emissions Monitoring

1.15.1 In accordance with the San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 4642, and the Landfill Methane Rule, Consultant shall perform instantaneous and integrated surface emissions monitoring (SEMs) on a quarterly basis. The entire 144 surface acres of the disposal area of the landfill shall be monitored. Consultant shall obtain instantaneous measurements of total organic compound (TOC) concentrations immediately above the surface of the grids using a portable flame ionization detector (FID) that meets typical Title V specifications. Consultant's field staff shall hold the probe of the FID within 5 to 10 centimeters of the landfill surface while traversing the monitoring grids. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.

1.15.2 Consultant shall conduct meteorological monitoring in conjunction with the various sampling procedures requiring validation of wind direction and/or wind speed. Consultant shall perform surface monitoring 72 hours after the latest rainfall and when the average wind speed is less than 5 miles per hour and instantaneous winds speeds remain below 10 miles per hour.

1.15.3 After each monitoring event, Consultant shall prepare a brief letter report for submittal to the County. The report shall detail equipment calibration procedures, sample locations and results of emissions testing along with any recommendations for further action. Note that APCD Rule 4642 requires that the County maintain and make the report (and all other Rule compliance records) available to the APCD upon request.

1.15.4 If the monitoring results of the past events at the Landfill allow the reduced frequency in the monitoring of surface emissions from the Landfill, Consultant shall adjust accordingly the frequency in the monitoring of surface emissions required. Consultant shall report the information collected during this surface emission monitoring to the County in a written report within 30 days of the monitoring event. Consultant shall notify the County within 24 hours of identification, if exceedances of the regulatory requirement are observed.

1.15.5 Inspections, calibration, remediation, flagging, compacting, etc., work associated with this task shall be performed under a separate Project Authorization, in accordance with Section 1 and Section 2.3 et seq., of the Amended and Restated Master Agreement. This includes the following tasks:

1.15.5.1 Consultant's Field staff shall perform surface inspections during instantaneous surface monitoring to identify cracks or fissures in the landfill cover that could act as potential pathways for LFG to escape to the atmosphere. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.

1.15.5.2 If Consultant observes and identifies exceedances of the regulatory requirement, the Consultant shall then perform, under a separate Project Authorization, adjustments to the landfill gas collection system in an effort to mitigate the surface emissions in accordance with Section 1 and Section 2.3 et seq., of the Amended and Restated Master Agreement. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement

shall not be performed under this Agreement.

1.16. Leak Monitoring at the Blower Flare Station (BFS)

1.16.1 In accordance with the state mandated Landfill Methane Rule (LMR), Consultant shall examine on a quarterly basis the positive pressure side of the blowers. Leak monitoring of the pressurized piping or components of the GCCS that are under positive pressure is required to be conducted in accordance with the state mandated LMR. Consultant shall examine on a quarterly basis the positive pressure side of the blowers.

1.16.2 Consultant shall submit a written summary form to the County for their records after each event.

1.16.3 Inspections, calibration, remediation, repair work etc., associated with this task shall be performed under a separate Project Authorization, in accordance with Section 1 and Section 2.3 et seq., of the Amended and Restated Master Agreement. This includes the following tasks:

1.16.3.1 If exceedances of the requirements are observed by the Consultant, the area that is leaking is identified and corrective action is performed by Consultant to repair the area of concern. Consultant shall immediately notify the County and provide the County with a written proposal detailing the scope of work needed to perform corrective action. The proposal shall include costs for prevailing wage work. The work proposed shall be in accordance with Section 1 and Section 2, Item 2.3 et seq., of the Amended and Restated Master Agreement and authorization to perform the work shall be under a separate Project Authorization issued for Maintenance/Non-routine work.

1.17 Non-Methane Organic Compound (NMOC) Testing

1.17.1 The Geer Road Landfill is currently a New Source Performance Standard (NSPS) exempt site. This exemption is due to the Tier II analyses that have been performed in accordance with 40 Code of Federal Regulations (CFR) 750 Subpart WWW.

1.17.2 Where applicable, Tier 2 NMOC emissions testing must be completed in the frequency required by the Title V permit and/all other State and Federal requirements. This testing, and the corresponding report, were last completed in June 2011. Tier II analysis is required by June 2016 therefore, the fee for this service is not included in this Project Authorization.

1.17.3 Should the County and the Consultant agree to renew this Agreement, the Tier II analysis shall be performed by the Consultant in accordance with the NSPS standards. Consultant shall provide the County a written proposal that includes the scope of work and project cost to perform this analysis. The County shall either issue an amendment to an existing Project Authorization or a new Project Authorization for Consultant to perform the work. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.

1.18. EPA and LMR Greenhouse Gas Annual Reporting

1.18.1 Both the EPA and the California Air Resources Board (CARB) require monitoring and reporting of greenhouse gas emissions from municipal solid waste landfills. Consultant shall use personnel who have extensive knowledge of the state and federal regulations for the completion of the greenhouse gas annual reporting for both the EPA and CARB.

1.18.2 These reports are due annually in March.

1.19. Source Testing and Methane Destruction Efficiency Testing

1.19.1 Source testing and/or methane destruction efficiency testing shall be performed as required by the San Joaquin Valley Air Pollution Control District (SJVAPCD) Permit Number N-3104 and any/all other applicable State and Federal regulations. Source testing is currently scheduled for June 2012 and must be conducted annually. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.

1.19.2 Consultant shall annually conduct, source testing on the control system at the Geer Road Landfill through Consultant's subcontractor. This source testing shall be performed in accordance with the Landfill's Permit to Operate and SJVAPCD regulations. Consultant's experienced engineer shall perform oversight of their subcontractor performing the Source Testing. Consultant shall provide to the County, at least 30 days advance notice, of their intent to perform Source Testing. Consultant shall develop and submit testing protocols with the assistance of any subcontractors that shall be selected for the laboratory analysis portion of the Source Test.

1.19.3 The APCD shall be notified at least 30 days in advance of the tests. Testing protocols for the source tests shall be submitted to the agency 15 days prior to the work.

1.19.4 A report summarizing the findings of the respective source tests shall be submitted to the APCD and the County within 60 days of completion of the fieldwork.

1.20 Title V Semi-Annual Reports of Required Monitoring (RRM) and Annual Compliance Certification (COC)

1.20.1 The Title V Semi-Annual RRM and the Annual COC report are required by the San Joaquin Valley Air Pollution Control District every June 30 and December 31 for the RRM and every June 30 for the COC.

1.20.2 Consultant shall develop both the Title V Semi-Annual RRM and the Annual COC report at least three (3) weeks in advance of the deadlines (June 30 and December 31) for review by the County in an effort to prevent delayed reporting. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.

1.21 Landfill Gas Extraction System Performance Monitoring

1.21.1 Consultant shall perform Landfill Gas Extraction System Performance Monitoring to monitor the effectiveness of the gas extraction system as required by the WDRs/MRP and any/all applicable State and Federal requirements.

1.21.2 Consultant shall utilize a multiple step process for the monitoring as outlined below. Consultant's adjustment of the landfill gas collection system shall be performed under a separate Project Authorization in accordance with Section 1 and Section 2, Item 2.3 et seq., of this Amended and Restated Master Agreement.

- a. Consultant's technicians shall perform an initial monitoring of the landfill gas collection system extraction components following Consultant's standard operating procedures (SOP);
- b. Perform weekly follow-up monitoring of the probe;
- c. Consultant shall monitor the perimeter monitor probe network consisting of 77 perimeter monitoring probes constructed to varying depths;
- d. The results of this initial round of monitoring are provided to the Consultant's engineering staff, who reviews the results; and
- e. The Consultant's engineering staff shall recommend adjustments based on numerous criteria including the gas composition, the ratio of specific compounds, the flow rate of the well and other key criteria. Such adjustments shall be performed under a separate Project Authorization.

1.21.3 During these monitoring events, Consultant shall record numerous items for both regulatory compliance and to assist in tuning compliance. The following list includes the minimum items that are included on the monitoring forms completed by the Consultant's technician and approved by the Consultant's engineering staff:

- a. Landfill gas composition;
- b. Weather conditions;
- c. Atmospheric temperature;
- d. Atmospheric pressure;
- e. Landfill gas temperature;
- f. Initial and adjusted static pressure in the wellhead;
- g. Landfill gas flow rate; and
- h. Vacuum availability.

1.21.4 Consultant shall monitor the landfill gas collection system, in excess of the minimum required once per month basis, to continue the optimization of the landfill gas collection system to reduce the potential groundwater contamination. The monitoring of the landfill gas collection system shall consist of monitoring 98 vertical landfill gas extraction wells on a bi-weekly basis. The quantity of the vertical landfill gas extraction wells may increase or decrease throughout the term of this Agreement. This approach has been successful as the vinyl chloride concentrations in numerous vadose zone extraction wells has decreased significantly. By maintaining the frequency of the monitoring of the collection system, the improved vadose zone vinyl chloride concentration is expected to continue.

1.21.5 Consultant shall ensure the extraction system is operating at the optimal conditions for the existing equipment at the Landfill. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed under a separate project authorization. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.

1.22 Health and Safety Plan

1.22.1 Prior to initiation of any field activities involving monitoring, sampling, testing/analyzing and reporting performed under this Project Authorization; Consultant shall provide the County with a comprehensive Site Specific Health & Safety Plan (HSP) that complies with current OSHA and Cal-OSHA standards. The Site Specific HSP shall identify key project health and safety personnel and their responsibilities. It shall further identify the physical, chemical, and biological hazards associated with performing the prescribed scope of work at the project site, and provide measures that shall be undertaken to mitigate these hazards. Finally, the Site Specific HSP shall include an emergency response plan and the location of the designated emergency clinic in the event of a health and safety incident at the site. The Site Specific HSP shall be evaluated and updated on an annual basis.

1.23 Regulatory Meetings

1.23.1 Given the current regulatory status and high priority of this site to both the County and the RWQCB, it is anticipated that meetings with the RWQCB shall be required throughout the performance period of this Agreement. Consultant shall attend a total of four (4) regulatory meetings per year through the duration of this Agreement. Consultant shall assume that two (2) meetings would take place in the Sacramento Area and two (2) meetings would take place in the Stanislaus County area. During these meetings, Consultant shall provide the County with technical support in presenting the current site status, the progress of the various activities at the site, and any planned activities. Consultant shall also prepare various meeting agendas, overview documents, graphical representations of analytical data and prepare meeting minutes. Each of these meetings shall be attended by the Consultant's principal-in-charge and/or a Project Manager, Program Manager and either the Consultant's Groundwater Project Manager or the Consultant's Landfill Gas Project Manager in support of the County.

C. Project Timeline

Consultant staff shall utilize the general maintenance schedules as shown below. Consultant understands that these schedules are not comprehensive and that both the County and the Consultant shall revise the schedule based on a thorough study of the equipment in place, recommendations by the equipment manufacturers, and relevant wear patterns determined by the site visit and records review. Listed below are general maintenance tasks and frequencies to be performed at each of the sites.

Parameter	Frequency
Leachate Monitoring	
Monitor LW-1 and LW-2	Quarterly
Groundwater Monitoring	
Group I Wells	Quarterly
Group II Wells	Semi-Annually
Streeter Property wells	Quarterly
Pinewood Meadows wells	Quarterly
COCs	Every Five Years
Groundwater Elevation	Quarterly
Groundwater Flow	Quarterly
Surface Water Monitoring	
Storm water Monitoring	1 st Storm Event plus 1 Other Storm Event
Sedimentation Basin / River Monitoring	
Sedimentation Basin Monitoring	Quarterly
Tuolumne River Monitoring	Quarterly
GWETS Monitoring	
GWETS Inspection	Weekly
Extraction Wells	Weekly
Pumps	Weekly
Influent Water Sampling	Every 40 Days
Landfill Gas Monitoring	
LFG Plant Monitoring	Monthly (Weekly Recommended)
Extraction Well Monitoring	Monthly (Bi-weekly Recommended)
Perimeter Probe Monitoring	Monthly
LFG Plant Analysis	Semi-Annually
RWQCB Extraction Well Analysis	Semi-Annually
Plant Run-Time Calculation	Annually (Continuous Recommended)
Volume of LFG Treated Calculation	Annually (Continuous Recommended)
Surface Emissions Monitoring	
Instantaneous Monitoring	Dependent on Approved Alternative
Integrated Sampling	Dependent on Approved Alternative
Leak Monitoring	
Leak Monitoring at LFG Plant	Quarterly

NMOC Testing	
Tier II Analysis	Every 5 Years
EPA and LMR Greenhouse Gas Reporting	
EPA Reporting	Annually
LMR Reporting	Annually
Source Testing and Methane Destruction Efficiency Testing	
Source Testing / CH4 Destruction Testing	Annually
Title V RRM and COC	
Reports of Required Monitoring (RRM)	Semi-Annually
Certification of Compliance (COC)	Annually
Landfill Gas Extraction System Performance Monitoring	
Performance Monitoring	Continuous

D. Project Authorization Period

Services shall commence on or about January 1, 2013, and continue until **December 31, 2015**, or until all work let during this period is completed, unless previously terminated as provided herein or as otherwise agreed to in writing by the parties.

E. Compensation

The Consultant shall be compensated for the services provided under the Agreement and this scope of work as follows:

1. Project Price

1.1 The below project total is devised to allow the County the ability to identify costs associated with this Project Authorization’s Scope of Work. The Consultant shall be compensated on a time and material basis, based on the rates set forth in the Amended and Restated Master Agreement Exhibit “C” – Fee Schedule not to exceed the total amount listed below which includes Work identified in the Amended and Restated Master Agreement Exhibit “C” – Fee Schedule, Sections 1.6 and 1.7.1. The maximum project total includes fees and reimbursable expenses that have been agreed to by both parties in accordance with the Amended and Restated Master Agreement Exhibit “C” – Fee Schedule. The County shall not reimburse for fax, phone, postage or copies and other items as identified in Exhibit “C” – Fee Schedule.

1.2 PROJECT TOTAL: \$2,242,742.00

*Note: Invoices submitted for cost under the above categories shall be in accordance with this Amended and Restated Project Authorization and Amended and Restated Master Agreement Exhibit “C”.

F. Payment and Invoicing

1. The terms of payment are Net 30 days after approval of the invoice.
2. 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. Consultant shall be compensated for services rendered and accepted under this Agreement and shall be paid monthly, in arrears, on a time and material basis not to exceed the per task totals for work performed and services provided.
3. The County shall pay the Consultant 30 days after approval of the invoice.

Invoices shall be mailed or delivered to the Department indicated below. The remit to address is:
 Stanislaus County
 Department of Environmental Resources Landfill
 Attention: Jami Aggers
 3800 Cornucopia Way, Suite C

Modesto, California 95358

G. Representatives

The County's representatives are Jami Aggers, (209) 535-6768 and Gerry Garcia, (209) 837- 4816. The Consultant's representatives are Bryan Stirrat as the primary contact, Lee Daigle as Landfill Gas contact and Greg Acosta as the Groundwater contact.

H. Professional Services

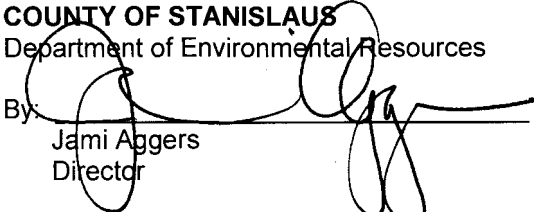
All professional services to be provided by Consultant pursuant to this Agreement shall be provided by personnel experienced in their respective fields and in a manner consistent with the standards of care, diligence and skill ordinarily exercised by professional consultants in similar fields and circumstances 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.

I. 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.

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Project Authorization Number 13-001AR-SMG on January 9, 2015.

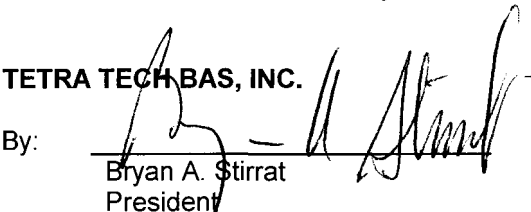
COUNTY OF STANISLAUS
Department of Environmental Resources

By: 

Jami Aggers
Director

"County"

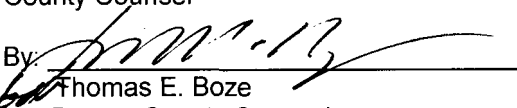
TETRA TECH BAS, INC.

By: 

Bryan A. Stirrat
President

"Consultant"

APPROVED AS TO FORM:
John P. Doering
County Counsel

By: 

Thomas E. Boze
Deputy County Counsel



DEPARTMENT OF ENVIRONMENTAL RESOURCES
3800 Cornucopia Way, Suite C, Modesto, CA 95358
Phone: (209) 525-6770
Fax: (209) 525-6773

**AMENDED AND RESTATED PROJECT AUTHORIZATION
Project Number 13-002AR-SMG**

For

Implementation of the New Report of Waste Discharge at Geer Road Landfill

WHEREAS, as of December 11, 2012, (the "Effective Date") the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant") have entered into a certain Agreement relating to the provisions of monitoring, sampling and reporting services (the "Original Master Agreement"); and

WHEREAS the original *Master Agreement for Professional Design Services* number A101412 entered into on December 11, 2012, was amended and restated under Agreement number A101412AR on Jan. 6, 2015; and

WHEREAS, the County has a need, on an "as needed basis", for Prevailing Wage Work for maintenance, surveying, construction oversight, repairs, non-routine service calls, and emergency services and the Original Agreement failed to recognize that work requiring the payment of Prevailing Wage would be required under the Agreement; and

WHEREAS, as of June 27, 2013, (the "Project Authorization Effective Date") the County and Consultant have entered into a certain Project Authorization Agreement relating to the Implementation of the New Report of Waste Discharge (the "Original Project Authorization"); and

WHEREAS, the Consultant prepared and submitted a verification Testing Work Plan to perform aquifer testing of wells along the proposed alignment of the new GWETS; pilot scale aeration channel testing to demonstrate the effectiveness of this treatment technology; and percolation testing within the Triangle Ranch Property to allow for proper design of the infiltration design for the new GWETS which was billed under original PA 13-001-SMG; and

WHEREAS, the preliminary design for the new GWETS is complete and billed under the original PA 13-001-SMG and the final design shall be completed under this Amended and Restated PA 13-002AR; and

WHEREAS, Tasks 2 and 3 have been completed under the original Project Authorization 13-002-SMG; and

WHEREAS, certain work in Tasks 4 and 5 of the original Project Authorization 13-002-SMG have been completed and billed under the non-routine services in original PA 13-001-SMG; and

WHEREAS, certain work in Tasks 1, 4, 5 and 6 under the original Project Authorization 13-002-SMG remain to be completed; and

WHEREAS, of the \$86,500 total not to exceed amount authorized under the original Project Authorization PA 13-002-SMG and under this Amended and Restate Project Authorization, \$71,121 has been spent as of the signing of this Document; and

WHEREAS, both parties desire to Amend and Restate the original Project Authorization number 13-002-SMG to be consistent with the Amended and Restated Master Agreement; and

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

A. Terms and Conditions

Except as hereinafter provided, the services provided by the Consultant under this Amended and Restated Project Authorization, shall be subject to the terms and conditions set forth in the *Amended and Restated Project No. 13-002AR-SMG*

Restated Master Agreement for Professional Design Services number A101412AR and its Exhibits 1, C and D made and entered into by and between the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant"), on January 10, 2015.

B. Scope of Work

Consultant shall provide all of the labor, materials, equipment, supplies and supervision to perform services associated with the implementation of the new Report of Waste Discharge for the Geer Road Landfill. The work shall include 1) preparation for the attendance of meetings with the Central Valley Regional Water Quality Control Board (RWQCB) regarding the recently submitted Report of Waste Discharge (ROWD) and Plume Investigation Report (PIR); (2) support of the County's cost recovery for the site; and (3) implementation of the activities described in the County's March 15, 2013, letter to the RWQCB regarding additional activities being performed. Prevailing wage work, including performing corrective action maintenance, implementation of corrective action, adjusting, implementation of remedial action, calibrating, cleaning, surveying, construction oversight, flagging, repairing, installing, etc., as identified in Section 1 and Section 2, Item 2.3 et seq., of the Amended and Restated Master Agreement, shall be performed under a separate project authorization. Work as described Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement. The specific Tasks for work covered under this Agreement include:

TASKS

1. Meetings with the RWQCB or locally as needed
2. Cost Recovery Support
3. Sampling and Analysis of Background Groundwater Well
4. Preparation of a Verification Testing Work Plan
5. Evaluation of Triangle Ranch Monitoring Well
6. Preparation of Updated ROWD

Additional activities were included in the March 15, 2013, letter to the RWQCB. However, the specific scope of work for these items is subject to concurrence from the RWQCB, which is currently pending. The following describes each of the above listed tasks in greater detail.

TASK 1 – Meetings with the RWQCB or locally as needed

Consultant prepared and provided a presentation on February 26, 2013, which was billed and paid for under the original Project Authorization (PA) 13-001-SMG, to the RWQCB containing a detailed summary of the past 18 months of activities providing landfill gas system upgrades, a review of the updated groundwater numerical model, and a description of the proposed groundwater and/or landfill gas corrective action approach. The presentation incorporated responses to preliminary feed-back received by the County from the RWQCB regarding the ROWD and PIR. Under this Amended and Restated Project Authorization, Consultant shall also attend additional RWQCB or local meetings as needed in support of the ROWD implementation.

TASK 2 – Cost Recovery Support

Consultant shall meet with and provide support to the County's attorneys (Brown & Winters) in their ongoing cost recovery activities. The exact nature of the support activities required under this Task shall include but not be limited to attendance with periodic meetings; participation in conference calls; gathering, reproducing and distributing reports, work plans, invoices and other supporting documents; and at least one site visit. This is necessary to explain the nature of the needed work to assist in the determination of whether the expenses will be covered under the County's insurance.

TASK 3 – Sampling and Analysis of Background Groundwater Well

In April 2013, Consultant mobilized to the site to conduct routine groundwater sampling of existing background wells MW-24S and MW-24D which was billed and paid for under the original PA 13-001-SMG. Consultant collected samples in accordance with the established protocols for the site and Consultant analyzed the samples consistent with the current monitoring reporting program. Consultant used the data from this sampling to establish proposed Water Quality Protection Standards for the site, which shall be included in the updated ROWD. In order for Consultant to develop a statistical baseline for developing water quality protection standards appropriate for the Geer Road Landfill, eight data points were required. This Task was performed to establish the eight data points for the First Semi-Annual Groundwater Monitoring Report for 2013 which is due July 31, 2013. Under this Amended and Restated Project Authorization, it is assumed an

interim technical memorandum regarding the proposed Standards shall be prepared prior to ROWD submittal, and that a meeting shall take place with the RWQCB and the County regarding this topic.

TASK 4 – Preparation of a Verification Testing Work Plan

In accordance with the County's March 15, 2013, letter to the RWQCB, the Consultant prepared and submitted a verification Testing Work Plan to perform aquifer testing of wells along the proposed alignment of the new GWETS; pilot scale aeration channel testing to demonstrate the effectiveness of this treatment technology; and percolation testing within the Triangle Ranch Property to allow for proper design of the infiltration design for the new GWETS, which was billed and paid for under the original PA 13-001-SMG. The work plan was submitted for County review and comment, and was subsequently submitted to the RWQCB. Under this Amended and Restated Project Authorization, it is anticipated that comments will be received from the RWQCB, which shall be addressed and a final work plan submittal provided. Also included in this task is a meeting with the RWQCB and County to review the proposed scope of work, and development of an implementation schedule for submittal to the County and the RWQCB. Implementation of the activities described in the work plan shall be covered under a separate agreement.

TASK 5 – Evaluation of Triangle Ranch Monitoring Well

Consultant reviewed past data with regard to hydrogeology and groundwater quality, and provided a technical memorandum to the County for submittal to the RWQCB regarding the justifications for not installing a new monitoring well along the north boundary of the Triangle Ranch Area. A memorandum was provided to the County for review prior to submittal to the RWQCB which was billed and paid for under the original PA 13-001-SMG. Under this Amended and Restated Project Authorization, it is anticipated that the RWQCB will have questions or comments to the memorandum and that a meeting or other Consultant staff time may be required for this task to respond to those questions or comments either in person or in writing.

TASK 6 – Preparation of Updated ROWD

Under this Amended and Restated Project Authorization, based on the results of Tasks 3 through 5, and implementation of the Verification Testing Work Plan, Consultant shall provide an updated ROWD for submittal to the RWQCB. The implementation of the Verification Testing Work Plan, including oversight of the installation, shall be performed under a separate agreement. Prevailing wage work, including performing corrective action maintenance, implementation of corrective action, adjusting, implementation of remedial action, calibrating, cleaning, surveying, construction oversight, flagging, repairing, installing, etc., as identified in Section 1 and Section 2, Item 2.3 et seq., of the Amended and Restated Master Agreement, shall be performed under a separate agreement. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement. In addition to the elements of the ROWD provided to the RWQCB on December 27, 2012, the updated ROWD shall include:

- a. Proposed Water Quality Protection Standards for all organic and inorganic compounds based on the newly established background statistical baseline.
- b. A more detailed new GWETS design, which shall include a basis of design supported by the updated Groundwater Numerical Model.
- c. The Landfill Gas System performance criteria for system expansion.
- d. Revised financial assurances

Consultant shall submit to the County an updated ROWD for review and comment. Consultant shall incorporate the County comments, and a final version of the Updated ROWD shall be submitted to the RWQCB by the County.

C. Project Timeline

The project timeline for the TASKs described are as follows:

TASK 1: Completion of RWQCB meeting on February, 26, 2013, which was billed separately under original PA 13-001-SMG. Other local meetings would be completed by January 31, 2014.

TASK 2: Completion by January 31, 2014. Completion is contingent on the progress of the County's cost recovery efforts.

TASK 3: Completion by June 28, 2013.

TASK 4: Completion by June 28, 2013. Completion is contingent on the RWQCB response to County.

TASK 5: Completion is dependent on RWQCB timeliness in responding with comments. Anticipated completion is June 28, 2013.

TASK 6: Completion is dependent on RWQCB timeliness in responding with comments other items. Anticipated completion is January 31, 2014

D. Project Authorization Period

Services shall commence on June 1, 2013, and continue until January 31, 2014, or upon completing the agreed upon services.

E. Compensation

The Consultant shall be compensated for the services provided under this Agreement and this scope of work as follows:

1. Project Price

1.1 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 project. The Consultant shall be compensated on a time and material basis, based on the rates set forth below and in the Amended and Restated Master Agreement to perform the work associated with each task, not to exceed the amounts listed below. Maximum Total Task Price includes fees and reimbursable expenses that have been agreed to by the both parties in accordance with the Amended and Restated Master Agreement Exhibit C – Fee Schedule. The County shall not reimburse for fax, phone, postage or copies and other items as identified in Amended and Restated Master Agreement Exhibit C – Fee Schedule. The County shall not pay a mark up on travel expenses and items identified in the Amended and Restated Master Agreement.

1.2 A Summary of the Project fees is below:

TASK	DESCRIPTION	NOT TO EXCEED LIMIT
1	Meetings with the RWQCB or locally as needed	\$5,000
2	Cost Recovery Support	\$15,000
3	Sampling & Analysis of Background Groundwater Well	\$ 4,000
4	Preparation of a Verification Testing Work Plan	\$30,000
5	Evaluation of Triangle Ranch Monitoring Well	\$ 2,500
6	Preparation of Updated ROWD	\$30,000

1.3 PROJECT TOTAL: \$86,500.00

*Note: Invoices submitted for cost under the following categories shall be in accordance with this Amended and Restated Project Authorization and Amended and Restated Master Agreement Exhibit C.

F. Payment and Invoicing

1. 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. Consultant shall be compensated for services rendered and accepted under this

Agreement and shall be paid monthly, in arrears, on a time and material basis not to exceed the per task totals for work performed and services provided.

- 2. The County shall pay the Consultant 30 days after approval of the invoice.

Invoices shall be mailed or delivered to the Department indicated below. The remit to address is:

Stanislaus County
Department of Environmental Resources Landfill
Attention: Jami Aggers
3800 Cornucopia Way, Suite C
Modesto, California 95358

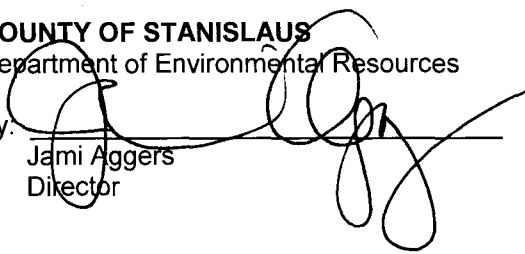
G. Representatives

The County's representatives are Jami Aggers, (209) 535-6768 and Gerry Garcia, (209) 837- 4816. The Consultant's representatives are Bryan Stirrat as the primary contact, Lee Daigle as Landfill Gas contact and Greg Acosta as the Groundwater contact.

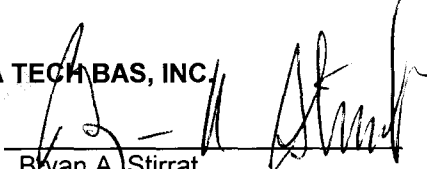
H. Counterparts

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.

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Project Authorization Number 13-002AR-SMG on January 9, 2015

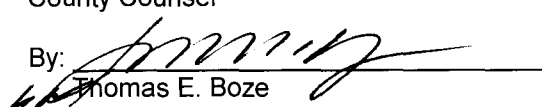
COUNTY OF STANISLAUS
Department of Environmental Resources
By: 
Jami Aggers
Director

"County"

TETRA TECH BAS, INC.
By: 
Bryan A. Stirrat
President

"Consultant"

APPROVED AS TO FORM:
John P. Doering
County Counsel

By: 
Thomas E. Boze
Deputy County Counsel

DEPARTMENT OF ENVIRONMENTAL RESOURCES
3800 Cornucopia Way, Suite C, Modesto, CA 95358
Phone: (209) 525-6770
Fax: (209) 525-6773



**AMENDED AND RESTATED PROJECT AUTHORIZATION
Project Number 13-003AR-SMG**

For

Landfill Gas Collection and Control System Expansion Design at Geer Road Landfill

WHEREAS, as of December 11, 2012, (the "Effective Date") the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant"), have entered into a certain Agreement relating to the provisions of monitoring, sampling and reporting services (the "Original Master Agreement"); and

WHEREAS the original *Master Agreement for Professional Design Services* number A101412 entered into on December 11, 2012, was amended and restated under Agreement number A101412AR on Jan. 6, 2015; and

WHEREAS, the County has a need, on an "as needed basis", for Prevailing Wage Work for maintenance, surveying, construction oversight, repairs, non-routine service calls, and emergency services and the Original Agreement failed to recognize that work requiring the payment of Prevailing Wage would be required under the Agreement; and

WHEREAS, as of August 1, 2013, (the "Project Authorization Effective Date") the County and Consultant have entered into a certain Project Authorization Agreement relating to the provision of the Landfill Gas Collection and Control System Expansion Design services (the "Original Project Authorization"); and

WHEREAS, of the \$130,898 total not to exceed amount authorized under the original Project Authorization PA 13-003-SMG and under this Amended and Restate Project Authorization, \$130,276.13 has been spent as of the signing of this Document; and

WHEREAS, both parties desire to Amend and Restate the Original Project Authorization number 13-003-SMG to be consistent with the Amended and Restated Master Agreement; and

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

A. Terms and Conditions

Except as hereinafter provided, the services provided by the Consultant under this Amended and Restated Project Authorization shall be subject to the terms and conditions set forth in the *Amended and Restated Master Agreement for Professional Design Services* number A101412AR and Exhibits 1, C and D made and entered into by and between the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant"), on January 6, 2015

B. Background

The Geer Road Landfill is located approximately 10 miles southeast of the City of Modesto in Stanislaus County, on the northern bluff of Tuolumne River in central Stanislaus County. The 167-acre site is jointly owned by Stanislaus County and the City of Modesto. It is classified as a Class III landfill and is currently closed.

When the landfill was in active operation, it was operated by the Stanislaus County Department of Public Works, and accepted municipal and cannery wastes from November 1970, until July 1990. The site operated as an area/trench fill sanitary landfill between 1970 and 1990. Approximately 144 acres (footprint) were used for refuse disposal. An estimated 4.5 million tons of municipal solid waste was disposed of at the site. The maximum depth of refuse is estimated to range between 50-60 feet. The Stanislaus County Department of Environmental Resources

currently maintains the landfill as a closed facility.

The site is within a meander bend of the Tuolumne River. The landfill was capped in 1995 with a final cover system, a geomembrane on the top deck and clay on the side slopes. The final cover is a modified California Title 23, Chapter 15 design. The top deck cover (approximately 51 acres) consists of a 1-foot foundation layer overlain by a 60-mil High Density Polyethylene (HDPE) geo-membrane that is protected by a 1-foot thick vegetative cover layer. The side-slope has a 1-foot clay barrier in place of the HDPE. The cap was installed to divert rainfall from the landfill waste and to reduce the generation of leachate. A landfill gas (LFG) extraction system was installed in two (2) phases, with two (2) well fields covering the site, in 1992 and 1995.

On April 24, 2009, the Regional Water Quality Control Board (RWQCB) issued new Waste Discharge Requirements (WDR) and associated Monitoring and Reporting Program (MRP) Order Number R5-2009-0051 for the Geer Road Landfill. The County was in the process of complying with the requirements of the new WDRs when on April 8, 2011, the RWQCB issued a Cease and Desist Order R5-2011-0021 to the County, which required that the County optimize the existing LFG collection and control system and submit a LFG Extraction System Optimization Report by September 30, 2011. On April 8, 2011, the RWQCB also issued a revised MRP Order Number R5-2011-0022.

On December 9, 2010, the County contracted with Meyers Nave Riback Silver & Wilson, to provide legal advice related to the Geer Road Landfill Cease and Desist Order. Meyers Nave Riback Silver & Wilson, retained Bryan A. Stirrat and Associates on behalf of the County to review existing site data and conduct certain environmental investigations, and develop remedial recommendations for the site. On May 18, 2011, Bryan A. Stirrat and Associates recommended certain remedial action be taken by the County.

Under a previous Master Agreement Number A072711, two (2) Project Authorizations (PA 11-002 and PA 12-002) authorized Tetra Tech BAS to perform what was designated as Phase I and Phase II repairs to optimize the existing LFG collection and control system at the County's Geer Road Landfill to help control LFG migration. On August 18, 2011, (the commencement date) Phase I repairs included the regrading of landfill gas header lines to allow proper drainage of condensate throughout the system. This provided sufficient vacuum throughout the entire landfill gas collection and control system (GCCS). Furthermore, under previous Master Agreement Number A072711, PA 11-003 and 12-002, repairs were performed on numerous components including the UV sensor at the flare stack, the condensate injection system, and the condensate storage tank, including the replacement of the condensate injection pump. The completion of the Phase I repairs enabled the system to be brought to operational status and allowed the GCCS system to be optimized. Tetra Tech BAS was authorized under Professional Design Services Agreement Number A091511 dated September 22, 2011, to prepare a LFG Extraction System Optimization Report and submit to the County.

On May 16, 2012, (the commencement date) Phase II repairs included further header line regrading and stabilization, replacement and standardization of condensate pumps, replacement of numerous vertical extraction wellheads, replacement of the flare station's programmable logic controller (PLC), and repair or replacement of additional ancillary components. The completion of these activities further improved overall system performance.

A Vadose Zone Investigation was also concurrently performed during the Operations, Monitoring and Maintenance (OMM) of the GCCS at the Landfill. This investigation was performed to determine the impact on the vadose zone through the operation of vadose zone extraction wells with a reduced vacuum. The results of this investigation were summarized in two reports that were submitted to the Regional Water Quality Control Board (RWQCB) in July and October 2012. The results indicated that the operation of the vadose zone extraction wells with a minimal vacuum was positively impacting the vadose zone; meaning the concentrations of landfill gas significantly decreased with the reduction in vacuum applied to the system. At a meeting on November 14, 2012, the RWQCB informed the County that the request submitted in the summary reports to suspend the operation of the vadose zone wells had been declined. The RWQCB stated that in order to remove the vadose zone extraction wells from the active GCCS, replacement wells would be required.

On December 28, 2012, a Report of Waste Discharge was submitted to the RWQCB. The Report included a recommendation to install a 20 vertical landfill gas (LFG) extraction well expansion in order to satisfy regulatory requirements. This recommendation is also consistent with the discussion and direction received from the RWQCB during the February 26, 2013, meeting between the County and the RWQCB. The following Scope of Work identifies the Work covered under this Project Authorization.

C. Prevailing Wage

Prevailing Wage Laws as defined in Section 1720 of the California Labor Code, et seq., and 1770 et seq., as well as California Code of Regulations, Title 8, Section 16000 et seq., (“Prevailing Wage Laws”), require the payment of prevailing wage rates and the performance of other requirements on certain “public work” and “maintenance” projects. This shall include certain work performed during the design and preconstruction phase of construction including, but not limited to, inspection and land surveying work.

D. Scope of Work

Consultant shall provide all of the labor, materials, and supervision to perform services associated with the design of the LFG Collection and Control System Expansion (GCCS) for the Geer Road Landfill. The scope of services shall consist of the engineering design and preparation of 100% contract documents consisting of, but not limited to, plans, specifications, cost estimates, GPS Survey and bid assistance for this project. Consultant shall coordinate each submittal with the County and any other agency that might have a stake in the project. The specific Tasks for work covered under this Agreement include:

TASKS

1. Assessment of Existing GCCS
2. Permitting and Regulatory Coordination
3. Preliminary 60% Design
4. Secondary 90% Design
5. Construction Documents
6. Bid Assistance

TASK 1 – Assessment of Existing GCCS

1.1 Consultant shall perform an expanded review of the data collected from the existing extraction wells since August 2011, to determine areas where there is an insufficient concentration of extraction wells and identify optimal locations for the new wells. Consultant shall re-examine the data and results of the Vadose Zone Investigation to determine where an appropriately designed and constructed extraction well can be located to satisfy the requirements of the RWQCB. Consultant shall also identify the remaining 24 vertical extraction wells that have yet to have new wellheads installed. These wellheads shall be replaced during this expansion of the GCCS. Consultant shall examine the condensate sumps at the Geer Road Landfill and identify which, if any, of the condensate sumps should be replaced. The information collected by the Consultant during this Task is critical to prevent either an over-design or under-design of the upcoming expansion of the GCCS. Consultant shall summarize this information in a memorandum and submit to the County. This memorandum shall serve as a guideline during the design of the expansion.

Task 1 Assumptions:

2 day site visit for the Senior Designer and Project Engineer

Task 1 Deliverables:

Assessment of Existing GCCS Memorandum

TASK 2 – Permitting and Regulatory Coordination

2.1 The Landfill is currently operating under a Cease and Desist Order from the RWQCB due to contamination of the groundwater at the Landfill. In an effort to increase the cooperation between the RWQCB and the County, Consultant shall coordinate with the RWQCB, for the upcoming proposed expansion of the landfill gas collection system. This coordination will occur through both meetings and correspondence on an as needed basis to facilitate the successful completion of the project.

2.2 Consultant shall contact the San Joaquin Valley Air Pollution Control District (SJVAPCD) to identify any submittals that are required for this expansion. Consultant’s precursory discussion with the SJVAPCD did not identify any specific submittals that will be required for a permit modification; however, Consultant shall verify this during the Permitting and Regulatory Coordination task of this project. This coordination will occur through both meetings and correspondence on an as needed basis to facilitate the successful completion of the project.

Task 2 Assumptions:

No meeting with either the SJVAPCD or the RWQCB will be required.

Task 2 Deliverables:

RWQCB and SJVAPCD Notification and Coordination (both if applicable).

TASK 3 – Preliminary 60% Design

3.1 Consultant shall develop a preliminary (60%) design based upon the information identified in Task 1. The Preliminary Design shall include 60% completion level design drawings, special provisions, standard specifications based on the WDRS and Public Contract Code for Public Works of Improvement, technical specifications, Engineer's Estimate of Probable Cost, and a quantity take-off estimate. Consultant shall submit the Preliminary Design Documents to the County for review and approval. A 60% Design Meeting shall occur between Consultant and the County to facilitate a clear understanding of the approach that was taken.

3.2 The 60% design drawings shall include the following sheets:

- a. Cover Sheet
- b. General Notes Sheet
- c. Existing Conditions Layout
- d. Proposed Expansion Layout
- e. Proposed Abandonment Layout
- f. Proposed Replacement Layout
- g. Well Schedule and Detail Sheet
- h. Collection Piping Detail Sheet
- i. Sump Replacement Detail Sheet
- j. Wellhead Replacement Detail Sheet

3.3 Consultant shall prepare Special provisions relevant to the project that will be used by the County to advertise and construct the project. Three hard copies and one electronic copy on a CD of special Provisions shall be delivered to the County after 100% plans are ready and signed by the engineer.

3.4 Project estimate prepared by the Consultant shall use Caltrans standard bid item descriptions wherever possible. Three hard copies and one electronic copy on a CD of final signed and stamped engineer's estimates shall be delivered to the County after 100% plans are signed by the engineer.

Task 3 Assumptions:

- a. Preliminary Design Documents shall be submitted as one (1) full-size hardcopy of drawings and one (1) hardcopy of other associated deliverables;
- b. One 60% design meeting between County staff and Consultant staff;
- c. Consultant's Project Engineer and Principal shall attend the 60% design meeting.

Task 3 Deliverables:

- a. 60% Design Drawings (Layouts and Details)
- b. 60% Design Standard Specifications, Special Provisions Technical Specifications
- c. 60% Design Engineer's Estimate of Probable Cost
- d. 60% Design Quantity Take-Off

Task 4 – Secondary 90% Design

4.1 Consultant shall develop a secondary (90%) design based upon the information identified in Task 1 and during the 60% Design Meeting, and associated comments from the County. This Secondary Design shall include 90% completion level design drawings, specifications, Engineer's Estimate of Probable Cost, and quantity take-off estimate. Consultant shall submit the Secondary Design Documents to the County for review and approval. A 90% Design Meeting shall occur between Consultant and the County to facilitate a clear understanding of the approach taken. Consultant shall update the specifications to a 90% completion level for delivery to the County for review at the 90% Design Meeting.

4.2 GPS Surveying:

Consultant shall perform GPS Surveying services consisting of a one (1) man GPS Survey Crew. The Consultant's GPS Survey Crew shall verify the elevations of each proposed landfill gas extraction well, verify the elevations of the existing components that will be modified or incorporated in the new design, and shall verify the slopes of the proposed piping.

4.2.1 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 and land surveying work". This phase of the project includes pre-construction work that is subject to payment of prevailing wage pursuant to Labor Code section 1720A.

4.2.2 Pursuant to Labor Code Section 1771, the 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 Contractor 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.

4.2.3 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, 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.

4.2.4 Notwithstanding any other term of this Amended and Restated Project Authorization or the Amended and Restated Master Agreement, the compensation for this Project Authorization includes the cost for prevailing wage.

4.3 The 90% design drawings shall include the following sheets:

- a. Cover Sheet
- b. General Notes Sheet
- c. Existing Conditions Layout
- d. Proposed Expansion Layout
- e. Proposed Abandonment Layout
- f. Proposed Replacement Layout
- g. Well Schedule and Detail Sheet
- h. Collection Piping Detail Sheet
- i. Sump Replacement Detail Sheet
- j. Wellhead Replacement Detail Sheet

Task 4 Assumptions:

- a. Secondary Design Documents shall be submitted as one (1) full-size hardcopy of drawings and one (1) hardcopy of other associated deliverables;
- b. One 90% design meeting between County staff and Consultant's staff;
- c. Consultant's Project Engineer and Senior Project Designer shall attend the 90% design meeting.

Task 4 Deliverables:

- a. 90% Design Drawings (Layouts and Details)
- b. 90% Design, Standard Specifications, Special Provisions and Technical Specifications
- c. 90% Design Engineer's Estimate of Probable Cost
- d. 90% Design Quantity Take-Off

Task 5 – Construction Documents

5.1 Consultant shall bring the 90% Design Documents to construction level for County's use during the County's bidding process. The Construction Documents shall also include an updated Engineer's Estimate of Probable Cost and construction level quantity take-off for inclusion in County's bid documents. The Construction Documents shall be signed and sealed by Consultant's California registered Professional Engineer in the state of California. Consultant shall assist the County during the initial phases of the bidding process by identifying potential bidders and recommending contact information.

Task 5 Assumptions:

- a. Construction Documents shall be submitted as one (1) full-size hardcopy of drawings and one (1) hardcopy of other associated deliverables.
- b. Electronic copies of the deliverables shall be made available to County as required for the County's bidding process. Plan submittal and specifications must be in a digital format. The CAD files including all topographical data, topographical surfaces, points, alignments, sites, corridors, and pip networks must be prepared using AutoCAD Civil 3D 2010 format. Standard Caltrans abbreviations shall be strictly used throughout.

Task 5 Deliverables:

- a. Construction Drawings (Layouts and Details) Signed and Sealed by a California registered Professional Engineer
- b. Construction Specifications Signed and Sealed by a California registered Professional Engineer
- c. Engineer's Estimate of Probable Cost
- d. Quantity Take-Off

Task 6 – Bid Assistance

Consultant shall attend the Pre-Bid Meeting at the Geer Road Landfill (or at another location in Modesto at the request of the County). Consultant shall attend this meeting with the County and any contractors who are preparing to bid on the project. Background information regarding the expansion of the collection system or any specific design issues shall be discussed at this meeting.

Consultant shall be available to assist the County in responding to all Requests for Information (RFI) specifically regarding the design during the advertisement phase. Consultant shall be available to provide the County with written responses to the bidder specific design questions. The County shall include the Consultant's responses in the addenda that shall be distributed by the County to the bidders.

After the bids have been received by the County, and upon request of the County, Consultant shall assist County with the review of the approved lowest responsible and responsive bidders, bid response to provide comments to the County for potential clarifications on the bid. Should any additional follow up questions be required or responses require review, Consultant shall be available to assist at the County's disposal.

Additionally, the Consultant will be available to review and revise the design documents if required, due to discrepancies which resulted from negligence of the design plans. Engineering support, including but not limited to review of Contractor submittals, review/approval of change orders, and requests for design changes from the Contractor are not included in this task.

Task 6 Assumptions:

- a. Consultant shall attend and participate, as requested by the County, in a Mandatory Pre-Bid Meeting
- b. Consultant shall attend the Mandatory Pre-Bid Meeting with the Project Engineer and Principal
- c. Consultant shall, upon request from the County, assist the County in responding to all RFI specifically regarding the design during the advertisement phase.
- d. Consultant's fee for this task assumes providing assistance with responses to design specific RFI for a total of two (2) addenda.

Task 6 Deliverables:

- a. Consultant shall respond to all RFI that are regarding design specific questions for two (2) addenda.

E. Cost Estimates

A project cost estimate for each task shall be submitted with each design submittal. Estimates shall use as a basis, wherever possible, historic and current cost data from County construction projects or from historic or current cost data from like industry standard construction 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. Contractor fees for permits, inspection, utility services and other known items of work shall be included in the cost estimate as allowances.

An independent review of the project estimate unit rates and quantities shall be provided by a different individual to verify the accuracy and completeness of the estimate and to ensure that all items of work are included. The Consultant's ability to accurately estimate project construction costs relative to actual contractors' bids will be a key factor in the evaluation of their overall performance.

F. Project Timeline

The project timeline for the Tasks described in the Scope of Work is in Attachment A – Schedule, attached hereto and made a part of this Agreement.

G. Project Authorization Period

Services shall commence on July 22, 2013, or upon the signing of this Agreement, and continue until October 31, 2013, or upon completing the agreed upon services.

H. Compensation

The Consultant shall be compensated for the services provided under this Agreement and this scope of work as follows:

1. Project Price

1.1 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 project. The Consultant shall be compensated on a time and material basis, based on the rates set forth below and in the Amended and Restated Master Agreement to perform the work associated with each task, not to exceed the amounts listed below. Maximum Total Task Price includes fees and reimbursable expenses that have been agreed to by the both parties in accordance with the Amended and Restated Master Agreement Exhibit C – Fee Schedule. The County shall not reimburse for fax, phone, postage or copies and other items as identified in Exhibit C – Fee Schedule. The County shall not pay a mark up on travel expenses and items identified in Exhibit C – Fee Schedule of the Amended and Restated Master Agreement. Consultant shall include all receipts for travel expense reimbursement. Travel expense reimbursement shall be in accordance with the County's travel policy.

1.2 Maintenance and Weekly Submission of Certified Payroll Records. The Consultant and each of its Subcontractors 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 Subcontractors shall maintain and submit Certified Payroll Records on a weekly basis. No later than the 5:00 P.M. on each Monday during the Work, the Consultant shall submit Certified Payroll Records for the Consultant and its Subcontractors 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 Landfill. 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 Subcontractor'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.

1.3 A Summary of the Project fees is below:

TASK	DESCRIPTION	MAXIMUM NOT TO EXCEED TOTAL TASK PRICE
1	Assessment of Existing GCCS	\$11,646
2	Permitting and Regulatory Coordination	\$12,208
3	Preliminary 60% Design	\$25,938
4	Secondary 90% Design	\$35,780
5	Construction Documents	\$28,518
6	Bid Assistance	\$16,808

1.4 Detailed fees below:

Task 1			
Staff Title	Billing Rate	Hours/Qty	Maximum Not to Exceed Total
Principal	\$264.00	2	\$ 528.00
Principal Engineer	\$225.00	4	\$ 900.00
Project Engineer	\$167.00	16	\$ 2,672.00
Project Manager	\$187.00	8	\$ 1,496.00
General Clerk	\$ 68.00	20	\$ 1,360.00
Sr. Project Designer	\$162.00	20	\$ 3,240.00
			\$ 10,196.00
<i>Reimbursable</i>			
Airline	\$400.00	2	\$ 800.00
Hotel	\$150.00	2	\$ 300.00
Food	\$ 50.00	4	\$ 200.00
Rental Car	\$ 75.00	2	\$ 150.00
			\$ 1,450.00
SUB TOTAL			\$ 11,646.00
Task 2			
Staff Title	Billing Rate	Hours/Qty.	Maximum Not to Exceed Total
Principal	\$264.00	8	\$ 2,112.00
Principal Engineer	\$225.00	8	\$ 1,800.00
Project Engineer	\$167.00	16	\$ 2,672.00
Project Manager	\$187.00	8	\$ 1,496.00
Engineer III	\$129.00	32	\$ 4,128.00
			\$ -
SUB TOTAL			\$ 12,208.00

Task 3			
Staff Title	Billing Rate	Hours/Qty.	Maximum Not to Exceed Total
Principal	\$264.00	16	\$ 4,224.00
Principal Engineer	\$225.00	4	\$ 900.00
Project Engineer	\$167.00	40	\$ 6,680.00
Project Manager	\$187.00	8	\$ 1,496.00
General Clerk	\$ 68.00	8	\$ 544.00
Sr. Project Designer	\$162.00	40	\$ 6,480.00
Engineer III	\$129.00	20	\$ 2,580.00
Sr. Project Manager	\$198.00	8	\$ 1,584.00
			\$ 24,488.00
Airline	\$400.00	2	\$ 800.00
Hotel	\$150.00	2	\$ 300.00
Food	\$ 50.00	4	\$ 200.00
Rental Car	\$ 75.00	2	\$ 150.00
			\$ 1,450.00
SUB TOTAL			\$ 25,938.00
Task 4			
Staff Title	Billing Rate	Hours/Qty.	Maximum Not to Exceed Total
Principal	\$264.00	4	\$ 1,056.00
Principal Engineer	\$225.00	4	\$ 900.00
Project Engineer	\$167.00	40	\$ 6,680.00
Project Manager	\$187.00	8	\$ 1,496.00
General Clerk	\$ 68.00	8	\$ 544.00
Sr. Project Designer	\$162.00	60	\$ 9,720.00
Engineer III	\$129.00	60	\$ 7,740.00
Sr. Project Manager	\$198.00	8	\$ 1,584.00
1 Man GPS Survey	\$198.00	20	\$ 3,960.00
			\$ 33,680.00
Airline	\$400.00	3	\$ 1,200.00
Hotel	\$150.00	3	\$ 450.00
Food	\$ 50.00	6	\$ 300.00
Rental Car	\$ 75.00	2	\$ 150.00
			\$ 2,100.00
Note* Task 4 – GSP Surveyor is under the prevailing wage requirement.			
SUB TOTAL			\$ 35,780.00
Task 5			
Staff Title	Billing Rate	Hours/Qty.	Maximum Not to Exceed Total
Principal	\$264.00	16	\$ 4,224.00
Principal Engineer	\$225.00	4	\$ 900.00
Project Engineer	\$167.00	40	\$ 6,680.00
Project Manager	\$187.00	8	\$ 1,496.00
General Clerk	\$ 68.00	8	\$ 544.00
Sr. Project Designer	\$162.00	40	\$ 6,480.00
Engineer III	\$129.00	40	\$ 5,160.00
Sr. Project Manager	\$198.00	8	\$ 1,584.00
			\$ 27,068.00

Task 5 (continued)			
Airline	\$400.00	2	\$ 800.00
Hotel	\$150.00	2	\$ 300.00
Food	\$ 50.00	4	\$ 200.00
Rental Car	\$ 75.00	2	\$ 150.00
			\$ 1,450.00
SUB TOTAL			\$ 28,518.00
Task 6			
Staff Title	Billing Rate	Hours/Qty.	Maximum Not to Exceed Total
Principal	\$264.00	16	\$ 4,224.00
Principal Engineer	\$225.00	4	\$ 900.00
Project Engineer	\$167.00	32	\$ 5,344.00
Project Manager	\$187.00	6	\$ 1,122.00
General Clerk	\$ 68.00	6	\$ 408.00
Sr. Project Designer	\$162.00	8	\$ 1,296.00
Engineer III	\$129.00	16	\$ 2,064.00
			\$ 15,358.00
Airline	\$400.00	2	\$ 800.00
Hotel	\$150.00	2	\$ 300.00
Food	\$ 50.00	4	\$ 200.00
Rental Car	\$ 75.00	2	\$ 150.00
			\$ 1,450.00
SUB TOTAL			\$ 16,808.00

1.5 PROJECT TOTAL SHALL NOT EXCEED: \$130,898.00

*Note: Invoices submitted for cost under the following categories shall be in accordance with this Amended and Restated Project Authorization and Amended and Restated Master Agreement Exhibit C.

I. Payment and Invoicing

1. 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, information as required in Section H, Item 1.2 of this Amended and Restated Project Authorization, etc.) attached to the invoices. Consultant shall be compensated for services rendered and accepted under this Agreement and shall be paid monthly, in arrears, on a time and material basis not to exceed the per task totals for work performed and services provided.
2. The County shall pay the Consultant 30 days after approval of the invoice.

Invoices shall be mailed or delivered to the Department indicated below. The remit to address is:

Stanislaus County
 Department of Environmental Resources Landfill
 Attention: Jami Aggers
 3800 Cornucopia Way, Suite C
 Modesto, California 95358

J. Representatives

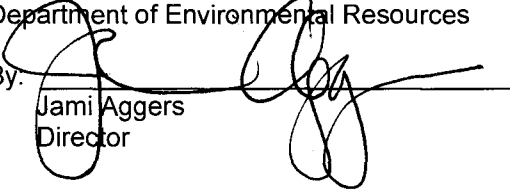
The County's representatives are Jami Aggers, (209) 525-6768 and Gerry Garcia, (209) 837- 4816. The Consultant's representatives are Bryan Stirrat as the primary contact, Lee Daigle as Landfill Gas contact.

K. 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.

IN WITNESS WHEREOF, the parties have executed this Project No. 13-003AR-SMG on January 9, 2015.

COUNTY OF STANISLAUS
Department of Environmental Resources

By: 
Jami Aggers
Director

"County"

TETRA TECH BAS, INC.

By: 
Bryan A. Stirrat
President

"Consultant"

APPROVED AS TO FORM:

John P. Doering
County Counsel

By: 
Thomas E. Boze
Deputy County Counsel

DEPARTMENT OF ENVIRONMENTAL RESOURCES
3800 Cornucopia Way, Suite C, Modesto, CA 95358
Phone: (209) 525-6770
Fax: (209) 525-6773



**AMENDED AND RESTATED PROJECT AUTHORIZATION
Project Number 13-004AR-SMG**

for

Maintenance, Emergency Services, Repairs, and Non-Routine Services at Geer Road Landfill

WHEREAS, as of December 11, 2012, (the "Effective Date") the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant"), have entered into a certain Agreement relating to the provisions of monitoring, sampling and reporting services (the "Original Master Agreement") at the Geer Road Landfill; and

WHEREAS the original *Master Agreement for Professional Design Services* number A101412 entered into on December 11, 2012, was amended and restated under Agreement number A101412AR on Jan. 6, 2015; and

WHEREAS, as of January 1, 2013, (the "Project Authorization Effective Date") the County and Consultant have entered into a certain Original Project Authorization Agreement number PA 13-001 for a total not to exceed amount of \$2,979,446, consisting of \$225,000 for emergency/non-routine services and \$2,754,446 for the 3 year basic contract services relating to the Implementation of the Monitoring, Sampling, Testing and Reporting Services at the Geer Road Landfill (the "Original Project Authorization"); and

WHEREAS, the County has a need for Prevailing Wage Work on an "as needed basis" for maintenance, surveying, construction oversight, repairs, non-routine service calls, and emergency services and the Original Agreement failed to recognize that Work requiring the payment of Prevailing Wage would be required under the Agreement; and

WHEREAS, the County desires to transfer \$736,704 from the Original Project Authorization number 13-001 not to exceed amount of \$2,979,446 into this Amended and Restated Project Authorization to cover the maintenance, surveying, construction oversight, emergency services, repairs and non-routine services; and

WHEREAS, of the \$736,704 transferred amount from the Original Project Authorization, an estimated \$625,269 has been spent as of the date of this Amended and Restated Agreement; and

WHEREAS, the County has a need to add a total of \$210,582 to this Amended and Restated Project Authorization transfer amount of \$736,704. The \$210,582 is to cover the replacement of \$100,686 in funds spent for fire damage and \$109,896 for prevailing wage work; and

WHEREAS, both parties desire to Amend and Restate the Original Project Authorization number 13-001-SMG to be consistent with the Amended and Restated Master Agreement; and

WHEREAS, maintenance, emergency services, repairs and non-routine services included in the Original Project Authorization number 13-001-SMG and referenced in Section F, Item 1.5.2 of the Original Project Authorization, shall be performed under this Amended and Restated Project Authorization; and

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

A. Terms and Conditions

Except as hereinafter provided, the services provided by the Consultant under this Project Authorization, shall be subject to the terms and conditions set forth in the *Amended and Restated Master Agreement for Professional Design Services* number A101412AR and its Exhibits 1, C and D made and entered into by and between the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant"), on January 6, 2015.

B. Definitions

1. Maintenance: For the purpose of this Agreement maintenance is defined as:

1.1 Title 8, Section 16000, Chapter 8, Subchapter 3, Article 1 of the California Code of Regulations charged by the Department of Industrial Relations, defines maintenance to include: (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 is defined as "public works" subject to prevailing wage.

1.2 Routine Maintenance: For the purpose of this Agreement routine maintenance includes:

1.2.1. Routine, reoccurring and usual work such as cleaning, maintaining proper pressure, keeping the burner and manual air dampers properly adjusted, keeping flare drained, changing oil, replacing small filters, etc., which is performed for the preservation, protection and keeping of the 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.

1.3 Non-Routine Scheduled Maintenance: For the purpose of this Agreement non-routine scheduled maintenance, which shall not exceed \$45,000.00, consists of corrective repairs or maintenance work identified during the routine operations, maintenance and monitoring inspections and site visits. The work shall consist of, but is not limited to, items such as repair of broken valves, replacement of torn flex hoses and repair of damaged conveyance piping and relocation of header due to landfilling operations. This work is essential for proper system operation; however, it is considered the type of work that can be scheduled to allow for procurement of materials, equipment and scheduling of personnel. Non-routine scheduled maintenance shall be performed only after receipt of a prior written project authorization from the County. The following list presents examples of activities expected to be non-routine occurrences:

- 1.3.1 Thermocouple replacement;
- 1.3.2 Blower belt replacement;
- 1.3.3 UV scanner replacement;
- 1.3.4 Flare refractory repair or replacement;
- 1.3.5 Flare Coating repair;
- 1.3.6 Air Compressor equipment repairs;
- 1.3.7 Well head replacement;
- 1.3.8 Well valve replacement;
- 1.3.9 Well extension, abandonment and capping;
- 1.3.10 Installation of temporary condensate tanks;
- 1.3.11 Replacement of Flex Hose(s);
- 1.3.12 Well service removal and re-installation;
- 1.3.13 Header removal and re-installation;
- 1.3.14 Knockout vessel demister pad cleaning;
- 1.3.15 Equipment removal, installation and replacement; and
- 1.3.16 Schematic sketches for cost estimating.

1.4 Non-Routine Unscheduled Emergency Services: For the purpose of this Agreement non-routine unscheduled emergency services, which shall not exceed \$45,000.00, is defined as a sudden, unexpected occurrence that poses a clear and imminent danger, requiring immediate action to prevent or mitigate the loss or impairment of life, health, property, or essential public services which may require immediate response. Consultant shall respond to these conditions, on an as-needed basis. This type of event shall include, but not be limited to the following:

- 1.4.1 Call out by the automatic dialing system;
- 1.4.2 Flare station shut-down events;
- 1.4.3 Surging vacuum; and
- 1.4.4 Repair of landfill gas and condensate system piping breaks or separations causing the emergency shutdown of the LFG.

1.5 Public Project: For the purpose of this Agreement, Public Project as defined in the Public Contracting Code Section 22002 (c) (1), means construction, reconstruction, erection, alteration, renovation, improvement, demolition, and repair work involving any publicly owned, leased, or operated facility. It shall be unlawful to split or separate into smaller work orders or projects any project for the purpose of evading the provisions of Article 22033 of the Public Contracting Code requiring work to be competitively bid.

1.5.1 Public Projects Forty-five Thousand dollars (\$45,000) or more are not to be performed under this Agreement and will be let by contract in accordance with the State of California Public Contract Code.

1.6 Prevailing Wage: Prevailing Wage Laws as defined in Section 1720 of the California Labor Code, et seq. and 1770 et seq. as well as California Code of Regulations, Title 8, Section 16000 et seq. ("Prevailing Wage Laws"), require the payment of prevailing wage rates and the performance of other requirements on certain "public work" and "maintenance" projects. "Public Work" is defined as construction, alteration, demolition, installation, or repair work done under contract and paid for in whole or in part out of public funds. This shall include work performed during the design and preconstruction phase of construction including, but not limited to, inspection and land surveying work.

1.7 Non-Routine Service Calls: For the purpose of this Agreement non-routine service calls, which shall not exceed \$45,000.00 and which is not considered a Public Project as defined in Section B, Item 1.5 and 1.5.1 of this Project Authorization or Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement, are as-needed calls placed against this Agreement by the County. The County shall issue a single Project Authorization for non-routine service calls. It is expressly understood that the tasks (service calls) to which the Consultant is asked to respond to, shall be on an "as-needed" basis. As each service call is identified, the Consultant shall prepare a detailed scope of work to be accomplished, list of deliverables, schedule for completion, and a not-to-exceed detailed cost proposal for its completion and present to the County for review and written approval prior to commencement of the proposed work. These services may be paid on a time and materials basis or lump sum basis as mutually agreed by the County. The County's project authorization number shall be submitted on the invoice in order for payment to be made.

C. Scope of Work

1. Consultant shall provide all of the labor, materials, equipment, supplies and supervision to perform "as needed" maintenance, emergency services, and non-routine services (i.e. repair, implementation of remedial action, modifications, adjustments, calibration, implementation of corrective action measures/cover maintenance, inspections, cleaning, construction oversight, surveying, flagging, daily field activities requiring prevailing wage, etc.) at the County's Geer Road Landfill. Service performed by the Consultant shall be in accordance with Section 1 and Section 2 Item 2.3 et seq., of the Amended and Restated Master Agreement. Work as described in Section B, Item 1.5 and 1.5.1 of this Project Authorization or Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement. Services authorized to be performed by the Consultant on an as needed basis, under this Agreement are as follows:

1.1 Non-Routine Services Calls

1.1 Non-routine service calls are defined above and in Section 1.7 of the Amended and Restated Master Agreement. All work performed under this category shall be in accordance with Sections 1.7, 1.6 and 2.3 of the Amended and Restated Master Agreement. As each service call is identified, the Consultant shall prepare a detailed scope of work to be accomplished, list of deliverables, schedule for completion, and a not-to-exceed detailed cost proposal for its completion and present this to the County for review and written approval prior to commencement of the proposed work. These services may be paid on a time and materials basis or lump sum basis as mutually agreed by the County.

1.2 Non-Routine Unscheduled Emergency Services

1.2.1 Non-routine unscheduled emergency Services are defined above and in Section 1.4 of the Amended and Restated Master Agreement. All work performed under this category shall be in accordance with Sections 1.4, 1.5, 1.6 and 2.3 of the Amended and Restated Master Agreement. However, in no case shall modification or repair work exceeding the limit set forth in Section B, Item 1.5 and 1.5.1 of this Project Authorization or Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement, be performed under this Agreement.

1.3 Routine Maintenance For the purpose of this Agreement routine maintenance includes:

1.3.1. Routine, reoccurring and usual work such as cleaning, maintaining proper pressure, keeping the burner and manual air dampers properly adjusted, keeping flare drained, changing oil, replacing small filters, etc., which is performed for the preservation, protection and keeping of the 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.

1.4 Non-Routine Scheduled Maintenance

1.4.1 Should the County request the Consultant to perform non-routine scheduled maintenance as defined in Sections 1.1 and 1.3 of the Amended and Restated Master Agreement; the Consultant shall perform this work in accordance with Section B above, and Sections 1.1, 1.3 and 2.3 of the Amended and Restated Master Agreement. As each service call is identified, the Consultant shall prepare a detailed scope of work to be accomplished, list of deliverables, schedule for completion, and a not-to-exceed detailed cost proposal for its completion and present this to the County for review and written approval prior to commencement of the proposed work. These services may be paid on a time and materials basis or lump sum basis as mutually agreed by the County. However, in no case shall modification or repair work exceeding the limit set forth in Section B, Item 1.5 and 1.5.1 of this Project Authorization or Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement, be performed under this Agreement.

1.5 Groundwater Extraction and Treatment System (GWETS) Maintenance and Repairs

1.5.1 A Groundwater Extraction and Treatment System (GWETS) was installed at the Geer Road Landfill in 1993, with the intent of controlling, capturing and treating contaminated groundwater beneath the site. The GWETS consists of 12 groundwater extraction wells (EX-well), each equipped with a pneumatic pump that discharges to a main header leading to the GWETS treatment plant and two (2) granular activated carbon (GAC) treatment vessels for the removal of VOCs. The volume of water treated and mass of VOCs removed from the GWETS is required to be calculated and reported, however this was not always a requirement. Therefore, the volume of water and cumulative mass removed for the lifetime of the system is not available. Since this data has been required the values have been calculated using total VOC detection from influent samples collected during forty-day monitoring events and total flow recorded for each forty-day period. Effluent from the treatment system is discharged to the subsurface through a series of reinjection trenches. Extracted VOC impacted groundwater is treated at the plant using granular activated carbon. Operation of the GWETS is critical to maintaining the site's compliance status. Additionally a Telemetric Auto Reporting System is currently not in operation due to the severity and cost associated with onsite vandalism. The system, however, does have counters that track flow rate and total flow which are required to be monitored and recorded as per the WDRs and Revised MRP. The system is currently under evaluation, and optimization strategies are being implemented to increase the capture capability of the system, especially along the western edge of the landfill where vinyl chloride impacts to groundwater have been identified and where no decreasing trend in VOC concentrations has been observed. Ongoing efforts to optimize the landfill gas extraction system (LFGES) are being utilized to provide long-term decreases in site-wide VOC impacts to groundwater. Per the WDRs and Revised MRP, the annual GWETS plant run time, down time, and duration of downtime shall be reported in hours in/not in operation, and percent of total time in full operation and a 95% run time (or better) must be met annually. It should be noted that currently EX- well Number 4 is unable to be sampled and the system is under evaluation, and optimization strategies are being implemented to increase the capture capability of the system, especially along the western edge of the landfill where vinyl chloride impacts to the groundwater have been identified and where no decreasing trend in VOC concentrations has been observed. Ongoing efforts to optimize the landfill gas extraction system (LFGES) are being utilized to provide long-term decreases in site-wide VOC impacts to groundwater. It should also be noted that County staff is in the process of identifying a mechanism to upgrade the GWETS to increase the volume of treated groundwater within the existing limitations of the system. Under a separate Agreement, an emergency back-up compressor was installed in October 2011, to prevent system shutdown due to compressor failure; and a new Auto-dialer call-out system was also installed in November 2011 to minimize system off-line time.

1.5.2 All authorized repair or maintenance service items performed under this task shall be in accordance with Section 1 and Section 2 Item 2.3 of the Amended and Restated Master Agreement. Work above the limits set forth in Section B, Item 1.5 and 1.5.1 of this Project Authorization or Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Project Authorization. As each service call is identified, Consultant shall prepare a detailed scope of work to be accomplished, list of deliverables, schedule for completion, and a not-to-exceed detailed cost proposal for its completion and present to the County for review and written approval prior to commencement of the proposed work. These services may be paid on a time and materials basis or lump sum basis as mutually agreed by the County. The County's project authorization number shall be submitted on the invoice in order for payment to be made.

1.5.3 Consultant shall identify, plan and obtain written authorization to perform non routine repair or maintenance services on items identified by the Consultant during the Consultant's routine GWETS monitoring.

1.5.4 Consultant shall identify and plan for routine maintenance and repair activities and obtain written authorization to perform these tasks on a recurring basis.

1.5.5 Consultant shall perform twice a week, inspections on the entire GWETS system, including each of the extraction wells. During each inspection, Consultant shall also inspect the GWETS treatment plant and any discrepancies in system operation shall be noted by the Consultant. Extraction well pumps shall be inspected for damage and vandalism, and to verify that they are operating properly. Because of the location of the wells along the lightly secured site perimeter, it is critical that the wells be secure.

1.5.6 The hydrogeology of the site is such that the wells should be able to operate in a continuous manner under most conditions. Consultant's field crews shall observe and record the operation of each pump and note any inconsistency in their operation. Each pump is equipped with a cycle counter that can be used to correlate instantaneous pumping rates to the average pumping rate since the previous inspection. Often, lack of operation of pneumatic pumps can be addressed through clearing of the pneumatic line or adjustment of the pump regulator at the surface. The Consultant shall clear the pneumatic line or adjust the pump regulator at the surface, under this Agreement.

1.5.7 Depth to water and total depths, in addition to a summary of necessary maintenance/repairs, shall be recorded by the Consultant as per the WDRs and Revised MRP. Consultant shall perform a second weekly visit specifically to address filter inspection and a summary of necessary maintenance/replacement shall be recorded as per the WDRs and Revised MRP.

1.5.8 Other identified GWETS maintenance and repair activities include, but may not be limited to:

- a. Repair, maintenance or replacement of extraction pumps within the limits as set forth in Section 1, Item 1.5 and 1.5.1. of the Amended and Restated Master Agreement;
- b. Calibration / repair of flow meters and cycle counters
- c. Repairs of piping leaks or damage;
- d. Valve replacements;
- e. Air compressor maintenance or repairs; and
- f. Repair or maintenance related to evidence of damage, tampering, or vandalism to the groundwater wells or system. (Within the limits as set forth in Section 1, Item 1.5 and 1.5.1. of the Amended and Restated Master Agreement).

1.5.9 If VOC break-through is confirmed, Consultant shall immediately notify the County and provide the County a written proposal of the costs for the change-out, if requested by the County.

1.5.10 In no case shall modification, replacement or repair work exceeding the limit set forth in Section B, Item 1.5 and 1.5.1 of this Project Authorization or Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement, be performed under this Agreement.

1.6 Groundwater Monitoring Wells

1.6.1 Currently there are 52 groundwater monitoring wells (MW) installed at the site to assess groundwater conditions in and around the site. The quantity of groundwater monitoring wells could increase or decrease throughout the duration of this Agreement. Thirty-two of these wells are designated as “shallow” wells and are indicated with an “S” in the well number. These wells are typically screened across the static water level of the first saturated zone. The remaining 20 wells are designated “deep” wells and are indicated with a “D” in the well number and are typically screened at depths of 30-50 feet below the static water level in the shallow zone.

1.6.2. The following summarizes the current number of wells comprising the groundwater monitoring network:

- a. 32 Shallow Wells
MW-2S, MW-3S, MW-4S, MW-5S, MW-8S, MW-9S, MW-14S, MW-15S, MW-23S, MW-24, MW-26S, MW-27S, MW-28S, MW-29S, MW-30S, PZ-1, PZ-2, PZ-3, PZ-4, PZ-6, MW-1S, MW-7S, MW-10S, MW-11S, MW-12S, MW-13S, MW-16S, MW-17S, MW-18S, MW-19S, MW-21S, MW-22S
- b. 20 Deep Wells
MW-1D, MW-2D, MW-3D, MW-4D, MW-15D, MW-23D, MW-24D, MW-25D2, MW-25D3, MW-26D, MW-27D, MW-28D, MW-29D, MW-30D, MW-7D, MW-17D, MW-18D, MW-19D, MW-21D, MW-22D
- c. 4 Wells
Streeter-Shop, Streeter-House, PMW-1, PMW-2
Note: The County will be asking the Water Board to delete one (1) of the two (2) Streeter wells as the Consultant has determined that this is a duplicate well.
- d. 2 Leachate Wells
LW-1, LW-2 (Assumed Dry).

1.6.3 Consultant shall identify and plan for routine maintenance and repair activities and obtain written authorization to perform these tasks on a recurring basis. The Consultant shall prepare a detailed scope of work to be accomplished, list of deliverables, schedule for completion, and a not-to-exceed detailed cost proposal for its completion and present to the County for review and written approval prior to commencement of the proposed work. These services may be paid on a time and materials basis or lump sum basis as mutually agreed by the County. The County’s project authorization number shall be submitted on the invoice in order for payment to be made.

1.6.4 In no case shall modification, replacement or repair work exceeding the limit set forth in Section B, Item 1.5 and 1.5.1 of this Project Authorization or Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement, be performed under this Agreement

1.7 Landfill Gas Collection and Extraction System Maintenance and Repairs

1.7.1 All authorized repair or maintenance service items performed under this task shall be in accordance with Section 1 and Section 2 Item 2.3 of the Amended and Restated Master Agreement. Work above the limits set forth in Section B, Item 1.5 and 1.5.1 of this Project Authorization or Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Project Authorization. The Consultant shall prepare a detailed scope of work to be accomplished, list of deliverables, schedule for completion, and a not-to-exceed detailed cost proposal for its completion and present to the County for review and written approval prior to commencement of the proposed work. These services may be paid on a time and materials basis or lump sum basis as mutually agreed by the County. The County’s project authorization number shall be submitted on the invoice in order for payment to be made.

1.7.2 Consultant shall identify, plan and obtain written authorization to perform non routine repair or maintenance services, on items identified by the Consultant during the Consultant’s routine landfill gas collection and control system monitoring.

1.7.3 Consultant shall identify and plan for routine maintenance and repair activities and obtain written authorization to perform these tasks on a recurring basis.

1.7.4 Other identified landfill gas collection and control system maintenance and repair activities shall be addressed under written authorization from the County specific to that occurrence. Landfill gas collection and control system maintenance and repair activities are anticipated to include, but may not be limited to:

- a. Repair, maintenance or replacement of pneumatic condensate sump pumps;
- b. Calibration/repair of flow meters at the flare station and cycle counters at condensate sumps;
- c. Repairs of piping leaks or damage;
- d. Extraction well control valve replacements;
- e. Air compressor maintenance or repairs;
- f. Sample port replacement;
- g. Replacement of Kana-Flex hoses;
- h. Adjustments of the system based on numerous criteria including the gas composition, the ratio of specific compounds, the flow rate of the well and other key criteria. Consultant's engineering staff shall recommend the adjustments which are sent back to the Consultant's technician in the field, who then implements the adjustment recommendations. The Consultants technicians are not authorized to make adjustments without the direction of the Consultant's engineering staff. This allows the Consultant's key members of the project team to remain in control and responsible for the optimization of the collection system; and
- i. Consultant shall ensure the extraction system is operating at the optimal conditions for the existing equipment at the Landfill. All authorized repair or maintenance service items performed under this task shall be in accordance with Section 1 and Section 2 Item 2.3 of the Amended and Restated Master Agreement. Work above the limits set forth in Section B, Item 1.5 and 1.5.1 of this Project Authorization or Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Project Authorization. The Consultant shall prepare a detailed scope of work to be accomplished, list of deliverables, schedule for completion, and a not-to-exceed detailed cost proposal for its completion and present to the County for review and written approval prior to commencement of the proposed work. These services may be paid on a time and materials basis or lump sum basis as mutually agreed by the County. The County's project authorization number shall be submitted on the invoice in order for payment to be made.

1.8 LFG Extraction Well, Monitoring Probes and Perimeter Methane Monitoring Probes

1.8.1 Consultant shall perform maintenance on the extraction wells, probes and the parameters including the following:

- a. Adjustment of the extraction flow rate at each well;
- b. Adjustment of static pressure in wellhead; and
- c. Adjust the landfill gas collection system in an effort to reduce the methane concentration in the probe to below 5.0% by volume.

1.9. NPDES Storm Water Pollution Prevention

1.9.1 County's personnel annually inspects all onsite storm water conveyance systems and if necessary, coordinates repair of all onsite storm water conveyance systems. At the request of the County the Consultant shall assist the County to make repairs to the system, the Work shall be in accordance with the Amended and Restated Master Agreement Section 1 and Section 2.3 et seq., and shall be authorized under a separate Project Authorization. If the repairs exceed the limits set forth in Section B, Item 1.5 and 1.5.1 of this Project Authorization or Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement, the work shall not be performed under this this Agreement.

1.9.2 All authorized repair or maintenance service items performed under this task shall be in accordance with Section 1 and Section 2 Item 2.3 of the Amended and Restated Master Agreement. Work above the limits set forth in Section B, Item 1.5 and 1.5.1 of this Project Authorization or Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Project Authorization. The Consultant shall prepare a detailed scope of work to be accomplished, list of deliverables, schedule for completion, and a not-to-exceed detailed cost proposal for its completion and present to the County for review and written approval prior to commencement of the proposed work. These services may be paid on a time and materials basis or lump sum basis as mutually agreed by the County. The County's project authorization number shall be submitted on the invoice in order for payment to be made.

1.10 Surface Emissions Equipment Maintenance and Repair

1.10.1 Inspections, calibration, remediation, flagging, compacting, etc., work associated with Surface Emissions Monitoring shall be performed by Consultant under this task, in accordance with Section 1 and Section 2.3 et seq., of the Amended and Restated Master Agreement. If the repairs exceed the limits set forth in Section B, Item 1.5 and 1.5.1 of this Project Authorization or Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement, the work shall not be performed under this this Agreement.

This includes the following tasks:

1.10.2 Consultant's Field staff shall perform surface observations during instantaneous surface monitoring to identify cracks or fissures in the landfill cover that could act as potential pathways for LFG to escape to the atmosphere.

1.10.3 Consultant's field staff shall mark surface areas with flags where TOC concentrations exceed 1,000 ppmv, identifying areas in need of remediation. To initiate remediation, the Consultant shall notify the County Project Manager of exceedance areas within 24 hours of identification. To track remediation of exceedance areas, Instantaneous Surface Monitoring Data Sheets shall be filled out by Consultant and distributed to appropriate Consultant personnel. Consultant shall provide remediation of exceedance areas by providing additional cover material and compacting and/or adjusting LFG extraction wells to increase the extraction rate in areas adjacent to exceedance areas. Consultant shall re-test remediated areas within 10 working days of the initial monitoring. Consultant shall repeat this process when TOC concentrations are below 1,000 ppmv.

1.10.4 If Consultant observes and identifies exceedances of the regulatory requirement, the Consultant shall then perform adjustments to the landfill gas collection system in an effort to mitigate the surface emissions in accordance with Section 1 and Section 2.3 et seq., of the Amended and Restated Master Agreement.

1.10.5 All authorized repair or maintenance service items performed under this task shall be in accordance with Section 1 and Section 2 Item 2.3 of the Amended and Restated Master Agreement. Work above the limits set forth in Section B, Item 1.5 and 1.5.1 of this Project Authorization or Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Project Authorization. The Consultant shall prepare a detailed scope of work to be accomplished, list of deliverables, schedule for completion, and a not-to-exceed detailed cost proposal for its completion and present to the County for review and written approval prior to commencement of the proposed work. These services may be paid on a time and materials basis or lump sum basis as mutually agreed by the County. The County's project authorization number shall be submitted on the invoice in order for payment to be made.

1.11 Repair and Maintenance at the Blower Flare Station (BFS)

1.11.1 Inspections, calibration, remediation, repair work etc., associated with this task shall be performed by Consultant under this Task, in accordance with Section 1 and Section 2.3 et seq., of the Amended and Restated Master Agreement. This includes the following tasks:

1.11.2 Consultant shall identify corrective action work required and what is needed to repair the area of concern. Consultant shall immediately notify the County and provide the County with a written proposal detailing the scope of work needed to perform corrective action. The proposal shall include costs for prevailing wage work. The work proposed shall be in accordance with Section 1 and Section 2, Item 2.3 et seq., of this Agreement and authorization to perform the work shall be under a separate Project Authorization issued for Maintenance/Non-routine work.

1.12 Non-Methane Organic Compound (NMOC) Testing

1.12.1 The Geer Road Landfill is currently a New Source Performance Standard (NSPS) exempt site. This exemption is due to the Tier II analyses that have been performed in accordance with 40 Code of Federal Regulations (CFR) 750 Subpart WWW.

1.12.2 All authorized repair or maintenance service items performed under this task shall be in accordance with Section 1 and Section 2 Item 2.3 of the Amended and Restated Master Agreement. Work above the limits set forth in Section B, Item 1.5 and 1.5.1 of this Project Authorization or Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Project Authorization. The Consultant shall prepare a detailed scope of work to be accomplished, list of deliverables, schedule for completion, and a not-to-exceed detailed cost proposal for its completion and present to the County for review and written approval prior to commencement of the proposed work. These services may be paid on a time and materials basis or lump sum basis as mutually agreed by the County. The County's project authorization number shall be submitted on the invoice in order for payment to be made.

1.13 Source Testing and Methane Destruction Efficiency Testing

1.13.1 All authorized repair or maintenance service items performed under this task shall be in accordance with Section 1 and Section 2 Item 2.3 of the Amended and Restated Master Agreement. Work above the limits set forth in Section B, Item 1.5 and 1.5.1 of this Project Authorization or Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Project Authorization. The Consultant shall prepare a detailed scope of work to be accomplished, list of deliverables, schedule for completion, and a not-to-exceed detailed cost proposal for its completion and present to the County for review and written approval prior to commencement of the proposed work. These services may be paid on a time and materials basis or lump sum basis as mutually agreed by the County. The County's project authorization number shall be submitted on the invoice in order for payment to be made.

D. **Project Authorization Period**

Services shall commence on or about January 1, 2013, and continue until **December 31, 2015**, or until all work let during this period is completed, unless previously terminated as provided herein or as otherwise agreed to in writing by the parties.

E. **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 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, the 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; 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.

F. Compensation

The Consultant shall be compensated for the services provided under the Agreement and this scope of work as follows:

1. Project Price

1.1 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 project. The Consultant shall be compensated on a time and material basis, based on the rates set forth below and in the Amended and Restated Master Agreement to perform the work associated with each task, not to exceed the amounts listed below. Maximum Total Task Price

includes fees and reimbursable expenses that have been agreed to by the both parties in accordance with the Amended and Restated Master Agreement Exhibit C – Fee Schedule. The County shall not reimburse for fax, phone, postage or copies and other items as identified in Exhibit C – Fee Schedule.

1.2 A Summary breakdown of the Project fees is attached.

1.3 A detailed breakdown of Reimbursable Expenses is included in the attached.

1.4 PROJECT TOTAL NOT TO EXCEED: \$947,286.00

*Note: Invoices submitted for cost under the following categories shall be in accordance with this Amended and Restated Project Authorization and Amended and Restated Master Agreement Exhibit “C”.

G. Payment and Invoicing

1. The terms of payment are Net 30 days after approval of the invoice.
2. 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. Consultant shall be compensated for services rendered and accepted under this Agreement and shall be paid monthly, in arrears, on a time and material basis not to exceed the per task totals for work performed and services provided.
3. The County shall pay the Consultant 30 days after approval of the invoice.
4. Maintenance and Weekly Submission of Certified Payroll Records. The Consultant and each of its Subcontractors 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 Subcontractors 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 Subcontractors 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 Landfill. 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 Subcontractor’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.

Invoices shall be mailed or delivered to the Department indicated below. The remit to address is:

Stanislaus County
 Department of Environmental Resources Landfill
 Attention: Jami Aggers
 3800 Cornucopia Way, Suite C
 Modesto, California 95358

H. Representatives

The County’s representatives are Jami Aggers, (209) 535-6768 and Gerry Garcia, (209) 837- 4816. The Consultant’s representatives are Bryan Stirrat as the primary contact, Lee Daigle as Landfill Gas contact and Greg

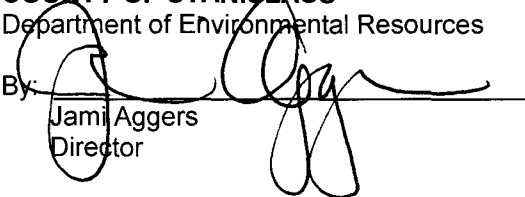
Acosta as the Groundwater contact.

I. 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.

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Project Authorization Number 13-004AR-SMG on January 9, 2015

COUNTY OF STANISLAUS
Department of Environmental Resources

By: 
Jami Aggers
Director

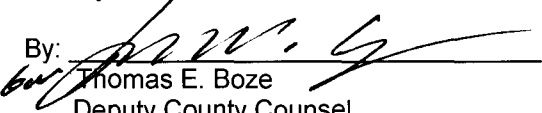
"County"

TETRA TECH BAS, INC.

By: 
Bryan A. Stirrat
President

"Consultant"

APPROVED AS TO FORM:
John P. Doering
County Counsel

By: 
Thomas E. Boze
Deputy County Counsel



DEPARTMENT OF ENVIRONMENTAL RESOURCES
3800 Cornucopia Way, Suite C, Modesto, CA 95358
Phone: (209) 525-6770
Fax: (209) 525-6773

**AMENDED AND RESTATED PROJECT AUTHORIZATION
Project Number 14-001AR**

For

**Construction Management and Construction Quality Assurance Services for Geer Road Landfill
Gas Collection and Control System Phase III Expansion**

WHEREAS, as of December 11, 2012, (the "Effective Date") the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant"), have entered into a certain Agreement relating to the provisions of monitoring, sampling and reporting services (the "Original Master Agreement"); and

WHEREAS the original *Master Agreement for Professional Design Services* number A101412 entered into on December 11, 2012, was amended and restated under Agreement number A101412AR on January 6, 2015; and

WHEREAS, the County has a need, on an "as needed basis", for Prevailing Wage Work for maintenance, surveying, construction oversight, inspection, observation, repairs, non-routine service calls, and emergency services and the Original Agreement failed to recognize that work requiring the payment of Prevailing Wage would be required under the Agreement; and

WHEREAS, on July 16, 2014, (the "Project Authorization Execution Date") the County and Consultant entered into a certain Project Authorization Agreement relating to the provision of Construction Management and Construction Quality Assurance services for Geer Road Landfill Gas Collection and Control System Phase III Expansion (the "Original Project Authorization"); and

WHEREAS, of the \$91,567 total not to exceed amount authorized under the original Project Authorization PA 14-001-SCM and under this Amended and Restate Project Authorization, \$14,246.56 has been spent as of the signing of this Document; and

WHEREAS, both parties desire to Amend and Restate the Original Project Authorization number 14-001-SCM to be consistent with the Amended and Restated Master Agreement; and

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

A. Terms and Conditions

Except as hereinafter provided, the services provided by the Consultant under this Amended and Restated Project Authorization, shall be subject to the terms and conditions set forth in the *Amended and Restated Master Agreement for Professional Design Services* number A101412AR and its Exhibits 1, C and D made and entered into by and between the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant"), on January 6, 2015.

B. Background

The Geer Road Landfill is located approximately 10 miles southeast of the City of Modesto in Stanislaus County, on the northern bluff of Tuolumne River in central Stanislaus County. The 167-acre site is jointly owned by Stanislaus County and the City of Modesto. It is classified as a Class III landfill

and is currently closed.

When the landfill was in active operation, it was operated by the Stanislaus County Department of Public Works, and accepted municipal and cannery wastes from November 1970, until July 1990. The site operated as an area/trench fill sanitary landfill between 1970 and 1990. Approximately 144 acres (footprint) were used for refuse disposal. An estimated 4.5 million tons of municipal solid waste was disposed of at the site. The maximum depth of refuse is estimated to range between 50-60 feet. The Stanislaus County Department of Environmental Resources currently maintains the landfill as a closed facility.

The site is within a meander bend of the Tuolumne River. The landfill was capped in 1995 with a final cover system, a geomembrane on the top deck and clay on the side slopes. The final cover is a modified California Title 23, Chapter 15 design. The top deck cover (approximately 51 acres) consists of a 1-foot foundation layer overlain by a 60-mil High Density Polyethylene (HDPE) geo-membrane that is protected by a 1-foot thick vegetative cover layer. The side-slope has a 1-foot clay barrier in place of the HDPE. The cap was installed to divert rainfall from the landfill waste and to reduce the generation of leachate. A landfill gas (LFG) extraction system was installed in two (2) phases, with two (2) well fields covering the site, in 1992 and 1995.

On April 24, 2009, the Regional Water Quality Control Board (RWQCB) issued new Waste Discharge Requirements (WDR) and associated Monitoring and Reporting Program (MRP) Order Number R5-2009-0051 for the Geer Road Landfill. The County was in the process of complying with the requirements of the new WDRs when on April 8, 2011, the RWQCB issued a Cease and Desist Order R5-2011-0021 to the County, which required that the County optimize the existing LFG collection and control system and submit a LFG Extraction System Optimization Report by September 30, 2011. On April 8, 2011, the RWQCB also issued a revised MRP Order Number R5-2011-0022.

On December 9, 2010, the County contracted with Meyers Nave Riback Silver & Wilson, to provide legal advice related to the Geer Road Landfill Cease and Desist Order. Meyers Nave Riback Silver & Wilson, retained Bryan A. Stirrat and Associates on behalf of the County to review existing site data and conduct certain environmental investigations, and develop remedial recommendations for the site. On May 18, 2011, Bryan A. Stirrat and Associates recommended certain remedial action be taken by the County.

Under a previous Master Agreement Number A072711, two (2) Project Authorizations (PA 11-002 and PA 12-002) authorized Tetra Tech BAS to perform what was designated as Phase I and Phase II repairs to optimize the existing LFG collection and control system at the County's Geer Road Landfill to help control LFG migration. On August 18, 2011, (the commencement date) Phase I repairs included the regrading of landfill gas header lines to allow proper drainage of condensate throughout the system. This provided sufficient vacuum throughout the entire landfill gas collection and control system (GCCS). Furthermore, under previous Master Agreement Number A072711, PA 11-003 and 12-002, repairs were performed on numerous components including the UV sensor at the flare stack, the condensate injection system, and the condensate storage tank, including the replacement of the condensate injection pump. The completion of the Phase I repairs enabled the system to be brought to operational status and allowed the GCCS system to be optimized. Tetra Tech BAS was authorized under Professional Design Services Agreement Number A091511 dated September 22, 2011, to prepare a LFG Extraction System Optimization Report and submit to the County.

On May 16, 2012, (the commencement date) Phase II repairs included further header line regrading and stabilization, replacement and standardization of condensate pumps, replacement of numerous vertical extraction wellheads, replacement of the flare station's programmable logic controller (PLC), and repair or replacement of additional ancillary components. The completion of these activities further improved overall system performance.

A Vadose Zone Investigation was also concurrently performed during the Operations, Monitoring and Maintenance (OMM) of the GCCS at the Landfill. This investigation was performed to determine the impact on the vadose zone through the operation of vadose zone extraction wells with a reduced vacuum. The results of this investigation were summarized in two reports that were submitted to the Regional Water Quality Control Board (RWQCB) in July and October 2012. The results indicated that the

operation of the vadose zone extraction wells with a minimal vacuum was positively impacting the vadose zone; meaning the concentrations of landfill gas significantly decreased with the reduction in vacuum applied to the system. At a meeting on November 14, 2012, the RWQCB informed the County that the request submitted in the summary reports to suspend the operation of the vadose zone wells had been declined. The RWQCB stated that in order to remove the vadose zone extraction wells from the active GCCS, replacement wells would be required.

On December 28, 2012, a Report of Waste Discharge was submitted to the RWQCB. The Report included a recommendation to install a 20 vertical landfill gas (LFG) extraction well expansion in order to satisfy regulatory requirements. This recommendation is also consistent with the discussion and direction received from the RWQCB during the February 26, 2013, meeting between the County and the RWQCB. The following Scope of Work identifies the Work covered under this Project Authorization.

C. Prevailing Wage

Prevailing Wage Laws as defined in Section 1720 of the California Labor Code, et seq., and 1770 et seq., as well as California Code of Regulations, Title 8, Section 16000 et seq., ("Prevailing Wage Laws"), require the payment of prevailing wage rates and the performance of other requirements on certain "public work" and "maintenance" projects. This shall include certain work performed during the design and preconstruction phase of construction including, but not limited to, inspection, observation and land surveying work. Work shall also be in accordance with Section 2.3 of the Amended and Restated Master Agreement.

D. Scope of Work

1. Task 1 – Pre-Construction Activities

1.1 Consultant shall plan and prepare for the upcoming CM/CQA project. This shall include scheduling of outside services (i.e. hotels and equipment), attendance for CM/CQA staff at the Pre-Bid Meeting, internal Consultant project set up, and review of all applicable construction documents. The fee associated with this task shall be a time and materials cost indicated on the attached cost estimate, Exhibit 1.

2. Task 2 – Construction Management

2.1 Consultant shall provide the on-site observation of construction activities to verify installation in accordance with the design and specifications. Consultant shall provide a full time engineer experienced in observation of construction activities ten hours per day, six days per week for a total of thirty construction days. This task is estimated to be completed in thirty working days. This cost shall not include any delays due to contractor issues. Any additional increases to the total number of work days shall be at a daily rate of \$1,500. This task shall include vehicle and fuel costs, per the rates set forth in the Master Agreement Exhibit C– Fee Schedule, hotel costs (at the federally allowable level for Modesto, CA) and equipment. The fee associated with this task shall be a time and materials cost indicated on the attached cost estimate, Exhibit 1, for thirty days of on-site Construction Management.

3. Task 3 – Construction Quality Assurance

3.1 Consultant shall provide the management of the overall construction project and verify that all applicable codes and requirements are being achieved. Construction Quality Assurance shall be performed by senior members of the Consultant's team with experience in the activities typically associated with construction projects. This task shall be managed from the Consultant's office and shall include remote teleconferences with the Contractor, CM personnel, County and the Design Engineer. The fee associated with this task shall be a time and materials cost indicated on the attached cost estimate, Exhibit 1.

4. Task 4 – Construction Report

4.1 Consultant shall develop, submit, revise, and complete a Construction Report that shall summarize all of the activities performed under the Phase III Expansion. This report shall be developed in accordance with the Central Valley Regional Water Quality Control Board (RWQCB) requirements and shall be submitted to the Central Valley RWQCB upon approval of the County for inclusion in their records. This Construction Report shall include all applicable materials regarding the construction project including but not limited to submittals, schedules, construction meeting agendas, construction meeting minutes, boring logs and as-built drawings. The fee associated with this task shall be a time and materials cost indicated on the attached cost estimate, Exhibit 1.

5. Task 5 – Engineering Assistance

5.1 Consultant shall make available design staff through the construction period should questions arise. Typically, this task is already incorporated in the design budget; however, for this project the design phase ceases upon Award of Bid. Consultant shall extend ability to provide engineering support and designer review. The fee associated with this task shall be a time and materials cost indicated on the attached cost estimate, Exhibit 1.

6. Scope of Work Assumptions

- 6.1 A total of thirty working days shall be required for the completion of this project;
- 6.2 The project schedule shall be in accordance with the schedule included in the Request for Bid documents for the Phase III Expansion;
- 6.3 Contractor shall work Monday through Friday, ten hours per day only;
- 6.4 Federal per diem shall be required (\$51 per day); and
- 6.5 Federal housing allocation is required (\$84 per day).

E. Project Timeline

The project timeline for the tasks described in the Scope of Work of this Project Authorization is in Exhibit A of the Master Agreement attached hereto and made a part of this Agreement.

F. Project Authorization Period

Services shall commence on July 1, 2014, or upon the signing of this Agreement, and continue until January 2, 2015, or upon completing the agreed upon services.

G. Compensation

Consultant shall be compensated for the services provided under this Project Authorization as follows:

1. Project Price

1.1 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 project. The Consultant shall be compensated on a time and material basis, based on the rates set forth in the Master Agreement Exhibit "C" – Fee Schedule to perform the work associated with each task, not to exceed the amounts listed below. Maximum Total Task Price includes fees and reimbursable expenses that have been agreed to by the both parties in accordance with the Master Agreement, Exhibit "C" – Fee Schedule. The County shall not reimburse for fax, phone, postage or copies and other items as identified in the Master Agreement Exhibit "C" – Fee Schedule. The County shall not pay a mark-up on travel expenses and items identified in Exhibit "C" – Fee Schedule of the Master Agreement. Consultant shall include all receipts for travel expense reimbursement. Travel expense reimbursement shall be in accordance with Master Agreement Exhibit "C" – Fee Schedule and the County's travel policy.

1.2 The not to exceed total for this Project Authorization consists of the following not

to Exceed fees:

1.2.1	Task 1 – Pre-Construction Activities	\$5,344
1.2.2	Task 2 – Construction Management	\$43,290
1.2.3	Task 3 – Construction Quality Assurance	\$11,478
1.2.4	Task 4 – Construction Report	\$10,611
1.2.5	Task 5 – Engineering Assistance	\$20,844
1.2.6	Total Not Exceed Fee	\$91,567

*Note: Invoices submitted for payment under the above categories shall be in accordance with this Project Authorization, Exhibit "1" to this Project Authorization and the Master Agreement Exhibit "C".

1.3 A detailed breakdown of the Fee Schedule for this Project Authorization is attached.

H. Payment and Invoicing

1. 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, payroll records in accordance with Section 2.3 of the Amended and Restated Master Agreement, 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 travel reimbursement and copies of all receipts must accompany the invoice. Travel expenses shall be reimbursed in accordance with Master Agreement Exhibit "C" – Fee Schedule and the County's travel policy which is incorporated herein by reference. Consultant shall be compensated for services rendered and accepted under this Agreement and shall be paid monthly, in arrears, on a time and material basis not to exceed the per-task totals for work performed and services provided. The County's project authorization number shall be submitted on the invoice in order for payment to be made.

2. The County shall pay the Consultant 30 days after approval of the invoice. Invoices shall be mailed or delivered to the remit to address indicated below.

Stanislaus County
 Department of Environmental Resources Landfill
 Attention: Jami Aggers (A101412 PA 14001)
 P.O. Box 86
 Crows Landing, California 95313

I. Representatives

The County's representatives are Jami Aggers, (209) 525-6786 and Gerry Garcia, (209) 837-4816. The Consultant's representatives are Bryan Stirrat as the primary contact, Lee Daigle as Landfill Gas contact.

J. 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.

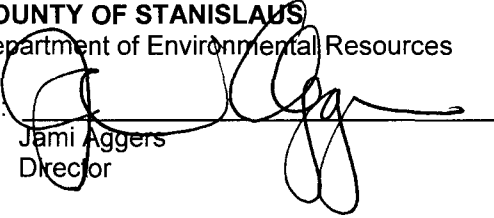
K. Professional Services

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.

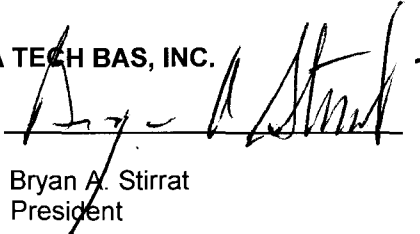
IN WITNESS WHEREOF, the parties have executed this Project No. 14-001AR on January 9, 2015.

COUNTY OF STANISLAUS
Department of Environmental Resources

By: 
Jami Aggers
Director

"County"

TETRA TECH BAS, INC.

By: 
Name: Bryan A. Stirrat
Title: President

"Consultant"

APPROVED AS TO FORM:
John P. Doering
County Counsel

By: 
Thomas E. Boze
Deputy County Counsel

EXHIBIT 1

PROJECT AUTHORIZATION FEE SCHEDULE

TASK	DESCRIPTION	MAXIMUM NOT TO EXCEED TOTAL TASK PRICE
1	Pre-Construction Activities	\$5,344
2	Construction Management	\$43,290
3	Construction Quality Assurance	\$11,478
4	Construction Report	\$10,611
5	Engineering Assistance	\$20,844

TASK 1				
Staff Title	Billing Rate	Hours/Qty	Duration	Maximum not to Exceed Total
Engineer I	\$103	8	1 Each	\$824
Division Engineer	\$213	8	1 Each	\$1,704
Senior Project Designer	\$162	16	1 Each	\$2,592
Project Coordinator	\$112	2	1 Each	\$224
				SUBTOTAL \$5,344
TASK 2				
Staff Title	Billing Rate	Hours/Qty	Duration	Maximum not to Exceed Total
Engineer I	\$103	8 HRS/DAY	30 Days	\$24,720
Engineer I - OT	\$154.50	2 HRS/DAY	30 Days	\$9,270
<i>Reimbursable</i>				
Vehicle Cost	\$15	300		\$4,500
Per Diem Cost	\$51	30		\$1,530
Hotel Cost	\$84	30		\$2,520
Gas Meter Cost	\$500	1.5		\$750
				SUBTOTAL \$43,290
TASK 3				
Staff Title	Billing Rate	Hours/Qty	Duration	Maximum not to Exceed Total
Principal	\$264	1	6 Weeks	\$1,584
Principal Engineer	\$225	1	6 Weeks	\$1,350
Senior Project Manager	\$198	1	6 Weeks	\$1,188
Project Manager	\$187	2	6 Weeks	\$2,244
Division Engineer	\$213	4	6 Weeks	\$5,112
				SUBTOTAL \$11,478
TASK 4				
Staff Title	Billing Rate	Hours/Qty	Duration	Maximum not to Exceed Total
Principal	\$264	2	1 Each	\$528
Principal Engineer	\$225	3	1 Each	\$675
Senior Project Manager	\$198	4	1 Each	\$792
Project Manager	\$187	8	1 Each	\$1,496
Engineer I	\$103	40	1 Each	\$4,120
Division Engineer	\$213	8	1 Each	\$1,704
Senior Project Designer	\$162	8	1 Each	\$1,296
				SUBTOTAL \$10,611

FEE SCHEDULE (CONTINUED)				
TASK 5				
Staff Title	Billing Rate	Hours/Qty	Duration	Maximum not to Exceed Total
Principal	\$264	1	6 Weeks	\$1,584
Senior Project Manager	\$198	4	6 Weeks	\$4,752
Project Manager	\$187	6	6 Weeks	\$6,732
Senior Project Designer	\$162	8	6 Weeks	\$7,776
				SUBTOTAL \$20,844
				TOTAL \$91,567

DEPARTMENT OF ENVIRONMENTAL RESOURCES
3800 Cornucopia Way, Suite C, Modesto, CA 95358
Phone: (209) 525-6770
Fax: (209) 525-6773



**AMENDED AND RESTATED PROJECT AUTHORIZATION
Project Number 13-002AR-SMG**

For

Implementation of the New Report of Waste Discharge at Geer Road Landfill

Amendment 2

WHEREAS, as of December 11, 2012, (the "Effective Date") the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant") have entered into a certain Agreement relating to the provisions of monitoring, sampling and reporting services (the "Original Master Agreement"); and

WHEREAS the original *Master Agreement for Professional Design Services* number A101412 entered into on December 11, 2012, was amended and restated under Agreement number A101412AR on January 6, 2015, as the Original Agreement failed to recognize that work requiring the payment of Prevailing Wage would be required under the Agreement; and

WHEREAS, as of June 27, 2013, (the "Project Authorization Effective Date") the County and Consultant have entered into a certain Project Authorization Agreement relating to the Implementation of the New Report of Waste Discharge (the "Original Project Authorization"); and

WHEREAS, the Consultant prepared and submitted a Verification Testing Work Plan to perform aquifer testing of wells along the proposed alignment of the new GWETS; pilot scale aeration channel testing to demonstrate the effectiveness of this treatment technology; and percolation testing within the Triangle Ranch Property to allow for proper design of the infiltration design for the new GWETS which was billed under original PA 13-001-SMG; and

WHEREAS, the preliminary design for the new GWETS is complete and billed under the original PA 13-001-SMG and the final design shall be completed under this Amended and Restated PA 13-002AR; and

WHEREAS, Tasks 2, and 3, and certain remaining work in Tasks 4 and 5 have been completed under the original Project Authorization 13-002-SMG; and

WHEREAS, certain work in Tasks 4 and 5 of the original Project Authorization 13-002-SMG have been completed and billed under the non-routine services in original PA 13-001-SMG; and

WHEREAS, certain work in Tasks 1 and 6 under the original Project Authorization 13-002-SMG remain to be completed; and

WHEREAS, of the \$86,500 total not to exceed amount authorized under the original Project Authorization PA 13-002-SMG and under this Amended and Restate Project Authorization PA 13-002AR-SMG ("Amendment 1 to PA 13-002-SMG), \$71,121 has been spent as of the signing of Amendment 1; and

WHEREAS, the County's April 19, 2013, Verification Testing Work Plan and October 17, 2014, Verification Testing Work Plan Addendum (Addendum) submitted to the State of California Central Valley Regional Water Quality Control Board (CVRWQCB) was accepted on December 31, 2014, by the CVRWQCB with certain exceptions and/or modification; and

WHEREAS, the CVRWQCB is requiring the County to submit a Well Installation Work Plan documenting the location and completion details of each proposed extraction well and piezometer, as identified in the Verification Testing Work Plan, by January 30, 2015. The details shall include the location of all proposed wells, as well as all nearby wells, which shall be displayed on a Site map, and well construction diagrams shall be provided for each proposed extraction well and piezometer. Each Construction diagram shall be an accurate representation of the proposed wells, documenting all necessary well construction measurements, materials, and depth relationships; and

WHEREAS, the County has a need to increase the "1.3 Project Total" under Section E – Compensation by \$5,000 to compensate the Consultant for their services to prepare and submit a Well installation Work Plan as described in the CVRWQCB's letter dated December 31, 2014; and

WHEREAS, this Amendment is for the mutual benefit of the County and the Consultant; and

NOW, THEREFORE, the County and the Consultant agree as follows:

1. Section B – Scope of Work is amended to add the following to Task 4 – Preparation of Verification Testing Work Plan:

“Task 4A – Well Installation Work Plan

1. As part of the Verification Testing Work Plan submitted by Consultant on October 17, 2014, and subsequent Addendum, and the CVRWQCB acceptance of this item, the Consultant shall prepare a well installation work plan and submit the work plan to the CVRWQCB by January 30, 2015, showing location and construction details for each proposed extraction well and piezometer. In addition, the work plan shall include a site specific health and safety plan (HASP), permitting requirements, and site mobilization details.
2. The work plan shall include construction details for three (3) new extraction wells and three (3) new piezometers showing well construction details, materials, and perforation intervals. A location map with proposed locations of the wells relative to existing wells in the network shall also be included in the work plan. The actual locations of the new wells shall be field verified and minor adjustments shall be made based on site access for the drill rig, subsurface utilities, etc. Prevailing wage work, including, but not limited to, inspection, surveying, flagging, etc., as identified in Section 1 and Section 2, Item 2.3 et seq., of the Amended and Restated Master Agreement, shall be performed under a separate project authorization.”

2. Section C – Project Timeline is amended to add the following to Task 4:

“Task 4A – Well Installation Work Plan submitted to the CVRWQCB by January 30, 2015.”

3. Section E – Compensation 1.2 is amended to add to Task 4 the following:

“Task 4A – Well Installation Work Plan shall not exceed \$5,000”

4. Section E – Compensation 1.3 Project Total is amended as follows:

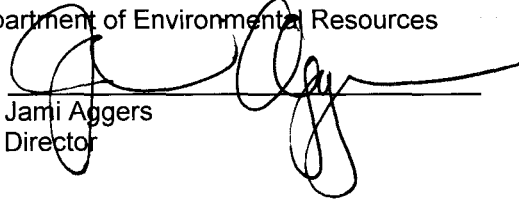
“PROJECT TOTAL: \$91,500”

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

IN WITNESS WHEREOF, the parties have executed this Amendment 2 to the Amended and Restated Project Authorization Number 13-002AR-SMG on January 13, 2015.

[Signatures appear on next page]

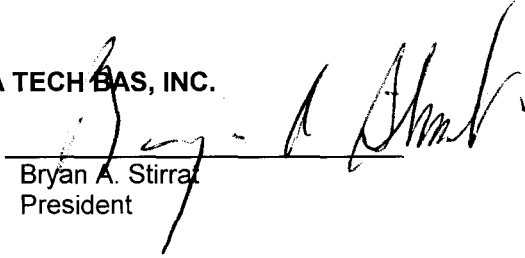
COUNTY OF STANISLAUS
Department of Environmental Resources

By: 

Jami Aggers
Director

"County"

TETRA TECH BAS, INC.


By: 

Bryan A. Stirrat
President

"Consultant"

APPROVED AS TO FORM:

John P. Doering
County Counsel

By: 

Thomas E. Boze
Deputy County Counsel

11/06/2015



DEPARTMENT OF ENVIRONMENTAL RESOURCES
3800 Cornucopia Way, Suite C, Modesto, CA 95358
Phone: (209) 525-6770
Fax: (209) 525-6773

**PROJECT AUTHORIZATION UNDER THE AMENDED AND RESTATED MASTER AGREEMENT
Project Number 14-003AR-SMG**

**For
Storm Water Consulting Services for Industrial General Permit Compliance**

WHEREAS, as of December 11, 2012, (the "Effective Date") the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant"), have entered into a certain Agreement relating to the provisions of monitoring, sampling and reporting services (the "Original Master Agreement"); and

WHEREAS the Original *Master Agreement for Professional Design Services* number A101412 entered into on December 11, 2012, was amended and restated under Agreement number A101412AR on January 6, 2015, to allow "as needed", Prevailing Wage Work to be performed for maintenance, surveying, construction oversight, inspection, observation, repairs, non-routine service calls, and emergency services; and the Original Agreement failed to recognize that work requiring the payment of Prevailing Wage would be required under the Agreement; and

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

A. Terms and Conditions

Except as hereinafter provided, the services provided by the Consultant under this Project Authorization, shall be subject to the terms and conditions set forth in the *Amended and Restated Master Agreement for Professional Design Services* number A101412AR and its Exhibits 1, "C" and "D" made and entered into by and between the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant"), on January 6, 2015.

B. Background

The Geer Road Landfill is located approximately 10 miles southeast of the City of Modesto in Stanislaus County, on the northern bluff of Tuolumne River in central Stanislaus County. The 167-acre site is jointly owned by Stanislaus County and the City of Modesto. It is classified as a Class III landfill and is currently closed.

When the landfill was in active operation, it was operated by the Stanislaus County Department of Public Works, and accepted municipal and cannery wastes from November 1970, until July 1990. The site operated as an area/trench fill sanitary landfill between 1970 and 1990. Approximately 144 acres (footprint) were used for refuse disposal. An estimated 4.5 million tons of municipal solid waste was disposed of at the site. The maximum depth of refuse is estimated to range between 50-60 feet. The Stanislaus County Department of Environmental Resources currently maintains the landfill as a closed facility.

The County is required to prepare a Storm Water Pollution Prevention Plan (SWPPP) for compliance with the pending National Pollutant Discharge Elimination System Permit General Permit for Storm Water Discharges Associated with Industrial Activities Order Number CAS000001 (Industrial General Permit, IGP) which is to become effective on July 1, 2015.

The following Scope of Work identifies the Work covered under this Project Authorization.

C. SCOPE OF WORK

The Consultant shall provide all of the labor, materials and supervision to perform the following Tasks:

Task 1: Review Existing Conditions

- 1.1 Consultant shall review the previously generated storm water monitoring reports and sampling data. Data collected by the Consultant shall be compared to revised effluent limits in the new IGP.
- 1.2 Consultant shall conduct a site visit to evaluate site conditions and determine potential measures to implement for IGP compliance.
- 1.3 Consultant shall prepare a Memorandum regarding Options for Storm Water Compliance Measures and Sampling. The Memorandum shall summarize the changes to the IGP that impact the site, results of the data review, site visit, and recommended options for storm water compliance measures.
- 1.4 Following the County's review of the Memorandum, the Consultant shall conduct a conference call with the County to discuss compliance status, changes needed, the Memorandum (Task 1.3), and Consultant shall prepare a meeting agenda, handouts for the meeting, and meeting minutes that document decisions made in the meeting.

Task 1 – Deliverable Include:

- a. Review Previous Reports and data
- b. Site Visit
- c. Prepare a Memorandum summarizing the changes to the IGP that impact the site, results of the data review, site visit, and recommended options for storm water compliance measures.
- d. Facilitate and participate in a conference with the County call to discuss the memorandum and revisions to the SWPPP. Consultant shall prepare a meeting agenda, handouts, and meeting minutes to document decisions made in the meeting.

Task 2: Prepare SWPPP

Consultant shall prepare a SWPPP for compliance with the Industrial General Permit which shall include:

- 1. Updating Site Maps
- 2. Preparing Draft SWPPP for County Review and Comment
- 3. Preparing Final SWPPP
- 4. Uploading the new SWPPP to the SMARTS database, at the County request.

Task 2 – Deliverables include:

- a. PDF of the Site Maps
- b. PDF of the draft SWPPP for County Review and Comment
- c. PDF of the final SWPPP and two (2) hard copies
- d. At the County's request and at no additional charge, the upload of the new SWPPP to the SMARTS database

D. Project Authorization Period

Services shall commence on February 18, 2015, or upon the signing of this Agreement, and continue until July 1, 2015, or upon completing the agreed upon services.

E. Compensation

Consultant shall be compensated for the services provided under this Project Authorization as follows:

1. Project Price

1.1 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 project. The Consultant shall be compensated on a time and material basis, based on the rates set forth in the Master Agreement Exhibit "C" – Fee Schedule and Exhibit 1 of the Project Authorization, to perform the work associated with each task, not to exceed the amounts listed below. Maximum Total Task Price includes fees and reimbursable expenses that have been agreed to by the both parties in accordance with the Master Agreement, Exhibit "C" – Fee Schedule. The County shall not reimburse for fax, phone, postage or copies and other items as identified in the Master Agreement Exhibit "C" – Fee Schedule. The County shall not pay a mark-up on travel expenses and items identified in Exhibit "C" – Fee Schedule of the Master Agreement. Consultant shall include all receipts for travel expense reimbursement. Travel expense reimbursement shall be in accordance with Master Agreement Exhibit "C" – Fee Schedule and the County's travel policy.

1.2 The not to exceed total for this Project Authorization consists of the following not to exceed fees:

Task 1 Review Existing Conditions

1.1 Review Previous Reports and Data	\$2,108
1.2 Site Visit	\$3,096
1.3 Prepare Memorandum	\$4,600
1.4 Conference call and handouts	\$2,091

Task 2 Prepare SWPPP

2.1 Update Site Maps	\$1,764
2.2 Prepare Draft SWPPP	\$9,186
2.3 Prepare Final SWPPP	\$3,155

Total Not Exceed Fee \$26,000

*Note: Invoices submitted for payment under the above categories shall be in accordance with this Project Authorization, Exhibit "1" to this Project Authorization and the Master Agreement Exhibit "C".

1.3 A detailed breakdown of the Fee Schedule for this Project Authorization is in the attached Exhibit 1 – Fee Schedule.

F. Payment and Invoicing

1. 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, if prevailing wage work is performed payroll records in accordance with Section 2.3 of the Amended and Restated Master Agreement, 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 travel reimbursement and copies of all receipts must accompany the invoice. Travel expenses shall be reimbursed in accordance with Master Agreement Exhibit "C" – Fee Schedule and the County's travel policy which is incorporated herein by reference. Consultant shall be compensated for services rendered and accepted under this Agreement and shall be paid monthly, in arrears, on a time and material basis not to exceed the per-task totals for work performed and services provided. The County's project authorization number shall be submitted on the invoice in order for payment to be made.

2. The County shall pay the Consultant 30 days after approval of the invoice. Invoices shall be mailed or delivered to the remit to address indicated below.

Stanislaus County
Department of Environmental Resources Landfill
Attention: Jami Aggers (A101412AR PA 14-003AR-SMG)
3800 Cornucopia Way, Suite C
Modesto, California 95358

G. Representatives

The County's representatives are Jami Aggers, (209) 525-6786. The Consultant's representatives are Bryan Stirrat as the primary contact, Greg Acosta as Landfill Gas contact.

I. 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.

H. Professional Services

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.

I. Prevailing Wage

Prevailing Wage Laws as defined in Section 1720 of the California Labor Code, et seq., and 1770 et seq., as well as California Code of Regulations, Title 8, Section 16000 et seq., ("Prevailing Wage Laws"), require the payment of prevailing wage rates and the performance of other requirements on certain "public work" and "maintenance" projects. This shall include certain work performed during the design and preconstruction phase of construction including, but not limited to, inspection, observation and land surveying work. Work shall also be in accordance with Section 2.3 of the Amended and Restated Master Agreement.

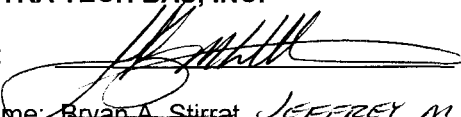
IN WITNESS WHEREOF, the parties have executed this Project No. 14-003AR-SMG on March 3, 2015

COUNTY OF STANISLAUS
Department of Environmental Resources

By: 
Jami Aggers
Director

"County"

TETRA TECH BAS, INC.

By: 
Name: ~~Bryan A. Stirrat~~ JEFFREY M WILLIAMS
Title: ~~President~~ VICE PRESIDENT

"Consultant"

APPROVED AS TO FORM:

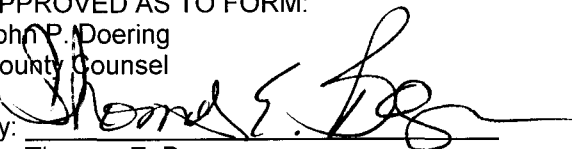
John P. Doering
County Counsel
By: 
Thomas E. Boze
Deputy County Counsel

EXHIBIT 1

PROJECT AUTHORIZATION FEE SCHEDULE

The following is the maximum not to exceed total per Task:

TASK	DESCRIPTION	MAXIMUM NOT TO EXCEED TOTAL TASK PRICE
1.1	Review Previous Reports and Data	\$2,108
1.2	Site Visit	\$3,096
1.3	Memorandum Preparation	\$4,600
1.4	Conference Call and Handouts	\$2,091
2.1	Update Site Maps	\$1,764
2.2	Prepare Draft SWPPP for County Review and Comment	\$9,186
2.3	Prepare Final SWPPP	\$3,155

The following is the detailed fees for the maximum not to exceed Task totals:

Title	Division Engineer	Senior Project Manager	Engineer V	CAD Designer	Word Processor	Other Direct Charges*	Travel	Total
Hourly Unit Rate	\$213	\$198	\$152	\$133	\$88			
TASK	Hours	Hours	Hours	Hours	Hours			
1.1		4	8			\$100		\$2,108
1.2		12				\$120	\$600	\$3,096
1.3	1	2	20	3	4	\$200		\$4,600
1.4	1	2	8		2	\$90		\$2,091
Subtotal								\$11,895
2.1			4	8		\$92		\$1,764
2.2	1	8	40	4	4	\$425		\$9,186
2.3	1	4	12		2	\$150		\$3,155
Subtotal								\$14,105
TOTAL								\$26,000

*NOTE: Other direct reimbursable charges (i.e. overnight deliveries, reproduction, field supplies for site reconnaissance, etc.) shall be in accordance with the Master Agreement Exhibit "C" and this Project Authorization.



DEPARTMENT OF ENVIRONMENTAL RESOURCES
3800 Cornucopia Way, Suite C, Modesto, CA 95358
Phone: (209) 525-6770
Fax: (209) 525-6773

PROJECT AUTHORIZATION UNDER THE AMENDED AND RESTATED MASTER AGREEMENT
Project Number 14-004AR-SMG

For
Geer Road Groundwater Extraction and Treatment System Study
Aeration Channel and Groundwater Conveyance Work Plan

WHEREAS, as of December 11, 2012, (the "Effective Date") the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant"), have entered into a certain Agreement relating to the provisions of monitoring, sampling and reporting services (the "Original Master Agreement"); and

WHEREAS the Original *Master Agreement for Professional Design Services* number A101412 entered into on December 11, 2012, was amended and restated under Agreement number A101412AR on January 6, 2015, to allow "as needed", Prevailing Wage Work to be performed for maintenance, surveying, construction oversight, inspection, observation, repairs, non-routine service calls, and emergency services; and the Original Agreement failed to recognize that work requiring the payment of Prevailing Wage would be required under the Agreement; and

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

A. Terms and Conditions

Except as hereinafter provided, the services provided by the Consultant under this Project Authorization, shall be subject to the terms and conditions set forth in the *Amended and Restated Master Agreement for Professional Design Services* number A101412AR and its Exhibits 1, "C" and "D" made and entered into by and between the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant"), on January 6, 2015.

B. Background

The Geer Road Landfill is located approximately 10 miles southeast of the City of Modesto in Stanislaus County, on the northern bluff of Tuolumne River in central Stanislaus County. The 167-acre site is jointly owned by Stanislaus County and the City of Modesto. It is classified as a Class III landfill and is currently closed.

When the landfill was in active operation, it was operated by the Stanislaus County Department of Public Works, and accepted municipal and cannery wastes from November 1970, until July 1990. The site operated as an area/trench fill sanitary landfill between 1970 and 1990. Approximately 144 acres (footprint) were used for refuse disposal. An estimated 4.5 million tons of municipal solid waste was disposed of at the site. The maximum depth of refuse is estimated to range between 50-60 feet. The Stanislaus County Department of Environmental Resources currently maintains the landfill as a closed facility.

The County is required by the Central Valley Regional Water Quality Control Board (CVRWQCB) to prepare an Aeration Channel and Groundwater Conveyance Work Plan by March 28, 2015, documenting the installation of the proposed aeration channels and the groundwater conveyance piping network, as identified in the Verification Testing Work Plan dated December 31, 2014. The details shall include design drawings and technical specifications for the system and conveyance piping network, a map depicting where each element of the system will be installed, a process flow diagram showing all key elements of the system and preparation and submittal of a San Joaquin Valley Air Pollution Control

District (SJVAPCD) application.

The following Scope of Work identifies the Work covered under this Project Authorization.

C. SCOPE OF WORK

The Consultant shall provide all of the labor, materials and supervision to perform the following Tasks.

Task 1 Survey piping and aeration channel alignment

- 1.1 Consultant shall mobilize a 2-man survey crew to the Geer Road Landfill site to complete a topographical survey of the proposed extraction well conveyance pipeline. Consultant shall also complete a topographical survey of the proposed alignment for the aeration channel. Consultant shall supplement the information obtained from the survey with topographical data from the County's most recent aerial survey of the site. Consultant shall use the survey data to create the base maps for the 60% Design Drawings of the groundwater extraction system and treatment study (Task 2). Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, soil testing, flagging, construction oversight, etc.) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed in accordance with prevailing wage laws. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.
- 1.2 This task shall be completed on a time and materials basis for a cost not to exceed \$15,276. This assumes that the most current aerial topography for the site shall be sufficient for design of the new groundwater extraction and treatment system.
- 1.3 Direct costs associated with this task shall include travel (2 people for 3 nights) and shall be in accordance with the County's travel policy.

Task 2 60% Design drawings

- 2.1 Consultant shall provide 60% design drawings and technical specifications for the new groundwater extraction and treatment system study and the conveyance piping network.
- 2.2 The 60% Design shall include all elements of the treatment system study including layout of the extraction well pipeline and aeration channel, well connection details, trenching details, well head completion details, a grading plan for the construction of the pilot aeration channel, details for connection of the new header into the existing GWETS header, collection basin details (transfer pump), and details for the aeration channel pilot test. The design shall include how groundwater extracted from each well will be conveyed through each element of the treatment system, where samples will be collected, and where and how treated groundwater will be disposed during the proposed tests.
- 2.3 60% technical specifications shall be prepared for each pilot system.
- 2.4 The 60% design drawings and technical specifications shall be presented in a work plan that will describe in detail the proposed aquifer (pump) testing, percolation testing, and the pilot test of the aeration channel. Work Plan

shall be presented to the County for review prior to Consultant's electronic submittal to the CVRWQCB.

- 2.5 Consultant shall provide a maximum of 10 sheets of design drawings along with specifications and a design report. Design drawings shall be presented to the County for review prior to Consultant's electronic submittal to the CVRWQCB.
- 2.6 100% drawings shall be provided by Consultant under a separate Project Authorization.
- 2.7 This task shall be completed on a time and materials basis for a cost not to exceed \$48,618.

Task 3 Geotechnical Investigation

- 3.1 Consultant shall mobilize to the site to inspect the area where the proposed aeration channel will be installed. Consultant shall collect geotechnical samples during the site visit using a hand auger. Consultant shall deliver the samples to a geophysical laboratory for analysis. Consultant shall present the results of the inspection and analytical testing in a report which shall include over-excavation and grading requirements as well as the information needed to design the anchors for the aeration channel. Report shall be presented to the County for review prior to Consultant's electronic submittal to the CVRWQCB. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, soil testing, flagging, construction oversight, etc.,) as identified in the Amended and Restated Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed in accordance with prevailing wage laws. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.
- 3.2 This task shall be completed on a time and materials basis for a cost not to exceed \$26,688.
- 3.3 Direct costs associated with this task include geotechnical laboratory analytical testing, travel for 2 people for 2 nights and shall be in accordance with the County's travel policy.

Task 4 SJVAPCD application

- 4.1 Consultant shall prepare and submit the SJVAPCD application package for the pilot test of the proposed aeration channel. The application package shall include a summary of the pilot test including projected volatile organic carbon (VOC) emissions during the pilot test.
- 4.2 This task shall be completed on a time and materials basis for a cost not to exceed \$12,734.
- 4.3 County shall pay permit fees for this task directly.

Task 5 Meeting with County and the RWQCB

- 5.1 Consultant's key team members (i.e. Principal, Engineer, Project Manager, Project Engineer and Senior Environmental Scientist) shall attend up to two meetings to provide clarification and facilitate regulatory approvals. The meetings shall take place in either Modesto, at the offices of the County, or

in Rancho Cordova, at the offices of the Regional Water Quality Control Board. Consultant shall prepare agenda and minutes and provide the agenda and minutes to the County for all meetings.

- 5.2 This task shall be completed on a time and materials basis for a cost not to exceed \$19,500.
- 5.3 Direct costs associated with this task include travel (airfare and rental car) for 4 people, for two trips and shall be in accordance with the County's travel policy.

D. Project Timeline

Consultant shall submit the Aeration Channel and Groundwater Conveyance Work Plan to the CVRWQCB by March 28, 2015.

E. Project Authorization Period

Services shall commence on March 10, 2015, or upon the signing of this Agreement, and continue until March 28, 2015, or upon completing the agreed upon services.

F. 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; 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.

G. Compensation

Consultant shall be compensated for the services provided under this Project Authorization as follows:

1. Project Price

1.1 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 project. The Consultant shall be compensated on a time and material basis, based on the rates set forth in the Master Agreement Exhibit "C" – Fee Schedule and Exhibit 1 of the Project Authorization, to perform the work associated with each task, not to exceed the amounts listed below. Maximum Total Task Price includes fees and reimbursable expenses that have been

agreed to by the both parties in accordance with the Master Agreement, Exhibit "C" – Fee Schedule. The County shall not reimburse for fax, phone, postage or copies and other items as identified in the Master Agreement Exhibit "C" – Fee Schedule. The County shall not pay a mark-up on travel expenses and items identified in Exhibit "C" – Fee Schedule of the Master Agreement. Consultant shall include all receipts for travel expense reimbursement. Travel expense reimbursement shall be in accordance with Master Agreement Exhibit "C" – Fee Schedule and the County's travel policy.

1.2 The not to exceed total for this Project Authorization consists of the following not to exceed fees:

Task	Title	Amount
1.	Survey Piping/Aeration Channel Alignment	\$15,188
2.	60% Design Submittal	\$48,618
3.	Geotechnical Investigation	\$26,360
4.	SJVAPCD Application	\$12,734
5.	Meeting with County and RWQCB	\$19,500
Total Not Exceed Fee		\$122,400

*Note: Invoices submitted for payment under the above categories shall be in accordance with this Project Authorization, Exhibit "1" to this Project Authorization and the Master Agreement Exhibit "C".

1.3 A detailed breakdown of the Fee Schedule for this Project Authorization is in the attached Exhibit 1 – Fee Schedule.

H. Payment and Invoicing

1. The terms of payment are Net 30 days after approval of the invoice.
2. 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, if prevailing wage work is performed payroll records in accordance with Section 2.3 of the Amended and Restated Master Agreement, 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 travel reimbursement and copies of all receipts must accompany the invoice. Travel expenses shall be reimbursed in accordance with Master Agreement Exhibit "C" – Fee Schedule and the County's travel policy which is incorporated herein by reference. Consultant shall be compensated for services rendered and accepted under this Agreement and shall be paid monthly, in arrears, on a time and material basis not to exceed the per-task totals for work performed and services provided. The County's project authorization number shall be submitted on the invoice in order for payment to be made.
3. The County shall pay the Consultant 30 days after approval of the invoice.
4. Maintenance and Weekly Submission of Certified Payroll Records. The Consultant and each of its Subcontractors 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 Subcontractors 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 Subcontractors 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 Landfill. 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 Subcontractor'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.

Invoices shall be mailed or delivered to the remit to address indicated below.

Stanislaus County
Department of Environmental Resources Landfill
Attention: Jami Aggers (A101412AR PA 14-004AR-SMG)
3800 Cornucopia Way, Suite C
Modesto, California 95358

I. Representatives

The County's representatives are Jami Aggers, (209) 525-6786. The Consultant's representatives are Bryan Stirrat as the primary contact, Greg Acosta as Landfill Gas contact.

J. 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.

K. Professional Services

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.

L. Prevailing Wage

Prevailing Wage Laws as defined in Section 1720 of the California Labor Code, et seq., and 1770 et seq., as well as California Code of Regulations, Title 8, Section 16000 et seq., ("Prevailing Wage Laws"), require the payment of prevailing wage rates and the performance of other requirements on certain "public work" and "maintenance" projects. This shall include certain work performed during the design and preconstruction phase of construction including, but not limited to, inspection, observation and land surveying work. Work shall also be in accordance with Section 2.3 of the Amended and Restated Master Agreement. Public Projects Forty-five Thousand dollars (\$45,000) or more are not to be performed under this Agreement in accordance with the State of California Public Contract Code and will be let by a separate contract.

[Signatures appear on next page]

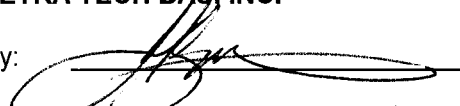
IN WITNESS WHEREOF, the parties have executed this Project No. 14-004AR-SMG on March 5, 2015.

COUNTY OF STANISLAUS
Department of Environmental Resources

By: 
Jami Aggers
Director

"County"

TETRA TECH BAS, INC.

By: 
Name: ~~Bryan A. Stirrat~~ *JEFFREY M WILLIAMS*
Title: ~~President~~ *VICE PRESIDENT*

"Consultant"

APPROVED AS TO FORM:

John P. Doering
County Counsel

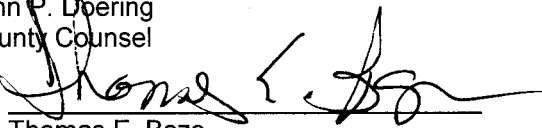
By: 
Thomas E. Boze
Deputy County Counsel

EXHIBIT 1

PROJECT AUTHORIZATION FEE SCHEDULE

The Consultant shall be compensated in accordance with this Project Authorization and the Master Agreement Exhibit C, for services rendered and accepted under this Agreement and shall be paid for charges that are reasonable, on a time and material basis not to exceed the per-task totals as follows:

TASK	DESCRIPTION	MAXIMUM NOT TO EXCEED TOTAL TASK PRICE
1	Survey Piping and Aeration Channel Alignment	\$15,188
2	60% Design Drawings	\$48,618
3	Geotechnical Investigation	\$26,360
4	SJVAPCD Application	\$12,734
5	Meeting with County and RWQCB	\$19,500

The following is the detailed fees for the maximum not to exceed Task totals:

Title	Hourly Unit Rate	Task 1 Survey Piping & Aeration Channel Alignment	Task 2 60% Design Drawings	Task 3 Geotechnical Investigation	Task 4 SJVAPCD Application	Task 5 Meetings	TOTAL COSTS	
LABOR COSTS	Principal	\$264		4	2		20	
	Div. Engineer	\$213	2	20	26	2	20	
	Project Engineer	\$167	2	60	66	8	20	
	Engineer II	\$122	16	160		16		
	Senior Regulatory Compliance Spec.	\$147				48		
	CADD Designer	\$133	16	40	16	8		
	Snr. Env. Scientist	\$156					20	
	2-man Survey Crew	\$258	32					
	Engineer I	\$103		64				
	Environmental Specialist	\$98			24			
	Admin. Assistant	\$100	8	16	8	8		
	Total Hours		76	364	142	90	80	752
Total Labor Cost		\$13,896	\$48,368	\$22,368	\$12,634	\$16,000	\$113,266	
DIRECT COSTS	Analytical Lab	Cost + 10%			\$3,000			
	Other Direct Costs	Cost + 10%		\$250		\$100		
	Reimb. (Travel) Expenses	Per County Travel Policy	\$1,292		\$992		\$3,500	
	Total Direct Costs		\$1,292	\$250	\$3,992	\$100	\$3,500	\$9,134
LABOR AND DIRECT COST SUBTOTALS			\$15,188	\$48,618	\$26,360	\$12,734	\$19,500	\$122,400
TOTAL COST							\$122,400	



DEPARTMENT OF ENVIRONMENTAL RESOURCES
3800 Cornucopia Way, Suite C, Modesto, CA 95358
Phone: (209) 525-6770
Fax: (209) 525-6773

**PROJECT AUTHORIZATION UNDER THE AMENDED AND RESTATED MASTER AGREEMENT
Project Number 14-002AR-SMG**

For

Oversight and Reporting of Well and Piezometer Installation at Geer Road Landfill

WHEREAS, as of December 11, 2012, (the "Effective Date") the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant"), have entered into a certain Agreement relating to the provisions of monitoring, sampling and reporting services (the "Original Master Agreement"); and

WHEREAS the Original *Master Agreement for Professional Design Services* number A101412 entered into on December 11, 2012, was amended and restated under Agreement number A101412AR on January 6, 2015, to allow "as needed", Prevailing Wage Work to be performed for maintenance, surveying, construction oversight, inspection, observation, repairs, non-routine service calls, and emergency services; and the Original Agreement failed to recognize that work requiring the payment of Prevailing Wage would be required under the Agreement; and

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

A. Terms and Conditions

Except as hereinafter provided, the services provided by the Consultant under this Project Authorization, shall be subject to the terms and conditions set forth in the *Amended and Restated Master Agreement for Professional Design Services* number A101412AR and its Exhibits 1, "C" and "D" made and entered into by and between the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant"), on January 6, 2015.

B. Background

The Geer Road Landfill is located approximately 10 miles southeast of the City of Modesto in Stanislaus County, on the northern bluff of Tuolumne River in central Stanislaus County. The 167-acre site is jointly owned by Stanislaus County and the City of Modesto. It is classified as a Class III landfill and is currently closed.

When the landfill was in active operation, it was operated by the Stanislaus County Department of Public Works, and accepted municipal and cannery wastes from November 1970, until July 1990. The site operated as an area/trench fill sanitary landfill between 1970 and 1990. Approximately 144 acres (footprint) were used for refuse disposal. An estimated 4.5 million tons of municipal solid waste was disposed of at the site. The maximum depth of refuse is estimated to range between 50-60 feet. The Stanislaus County Department of Environmental Resources currently maintains the landfill as a closed facility.

On January 30, 2015, the County submitted to the Central Valley Regional Water Quality Control Board (CVRWQCB) an Extraction Well and Piezometer Installation Work Plan describing the technical and management strategies that will be followed during drilling and installation of 3 new extraction wells and 3 new piezometers along the western boundary of the landfill as part of the work described in the April 19, 2013, Verification Testing Work Plan; the Verification Testing Work Plan Addendum dated October 17, 2014, and the Regional Water Quality Control Board letter dated December 31, 2014.

The following Scope of Work identifies the Work covered under this Project Authorization.

C. Scope of Work

The Consultant shall provide all of the labor, materials and supervision to perform the following Tasks:

Task 1 – Permitting and Bid Support

- 1.1 Permitting: Consultant shall prepare and submit well installation permit applications to the County and State (as appropriate) for the three (3) new wells and three (3) new piezometers at Geer Road Landfill.
 - 1.1.1 Consultant shall provide an initial set of the well drilling permit application(s) for the County’s review, implement requested revisions, and coordinate with the agency to obtain approved drilling permits. Consultant shall obtain the County selected drilling contractor’s signature on the well permit application. Once the permit is issued, Consultant shall provide copies to the County selected drilling contractor.
 - 1.1.2 County shall pay the permit application fees for the extraction wells and piezometers.
- 1.2 Bid Support: If requested by the County, the Consultant shall assist the County with technical support during the Request for Quote (RFQ) period including preparation of responses to requests for information in response to bidder’s questions. If requested by the County, the Consultant shall assist the County in the review of the successful bidder’s RFQ response to ensure that RFQ has a comparable base.

Task 2 – Construction Oversight of Drilling, Installation and Sampling Activities

- 2.1 A contractor/consultant shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in Chapter 1771 and Section 1771.1(a) of the California Labor Code, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor/consultant to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor/consultant is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded. Effective April 1, 2015, contractors/consultants must be registered with the Department of Industrial Relations (DIR) to be awarded a public works project, and must submit certified payroll records to the Labor Commissioner.
 - 2.1.1 Certain work under this task is subject to prevailing wage. Prevailing wage work includes performing corrective action maintenance, implementation of corrective action, adjusting, implementation of remedial action, calibrating, cleaning, repairing, installing, observation, oversight and inspection, etc., as identified in Section 1 and Section 2, Item 2.3 et seq., of the Amended and Restated Master Agreement. Work as described Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.
 - 2.1.2 Prevailing Wage: Prevailing Wage Laws as defined in Section 1720 of the California Labor Code, et seq. and 1770 et seq. as well as California Code of Regulations, Title 8, Section 16000 et seq. (“Prevailing Wage Laws”), require the payment of prevailing wage rates and the performance of other requirements on certain “public work” and “maintenance” projects. “Public Work” is defined as construction, alteration, demolition, installation, or repair work done under contract and

paid for in whole or in part out of public funds. This shall include work performed during the design and preconstruction phase of construction including, but not limited to, inspection and land surveying work. Copies of the prevailing rate of per diem wages are on file at the Department of Environmental Resources, and are available to any interested party on request. The Consultant shall cause a copy of the determination of the director of the prevailing rate of per diem wages to be posted at the job site.

- 2.2 Consultant shall provide construction oversight of the County's drilling contractor drilling activities to ensure that the drilling activities are performed in accordance with the plans and specifications and shall document the well and piezometer drilling/development progress. Prevailing wage work includes performing corrective action maintenance, implementation of corrective action, adjusting, implementation of remedial action, calibrating, cleaning, repairing, installing, surveying, flagging, soils testing, observation, oversight and inspection, etc., as identified in Section 1 and Section 2, Item 2.3 et seq., of the Amended and Restated Master Agreement.
- 2.3 County's drilling contractor shall, at the direction of the Consultant, collect the soil samples from the drive sampling device attached to the drill rig during drilling and hand the device to the Consultant. The Consultant shall open the device, log the soil type, record the lithology of each boring, in accordance with the Unified Soil Classification System (USCS), screen the sample, cap and seal the ends of the sample collection tube, label the sample and retain the sample for subsequent off-site testing. Additionally the County's drilling contractor shall collect soil samples from each borehole and provide the collected samples to the Consultant. Consultant shall deliver the collected samples to a state certified laboratory for sieve analyses with a 24-hour rush turnaround time. The total depth and screen placement for each well and piezometer shall be designed by the Consultant based on the lithology recorded in the field as well as, the results of sieve analyses collected at each borehole. Prevailing wage work includes performing corrective action maintenance, implementation of corrective action, adjusting, implementation of remedial action, calibrating, cleaning, repairing, installing, surveying, flagging, soils testing, observation, oversight and inspection, etc., as identified in Section 1 and Section 2, Item 2.3 et seq., of the Amended and Restated Master Agreement.
- 2.4 Consultant shall direct the County's drilling contractor on the construction of each well and piezometer based on borehole lithology and sieve analyses. Consultant shall oversee the installation of each well and piezometer. Based on field observations from the Consultant, the Consultant shall direct the County's drilling contractor to adjust well depths as needed. Consultant shall ensure all Investigation-Derived Waste (IDW [soil cuttings]) are properly labeled and stored in the agreed upon staging location on-site. Prevailing wage work includes performing corrective action maintenance, implementation of corrective action, adjusting, implementation of remedial action, calibrating, cleaning, repairing, installing, surveying, flagging, soils testing, observation, oversight and inspection, etc., as identified in Section 1 and Section 2, Item 2.3 et seq., of the Amended and Restated Master Agreement.
- 2.5 Consultant shall log and record the lithology, subsurface material type, moisture content, depth to ground water table, color, texture, consistency and other observations. Sands, gravels and clays are the predominant subsurface soil types observed during past drilling operations at the site. During drilling, the top of the underlying clay confining unit shall be noted by Consultant.
- 2.6 Consultant shall oversee the County's drilling contractor in the development of all three wells and three piezometers after the minimum 48-hours equilibration period. County's drilling contractor shall deliver the water to the surface and

Consultant shall collect and record water quality measurements using portable field instruments to ensure turbidity measurements are below 10 NTU's and all other parameters have stabilized. Consultant shall direct the County's drilling contractor to the appropriate on-site disposal location at the on-site groundwater extraction and treatment system (GWETS) for purge water collected during development activities. Consultant shall be responsible for treating the discharge water transported by the County's drilling contractor. Prevailing wage work includes performing corrective action maintenance, implementation of corrective action, adjusting, implementation of remedial action, calibrating, cleaning, repairing, installing, surveying, flagging, soils testing, observation, oversight and inspection, etc., as identified in Section 1 and Section 2, Item 2.3 et seq., of the Amended and Restated Master Agreement.

- 2.7 Following the well and piezometer development, Consultant shall survey the wellhead reference points to determine vertical and horizontal coordinates at each location. In addition, Consultant shall collect saturated and unsaturated samples of the drill cutting from each well/piezometer borehole and analyze for Total Petroleum Hydrocarbons – Carbon Chain Length Speciation (EPA 8015), Volatile Organic Compounds (EPA 8260B) and CAM 17 Metals (EPA 6000 series). This testing shall be performed under standard turn-around-times and the results used for disposal of drill cuttings under a separate Project Authorization. Consultant shall collect a total of 12 samples (i.e. one saturated and one unsaturated sample from each location). Prevailing wage work includes performing corrective action maintenance, implementation of corrective action, adjusting, implementation of remedial action, calibrating, cleaning, repairing, installing, surveying, flagging, soils testing, observation, oversight and inspection, etc., as identified in Section 1 and Section 2, Item 2.3 et seq., of the Amended and Restated Master Agreement.
- 2.8 Consultant shall be responsible for the lab analysis and the proper disposal of the cuttings shall be performed by the Consultant under a separate Project Authorization.
- 2.9 Consultant shall provide pre-field Health and Safety Plan.

Task 3– Reporting and Data Management

- 3.1 Consultant shall prepare and submit a draft report for the County's review detailing the completed field activities, geotechnical analysis results, boring logs, and well construction diagrams developed resulting from the well and piezometer installation activities. Consultant shall incorporate comments by the County into the draft report and subsequently submit the finalized report to the RWQCB through the State's Geotracker website. An electronic version and single hard copy of the finalized report shall be provided to the County. The new wells and piezometers shall likewise be added to the Geer Road Landfill's Geotracker page. No hard copy of the final report shall be provided to the RWQCB.

Task 4– Project Management

- 4.1 In support of the activities described herein, Consultant shall manage the daily activities of the project, take part in project conference calls with the County and RWQCB, and provide regular progress updates to the County.

D. Project Timeline

Task Description	Duration
Obtain Well Installation Permit	2 weeks
Prepare Bid Sheet for solicitations (concurrent with permit)	1 week
Contractor Selection	3 weeks
Drill, Construct and Develop Wells	2 weeks
Prepare Well Installation Report Summary of Well Installation Activities (w/ location map) Well Construction Logs Approval letter from SJVAPCD for aeration channel or; Proposal to upgrade GWETs (if needed)	2 weeks

Consultant shall submit the finalized approved report to the RWQCB through the State's Geotracker website by May 29, 2015, provided that the County is able to retain a drilling contractor capable of commencing work on or before May 4, 2015.

E. Project Authorization Period

Services shall commence on April 20, 2015, or the signing of this Agreement, and continue until May 29 2015, or upon completing the agreed upon services.

F. 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; 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(h), 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 \$100 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.

G. Compensation

Consultant shall be compensated for the services provided under this Project Authorization as follows:

1. Project Price

- 1.1 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 project. The Consultant shall be compensated on a time and material basis, based on the rates set forth in the Master Agreement Exhibit "C" – Fee Schedule and Exhibit 1 of the Project Authorization, to perform the work associated with each task, not to exceed the amounts listed below. Maximum Total Task Price includes fees and reimbursable expenses that have been agreed to by the both parties in accordance with the Master Agreement, Exhibit "C" – Fee Schedule. The County shall not reimburse for fax, phone, postage or copies and other items as identified in the Master Agreement Exhibit "C" – Fee Schedule. The County shall not pay a mark-up on travel expenses and items identified in Exhibit "C" – Fee Schedule of the Master Agreement. Consultant shall include all receipts for travel expense reimbursement. Travel expense including use of company vehicles reimbursement shall be in accordance with the County's travel policy.
- 1.2 The not to exceed total for this Project Authorization consists of the following not to exceed fees:

Task	Title	Amount
1.	Permitting and Bid Support	\$ 4,833
2.	Construction Oversight of Drilling, Installation, and Sampling Activities	\$32,688
3.	Reporting and Data Management	\$10,460
4.	Project Management	\$ 2,176
Total Not Exceed Fee		\$50,157

*Note: Invoices submitted for payment under the above categories shall be in accordance with this Project Authorization, Exhibit 1 to this Project Authorization and the Master Agreement Exhibit "C".

- 1.3 A detailed breakdown of the Fee Schedule for this Project Authorization is in the attached Exhibit 1 – Fee Schedule.

H. Payment and Invoicing

- 1. The terms of payment are Net 30 days after approval of the invoice.
- 2. 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, if prevailing wage work is performed payroll records in accordance with Section 2.3 of the Amended and Restated Master Agreement, 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 travel reimbursement and copies of all receipts must accompany the invoice. Travel expenses shall be reimbursed in accordance with the County's travel policy which is incorporated herein by reference. Consultant shall be compensated for services rendered and accepted under this Agreement and shall be paid monthly, in arrears, on a time and material basis not to exceed the per-task totals for work performed and services provided. The County's project authorization number shall be submitted on the invoice in order for payment to be made.
- 3. The County shall pay the Consultant 30 days after approval of the invoice.

4. Maintenance and Weekly Submission of Certified Payroll Records. The Consultant and each of its Subcontractors/subconsultant's 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. Effective April 1, 2015, contractors/consultants and subcontractors/subconsultants must be Department of Industrial Relations (DIR) registered to be awarded a public works project, and must submit certified payroll records to the Labor Commissioner. During the progress of the prevailing wage work, until Final Payment is due, the Consultant and its Subcontractors/subconsultants 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 Subcontractors/subconsultants 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 Landfill. 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 Subcontractor'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.

Invoices shall be mailed or delivered to the remit to address indicated below.

Stanislaus County
Department of Environmental Resources Landfill
Attention: Jami Aggers (A101412AR PA 14-002AR-SMG)
3800 Cornucopia Way, Suite C
Modesto, California 95358

I. Representatives


The County's representatives are Jami Aggers, (209) 535-6768 and Gerry Garcia, (209) 837- 4816. The Consultant's representatives are Bryan Stirrat as the primary contact, Lee Daigle as Landfill Gas contact and Greg Acosta as the Groundwater contact.

J. 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.

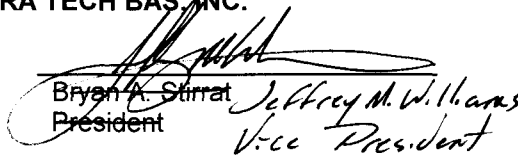
IN WITNESS WHEREOF, the parties have executed this Project Authorization Number 14-002AR-SMG against the Amended and Restate Master Agreement on April 22, 2015.

COUNTY OF STANISLAUS
Department of Environmental Resources

By: 
Jami Aggers
Director

"County"

TETRA TECH BAS, INC.

By: 
Bryan A. Stirrat
President
Jeffrey M. Williams
Vice President

"Consultant"

APPROVED AS TO FORM:

John P. Doering
County Counsel

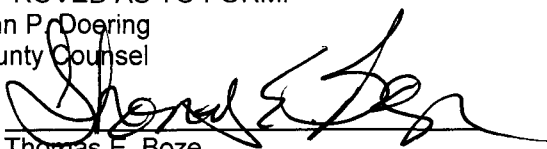
By: 
Thomas E. Boze
Deputy County Counsel

EXHIBIT 1

PROJECT AUTHORIZATION FEE SCHEDULE

The Consultant shall be compensated in accordance with this Project Authorization and the Master Agreement Exhibit "C", for services rendered and accepted under this Agreement and shall be paid for charges that are reasonable, on a time and material basis not to exceed the per-task totals as follows:

Detailed Task Fee Schedule:

Item	LABOR COSTS										DIRECT COSTS			TOTAL
	Div. Eng.	Senior Env. Sci.	Env. Spec. II	Env Spec. I	Adm. Asst.	Chief of Survey Party	1-Man Survey Party w/GPS (PW)	1-Man Survey Party w/GPS (PW-OT)	Total Hours	Total Labor Cost	Analytical & Geotech Lab	Other Direct Costs	*Travel Expense	TOTAL COSTS
	hr. \$213	hr. \$156	hr. \$125	hr. \$109	hr. \$100	hr. \$142	hr. \$198	hr. \$268			cost+ 10%	cost+ 10%		
1. Permitting / Bidding / Site Walk														
1.1 Coordination with County on RFB		8	4						12	\$1,748				\$ 1,748
1.2 Driller Bid Sheet preparation for County		2	2						4	\$562				\$ 562
1.3 Driller Bid review and support	1	8							9	\$1,473				\$ 1,461
1.4 Permitting		2	6						8	\$1,062				\$ 1,062
SUBTOTAL TASK 1													\$ 4,833	
2. Field Implementation & Construction Oversight of Drilling, Installation and Sampling Activities**														
2.1 Pre-field, Health and Safety Plan	1	6	8						15	\$2,161				\$ 2,149
2.2 Travel to and from Site		12	12						24	\$3,372				\$ 3,372
2.4 Drilling & soil sample collection		16	54						70	\$9,246	\$2,020	\$550	\$3,445	\$15,261
2.5 Soil lab (sieve analyses)											\$660			\$ 660
2.6 Extraction Well Development		16	30						46	\$6,246				\$ 6,246
2.7 Piezometer Development			12						12	\$1,500				\$ 1,500
2.8 Wellhead Survey						13	2		15	\$3,110		\$390		\$ 3,500
SUBTOTAL TASK 2													\$32,688	
3. Reporting and Data Management														
3.1 Draft Report		16	32	8	2	5			63	\$8,230				\$ 8,278
3.2 Final Report	2	6	4		2				14	\$2,086		\$120		\$ 2,182
SUBTOTAL TASK 3													\$10,460	
4. Project Management														
4.1 Project Close Out & Invoice Approvals/PM	2	10							12	\$2,010		\$190		\$ 2,176
SUBTOTAL TASK 4													\$ 2,176	
TOTAL COST:													\$50,157	

*NOTE: All travel expenses shall be reimbursed in accordance with the County's travel policy.

**Certain Work under this Task is subject to Prevailing wage. Prevailing wage work includes performing corrective action maintenance, implementation of corrective action, adjusting, implementation of remedial action, calibrating, cleaning, repairing, installing, observation, oversight, inspection, soils testing, surveying, and flagging, etc., as identified in Section 1 and Section 2, Item 2.3 et seq., of the Amended and Restated Master Agreement. Work as described Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.



DEPARTMENT OF ENVIRONMENTAL RESOURCES
3800 Cornucopia Way, Suite C, Modesto, CA 95358
Phone: (209) 525-6770
Fax: (209) 525-6773

**PROJECT AUTHORIZATION UNDER THE AMENDED AND RESTATED MASTER AGREEMENT
Project Number 14-005AR-SM**

For

**Bid Level Plans and Specifications and Bid Support for Piping and Aeration Channel Installation
and Associated Testing at the Geer Road Landfill**

WHEREAS, as of December 11, 2012, (the "Effective Date") the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant"), have entered into a certain Agreement relating to the provisions of monitoring, sampling and reporting services (the "Original Master Agreement"); and

WHEREAS the *Original Master Agreement for Professional Design Services* number A101412 entered into on December 11, 2012, was amended and restated under Agreement number A101412AR on January 6, 2015, to allow "as needed", Prevailing Wage Work to be performed for maintenance, surveying, construction oversight, inspection, observation, repairs, non-routine service calls, and emergency services; and the Original Agreement failed to recognize that work requiring the payment of Prevailing Wage would be required under the Agreement; and

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

A. Terms and Conditions

Except as hereinafter provided, the services provided by the Consultant under this Project Authorization, shall be subject to the terms and conditions set forth in the *Amended and Restated Master Agreement for Professional Design Services* number A101412AR and its Exhibits 1, "C" and "D" made and entered into by and between the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant"), on January 6, 2015.

B. Background

The Geer Road Landfill is located approximately 10 miles southeast of the City of Modesto in Stanislaus County, on the northern bluff of Tuolumne River in central Stanislaus County. The 167-acre site is jointly owned by Stanislaus County and the City of Modesto. It is classified as a Class III landfill and is currently closed.

When the landfill was in active operation, it was operated by the Stanislaus County Department of Public Works, and accepted municipal and cannery wastes from November 1970, until July 1990. The site operated as an area/trench fill sanitary landfill between 1970 and 1990. Approximately 144 acres (footprint) were used for refuse disposal. An estimated 4.5 million tons of municipal solid waste was disposed of at the site. The maximum depth of refuse is estimated to range between 50-60 feet. The Stanislaus County Department of Environmental Resources currently maintains the landfill as a closed facility.

The County was required by the Central Valley Regional Water Quality Control Board (CVRWQCB) to prepare an Aeration Channel and Groundwater Conveyance Work Plan, which Consultant submitted to the CVRWQCB on March 27, 2015, documenting the installation of the proposed aeration channels and the groundwater conveyance piping network, as identified in the Verification Testing Work Plan dated December 31, 2014. The details, prepared to 60% completion, included design drawings and technical specifications for the system and conveyance piping network, a map depicting where each element of the system will be installed, a process flow diagram showing all key elements of the system and preparation and submittal of a San Joaquin Valley Air Pollution Control District

(SJVAPCD) application.

The County is required by the CVRWQCB to submit an addendum to the Work Plan by July 30, 2015 to address 10 items. In addition, the County needs bid level plans and specifications and bid support for the piping and aeration channel installation and associated testing.

The following Scope of Work identifies the Work covered under this Project Authorization.

C. SCOPE OF WORK

The Consultant shall provide all of the labor, materials and supervision to perform the following Tasks.

Task 1 Work Plan Addendum

- 1.1. Consultant shall submit an addendum to the March 27, 2015, Aeration Channel and Groundwater Conveyance System Installation Work Plan ("Addendum") to the CVRWQCB no later than July 20, 2015. Addendum shall address the 10 items requested by the CVRWQCB in their letter dated June 2, 2015.
- 1.2. Consultant shall prepare the Addendum in draft form for County review and comment. Consultant shall incorporate County comments to the Addendum.
- 1.3. Consultant shall submit a final version of the Addendum electronically to the CVRWQCB via Geotracker upload.
- 1.4. County shall pay any permit fees associated with the Addendum.
- 1.5. Consultant shall provide a hardcopy and electronic copy of the Addendum to the County.
- 1.6. Direct costs associated with this task shall include reproduction and delivery charges for the Addendum. There are no site visits or vehicle charges associated with this Task.
- 1.7. This Task shall be completed on a time and materials basis not to exceed \$2,100.

Task 2 Design Finalization

2.1. Aeration Channel and Piping System

- 2.1.1. Consultant shall provide the 90% level plans and technical specifications for the aeration channel and piping system needed to complete the testing program for County review and comment.
 - 2.1.1.1. Consultant shall incorporate County comments to the plans and technical specifications.
- 2.1.2. Consultant shall provide the County with the 100% completed bid level plans and technical specifications, along with an engineer's estimate of the construction costs. The final plan set submittal shall include a total of two (2) full size plan sets, one (1) full size Mylar plan set, two (2) half size (11x17) plan sets and an electronic (PDF) plan set that shall be available to the County as required for the County's bidding process.
 - 2.1.2.1. 100% plans shall be wet stamped (signed and sealed) by a California registered Professional Engineer in accordance with the California Business and Professions Code Section 6735.

- 2.1.2.2. Technical specifications shall be wet stamped (signed and sealed) by a California registered Professional Engineer in accordance with the California Business and Professions Code Section 6735.
 - 2.1.2.3. Engineer's estimate shall be wet stamped (signed and sealed) by a California registered Professional Engineer in accordance with the California Business and Professions Code Section 6735.
- 2.2. Aquifer Testing, Aeration Channel Testing and Triangle Ranch Percolation Testing
- 2.2.1. Consultant shall prepare detailed drawings and written specifications for contractor support in the performance of the aquifer testing, aeration testing and Triangle Ranch percolation testing. A draft version of these drawings and specifications shall be provided to the County for review and comment.
 - 2.2.1.1. Consultant shall incorporate County comments to the drawings and specifications.
 - 2.2.2. Consultant shall provide the County with 100% completed detailed drawings and technical specifications along with an engineer's estimate of the contractor costs. As appropriate given the County's bid solicitation, the final detail drawing set submittal shall include a total of two (2) full size detail drawing sets and one (1) full size mylar detail drawing set; but at a minimum shall include two (2) half size (11x17) detail drawing sets and an electronic (PDF) detail drawing set that shall be available to the County as required for the County's bidding process.
 - 2.2.2.1. 100% plans shall be wet stamped (signed and sealed) by a California registered Professional Engineer in accordance with the California Business and Professions Code Section 6735.
 - 2.2.2.2. Technical specifications shall be wet stamped (signed and sealed) by a California registered Professional Engineer in accordance with the California Business and Professions Code Section 6735.
 - 2.2.2.3. Engineer's estimate shall be wet stamped (signed and sealed) by a California registered Professional Engineer in accordance with the California Business and Professions Code Section 6735.
- 2.3. County shall be responsible for the corresponding bid solicitation and contracting for the aeration channel and piping system and the testing. County shall distribute the invitation to bid and the associated plans and specifications for each solicitation.
- 2.4. Direct costs associated with this task are for reproduction and delivery charges for the aeration channel and piping system and testing plans and specifications. There are no site visits or vehicle charges associated with this task.
- 2.5. This task shall be completed on a time and materials basis not to exceed \$46,700.

Task 3 Bid Support

- 3.1. Consultant shall support the County during the bidding and contractor selection process.
 - 3.1.1. Consultant shall attend a pre-bid site walk hosted by the County. Consultant shall attend each of these meetings with the County and contractors who are preparing to bid on the project. Background information regarding the projects or any specific design issues shall be discussed at these meetings.
 - 3.1.2. Consultant shall provide technical support in reviewing and providing written responses to the bidder requests for information and clarifications for both bid solicitations. The County shall include the Consultant's responses in any addenda that shall be distributed by the County for each bid solicitation.
 - 3.1.3. Once bids are received by the County, and upon request of the County, Consultant shall assist County with the review of the approved lowest responsible and responsive bidder for consistency with the plans, specification and engineer's estimate, and shall provide input to the County on bidder responsiveness. Should any additional follow up questions be required or responses require review, Consultant shall be available to assist the County.
- 3.2. Additionally, the Consultant shall be available to review and revise the design documents if required, due to discrepancies which resulted from negligence of the design plans.
- 3.3. Direct costs associated with this task are reproduction and delivery charges associated with the pre-bid meeting, review and response to bidder requests for information, and review of the lowest responsible and responsive bidder. There is a single site visit for each job walk associated with each of the bid solicitations. Travel and vehicle costs associated with those site visits are included and shall be reimbursed in accordance with the County's travel policy.
- 3.4. This task shall be completed on a time and materials basis not to exceed \$31,500.

Task 4 Project Management

- 4.1. Consultant shall support the County in addressing project related issues and concerns during the design and bid support process. This shall include regular progress updates, as well as supplemental communications regarding deliverables and schedules.
- 4.2. There are no direct costs associated with this task. There are no site visits or vehicle charges associated with this task.
- 4.3. This task shall be completed on a time and materials basis not to exceed \$11,304.

D. Project Timeline

Consultant shall submit the Work Plan Addendum to the CVRWQCB by July 30, 2015.

Consultant shall provide the final design for the aeration channel and piping system, including bid level plans and technical specifications by July 20, 2015 (to coincide w/ the timeline we prepared).

Consultant shall provide the final design for the aquifer testing, aeration channel testing and Triangle Ranch percolation testing by July 20, 2015.

E. Project Authorization Period

Services shall commence on July 6, 2015, or upon the signing of this Agreement, and continue until December 31, 2015, or upon completing the agreed upon services.

F. Compensation

Consultant shall be compensated for the services provided under this Project Authorization as follows:

1. Project Price

1.1 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 project. The Consultant shall be compensated on a time and material basis, based on the rates set forth in the Master Agreement Exhibit "C" – Fee Schedule and Exhibit 1 of the Project Authorization, to perform the work associated with each task, not to exceed the amounts listed below. Maximum Total Task Price includes fees and reimbursable expenses that have been agreed to by the both parties in accordance with the Master Agreement, Exhibit "C" – Fee Schedule. The County shall not reimburse for fax, phone, postage or copies and other items as identified in the Master Agreement Exhibit "C" – Fee Schedule. The County shall not pay a mark-up on travel expenses and items identified in Exhibit "C" – Fee Schedule of the Master Agreement. Consultant shall include all receipts for travel expense reimbursement. Travel expense reimbursement shall be in accordance with Master Agreement Exhibit "C" – Fee Schedule and the County's travel policy.

1.2 The not to exceed total for this Project Authorization consists of the following not to exceed fees:

Task	Title	Amount
1.	Work Plan Addendum	\$2,100
2.	Design Finalization	\$46,700
3.	Bid Support	\$31,500
4.	Project Management	\$11,304
Total Not Exceed Fee		\$91,604

*Note: Invoices submitted for payment under the above categories shall be in accordance with this Project Authorization, Exhibit "1" to this Project Authorization and the Master Agreement Exhibit "C".

1.3 A detailed breakdown of the Fee Schedule for this Project Authorization is in the attached Exhibit 1 – Fee Schedule.

H. Payment and Invoicing

1. The terms of payment are Net 30 days after approval of the invoice.

2. 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, if prevailing wage work is performed payroll records in accordance with Section 2.3 of the Amended and Restated Master Agreement, 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 travel reimbursement and copies of all receipts must accompany the invoice. Travel expenses shall be reimbursed in accordance with Master Agreement Exhibit "C" – Fee Schedule and the County's travel policy which is incorporated herein by reference. Consultant shall be compensated for services rendered and accepted under this Agreement and shall be paid monthly, in arrears, on a time and material basis not to exceed the per-task totals for work performed and services provided. The County's project authorization number shall be submitted on the invoice in order for payment to be made.

3. The County shall pay the Consultant 30 days after approval of the invoice. Invoices shall be mailed or delivered to the remit to address indicated below.

Stanislaus County
Department of Environmental Resources Landfill
Attention: Jami Aggers (A101412AR PA 14-005AR-SMG)
3800 Cornucopia Way, Suite C
Modesto, California 95358

I. Representatives

The County's representatives are Jami Aggers, (209) 525-6786. The Consultant's representatives are Bryan Stirrat as the primary contact, Greg Acosta as Landfill Gas contact.

J. 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.

K. Professional Services

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.

L. Prevailing Wage

Prevailing Wage Laws as defined in Section 1720 of the California Labor Code, et seq., and 1770 et seq., as well as California Code of Regulations, Title 8, Section 16000 et seq., ("Prevailing Wage Laws"), require the payment of prevailing wage rates and the performance of other requirements on certain "public work" and "maintenance" projects. This shall include certain work performed during the design and preconstruction phase of construction including, but not limited to, inspection, observation and land surveying work. Work shall also be in accordance with Section 2.3 of the Amended and Restated Master Agreement. Public Projects Forty-five Thousand dollars (\$45,000) or more are not to be performed under this Agreement in accordance with the State of California Public Contract Code and will be let by a separate contract.

IN WITNESS WHEREOF, the parties have executed this Project No. 14-005AR-SMG on

July 9, 2015

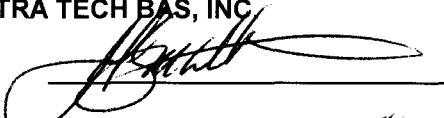
[Signatures appear on the next page]

COUNTY OF STANISLAUS
Department of Environmental Resources

By: 
Jami Aggers
Director

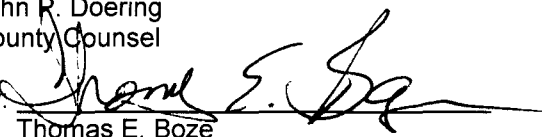
"County"

TETRA TECH BAS, INC

By: 
Name: ~~Bryan A. Stirrat~~ JEFFREY M WILLIAMS
Title: ~~President~~ VICE PRESIDENT

"Consultant"

APPROVED AS TO FORM:
John R. Doering
County Counsel

By: 
Thomas E. Boze
Assistant County Counsel

**EXHIBIT 1
PROJECT AUTHORIZATION FEE SCHEDULE**

The Consultant shall be compensated in accordance with this Project Authorization and the Master Agreement Exhibit C, for services rendered and accepted under this Agreement and shall be paid for charges that are reasonable, on a time and material basis not to exceed the per-task totals as follows:

TASK	DESCRIPTION	MAXIMUM NOT TO EXCEED TOTAL TASK PRICE
1	Work Plan Addendum	\$2,100
2	Design Finalization	\$46,700
3	Bid Support	\$31,500
4	Project Management	\$11,304

The following is the detailed fees for the maximum not to exceed Task totals:

Item	LABOR COSTS								DIRECT COSTS			TOTAL	
	Principal	Div. Engineer	Proj. Engineer	Eng. III	Snr. Env. Sci.	Eng. I	Adm. Assistant	Total Hours	Total Labor Cost	Other Direct Costs	Reimb. (Travel) Expenses*	Vehicle Use	TOTAL COSTS
	hr. \$264	hr. \$213	hr. \$167	hr. \$129	hr. \$156	hr. \$103	hr. \$100			cost+ 10%		Hr. \$15	
1. Addendum to Work Plan													
Prepare Response Memo	1	1	2	8			1	13	\$1,943	\$157			\$2,100
SUBTOTAL TASK 1													\$2,100
2. Design and Engineers Estimate													
90% Piping and Aeration Channel Design Submittal	6	8	24	48		40		126	\$17,608	\$518			\$18,126
Bid Level Piping and Aeration Channel Plans and Specs	2	4	16	24	8		16	70	\$9,996	\$2,000			\$11,996
Aquifer Testing Bid Plans and Specs	2	2		4	40	8	8	64	\$9,334	\$2,000			\$11,334
Prepare Engineers Estimates	2	4	4	12	8		2	32	\$5,044	\$200			\$5,244
SUBTOTAL TASK 2													\$46,700
3. Bid Walk													
Job Walk		16		16	16			48	\$7,968	\$50	\$2,100	\$480	\$10,598
Response to Piping and Aeration Channel Bidder Questions	4	12	20	40				76	\$12,112	\$130			\$12,242
Response to Aquifer Testing Bidder Questions		4	4	4	24			36	\$5,780	\$130			\$5,910
Bid Review		2	4	8	4			18	\$2,750				\$2,750
SUBTOTAL TASK 3													\$31,500
4. Project Management													
Project Management		24		48				72	\$11,304				\$11,304
SUBTOTAL TASK 4													\$11,304
Total Hours	17	77	74	212	100	48	27	555					
Total Cost	\$4,488	\$16,401	\$12,358	\$27,348	\$15,600	\$4,944	\$2,700		\$83,839	\$5,185	\$2,100	\$480	\$91,604
TOTAL COST:													\$91,604

*All travel expenses shall be reimbursed in accordance with the County's travel policy



DEPARTMENT OF ENVIRONMENTAL RESOURCES
 3800 Cornucopia Way, Suite C, Modesto, CA 95358
 Phone: (209) 525-6770
 Fax: (209) 525-6773

**AMENDMENT NO. 2
 TO
 AMENDED AND RESTATED MASTER AGREEMENT
 FOR
 PROFESSIONAL DESIGN SERVICES AT GEER ROAD LANDFILL
 TETRA TECH BAS, INC.**

This Amendment No. 2 to the Agreement for Professional Design Services ("Amendment No. 2") by and between the County of Stanislaus ("County") and Tetra Tech BAS Inc. ("Consultant" is made and entered into on September 15th, 2015.

WHEREAS, as of December 11, 2012, (the "Effective Date") the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant"), have entered into a certain Agreement relating to the provisions of monitoring, sampling and reporting services (the "Original Master Agreement"); and

WHEREAS the Original *Master Agreement for Professional Design Services* number A101412 entered into on December 11, 2012, was amended and restated under Agreement number A101412AR on January 6, 2015, to allow "as needed", Prevailing Wage Work to be performed for maintenance, surveying, construction oversight, inspection, observation, repairs, non-routine service calls, and emergency services; and the Original Agreement failed to recognize that work requiring the payment of Prevailing Wage would be required under the Agreement; and

WHEREAS, the County has a need to amend the Fee Schedule to clarify pricing in Section B - "Other Expenses" for travel and out-of-pocket expenses and supplies; and

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

NOW, THEREFORE, the County and Consultant agree as follows:

1. Exhibit "C" Fee Schedule Section 1.4 Reimbursable items Part B "Other Expenses" is amended as follows:

"

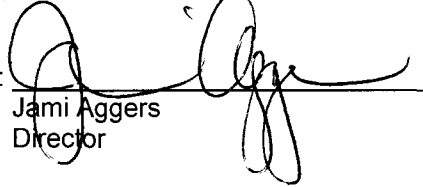
B. Other Expenses	
Company Vehicles	\$15.00/hour
Survey Vehicles	\$15.00/hour
Other Out-of-Pocket Expenses/Supplies	Cost + 10%
Travel	Per County Travel Policy
Equipment Usage	See Fee Schedule Section 1.5
Consultants/Outside Services	Cost + 10%
Construction Services	Cost + 10%
Per Diem for Living Expenses	Per County Travel Policy
CADD Computer Usage	\$10.00/hour
Field Computer Services	\$40.00/week
GPS Survey Equipment Services	\$40.00/hour

"

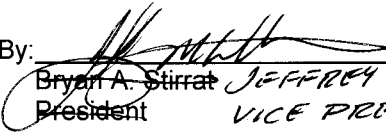
2. Except as stated herein, all other terms and conditions of the Agreement remain unchanged.

IN WITNESS WHEREOF, the parties have executed this Amendment on the date written above.

COUNTY OF STANISLAUS
Department of Environmental Resources

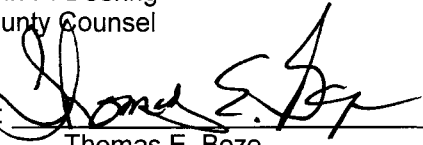
By: 
Jami Aggers
Director

TETRA TECH BAS, INC.

By: 
~~Bryan A. Stirrat~~ *JEFFREY M WILLIAMS*
President *VICE PRESIDENT*

"Consultant"

APPROVED AS TO FORM:
John P. Doering
County Counsel

By: 
Thomas E. Boze
Assistant County Counsel



DEPARTMENT OF ENVIRONMENTAL RESOURCES
3800 Cornucopia Way, Suite C, Modesto, CA 95358
Phone: (209) 525-6770
Fax: (209) 525-6773

**PROJECT AUTHORIZATION UNDER THE AMENDED AND RESTATED MASTER AGREEMENT
Project Number 14-006AR**

For

**Construction Management for the Construction of an Aeration Channel and Groundwater
Conveyance System for the Geer Road Landfill**

WHEREAS, as of December 11, 2012, (the "Effective Date") the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant"), have entered into a certain Agreement relating to the provisions of monitoring, sampling and reporting services (the "Original Master Agreement"); and

WHEREAS the Original *Master Agreement for Professional Design Services* number A101412 entered into on December 11, 2012, was amended and restated under Agreement number A101412AR on January 6, 2015, to allow "as needed", Prevailing Wage Work to be performed for maintenance, surveying, construction oversight, inspection, observation, repairs, non-routine service calls, and emergency services; and the Original Agreement failed to recognize that work requiring the payment of Prevailing Wage would be required under the Agreement; and

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

A. Terms and Conditions

Except as hereinafter provided, the services provided by the Consultant under this Project Authorization, shall be subject to the terms and conditions set forth in the *Amended and Restated Master Agreement for Professional Design Services* number A101412AR and its Exhibits 1, "C" and "D" made and entered into by and between the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant"), on January 6, 2015.

B. Background

The Geer Road Landfill is located approximately 10 miles southeast of the City of Modesto in Stanislaus County, on the northern bluff of Tuolumne River in central Stanislaus County. The 167-acre site is jointly owned by Stanislaus County and the City of Modesto. It is classified as a Class III landfill and is currently closed.

When the landfill was in active operation, it was operated by the Stanislaus County Department of Public Works, and accepted municipal and cannery wastes from November 1970, until July 1990. The site operated as an area/trench fill sanitary landfill between 1970 and 1990. Approximately 144 acres (footprint) were used for refuse disposal. An estimated 4.5 million tons of municipal solid waste was disposed of at the site. The maximum depth of refuse is estimated to range between 50-60 feet. The Stanislaus County Department of Environmental Resources currently maintains the landfill as a closed facility.

The County was required by the Central Valley Regional Water Quality Control Board (CVRWQCB) to prepare an Aeration Channel and Groundwater Conveyance Work Plan, which Consultant submitted to the CVRWQCB on March 27, 2015, documenting the installation of the proposed aeration channels and the groundwater conveyance piping network, as identified in the Verification Testing Work Plan dated December 31, 2014. The details, prepared to 60% completion, included design drawings and technical specifications for the system and conveyance piping network, a map depicting where each element of the system will be installed, a process flow diagram showing all key elements of

the system and preparation and submittal of a San Joaquin Valley Air Pollution Control District (SJVAPCD) application. The County submitted an addendum to the Work Plan to the CVRWQCB on July 30, 2015.

The Consultant prepared 100% bid level plans and technical specifications for the aeration channel and groundwater conveyance system installation and 100% support specifications for pump testing and aeration channel pilot test support. The Consultant shall provide construction management for the installation of an Aeration Channel and Groundwater Conveyance System, in accordance with the specifications and plans previously submitted by Consultant. Once installation is complete, Consultant shall provide technical support to collect and log data generated during the aquifer, aeration and percolation testing. Consultant shall prepare a report at the completion of each task for submittal to the CVRWQCB.

The following Scope of Work identifies the Work covered under this Project Authorization.

C. Scope of Work

The Consultant shall provide all of the labor, materials and supervision to perform the following Tasks:

Task 1 – Construction Management for Installation of Aeration Channel and Groundwater Conveyance System

- 1.1. Consultant shall provide construction management and oversight at the Geer Road Landfill to ensure that the Aeration Channel and Groundwater Conveyance System Installation project is performed in accordance with the plans and specifications.
- 1.2. Consultant shall be the County's on-site representative and the Consultant's construction manager shall be responsible for administration of the work being conducted at the site. The Consultant's construction manager shall maintain communications with the designated County project manager and inform the County as to the status of all aspects of work. The Consultant's construction manager and the County project manager shall discuss and agree upon the distribution procedure of contract documentation, lines of authority, and other administrative issues. The Consultant's construction manager shall not deviate from those procedures unless directed otherwise.
- 1.3. Consultant's staff has been cross-trained in a variety of disciplines which provides for efficient monitoring when multiple activities are being undertaken by the County's hired contractor ("Contractor"). As the Contractor's activities increase, decrease, or the critical nature of the work intensifies, the Consultant's staff shall be adjusted accordingly to provide for an appropriate level of monitoring. One construction manager shall be required on-site at all times, with senior level and staff level support provided only on an as-needed basis.
- 1.4. Consultant shall provide detailed reports of all contractor activities. Consultant shall receive approval from the County project manager prior to any deviations from the project specifications or CQA plan and record any such deviations. All variances shall be documented and shall be maintained on a "cumulative punch" list until repair and/or remediation has been completed.
- 1.5. Consultant shall prepare project documentation so as to successfully resolve conflicts and mitigate potential contractor claims. The following documentation shall be maintained during the project:
 - 1.5.1. Daily Construction Reports: All daily reports shall be finalized by the following day. The report shall include the date, weather, a summary of the equipment working (and non-operating equipment), manpower, material deliveries, visitors to the site, and a narrative. Daily Reports shall be submitted to the County on a weekly basis on Monday of the following week and will cover work through the previous Friday.

- 1.5.2. The narrative portion of the report shall include sufficient information to convey to County the scope of work that occurred on that day and the locations in which the work occurred. Consultant shall document any changes or unforeseen conditions, deficiencies, and when corrective action is required.
- 1.5.3. Certain work under this task is subject to prevailing wage. Prevailing wage work includes performing corrective action maintenance, implementation of corrective action, adjusting, implementation of remedial action, calibrating, cleaning, repairing, installing, observation, oversight and inspection, etc., as identified in Section 1 and Section 2, Item 2.3 et seq., of the Amended and Restated Master Agreement. Work as described Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.
- 1.6. This task shall be completed on a time and materials basis for a cost not to exceed \$93,000. This assumes that the Contractor will be able to complete the Aeration Channel and Groundwater System Installation project in 7 weeks, including Saturday Work. Direct costs associated with this task include travel (1 person for 36 nights) and company vehicle costs in accordance with the Master Agreement rates and County travel policies.

Task 2 – Project Management

- 2.1. Consultant shall attend a single meeting to provide clarification and facilitate regulatory approvals. The meeting shall take place in either Modesto, at the County offices, or in Rancho Cordova at the CVRWQCB offices. Consultant shall be responsible for scheduling and coordinating the meeting with both the County and CVRWQCB.
- 2.2. This task shall be completed on a time and materials basis for a cost not to exceed \$6,400.

D. Project Authorization Period

Services shall commence on November 16, 2015, or the signing of this Agreement, and continue until December 31, 2015, or upon completing the agreed upon services.

E. 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; 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(h), 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 \$100 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.

F. Compensation

Consultant shall be compensated for the services provided under this Project Authorization as follows:

1. Project Price

1.1 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 project. The Consultant shall be compensated on a time and material basis, based on the rates set forth in the Master Agreement Exhibit "C" – Fee Schedule and Exhibit 1 of the Project Authorization, to perform the work associated with each task, not to exceed the amounts listed below. Maximum Total Task Price includes fees and reimbursable expenses that have been agreed to by the both parties in accordance with the Master Agreement, Exhibit "C" – Fee Schedule. The County shall not reimburse for fax, phone, postage or copies and other items as identified in the Master Agreement Exhibit "C" – Fee Schedule. The County shall not pay a mark-up on travel expenses and items identified in Exhibit "C" – Fee Schedule of the Master Agreement. Consultant shall include all receipts for travel expense reimbursement. Travel expense including use of company vehicles reimbursement shall be in accordance with the County's travel policy.

1.2 The not to exceed total for this Project Authorization consists of the following not to exceed fees:

Task	Title	Amount
1.	Construction Management for installation of Aeration Channel and Groundwater Conveyance System	\$93,000
2.	Project Management	\$6,400
Total Not To Exceed Fee		\$99,400

*Note: Invoices submitted for payment under the above categories shall be in accordance with this Project Authorization, Exhibit 1 to this Project Authorization and the Master Agreement Exhibit "C".

1.3 A detailed breakdown of the Fee Schedule for this Project Authorization is in the attached Exhibit 1 – Fee Schedule.

G. Payment and Invoicing

1. The terms of payment are Net 30 days after approval of the invoice.

2. 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, if prevailing wage work is performed payroll records in accordance with Section 2.3 of the Amended and Restated Master Agreement, 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 travel reimbursement and copies of all receipts must accompany the invoice. Travel expenses shall be reimbursed in accordance with the County's travel policy which is incorporated herein by reference. Consultant shall be compensated for services rendered and accepted under this Agreement and shall be paid monthly, in arrears, on a time and material basis not to exceed the per-task totals for work performed and services provided. The County's project authorization number shall be submitted on the invoice in order for payment to be made.

3. The County shall pay the Consultant 30 days after approval of the invoice.

4. Maintenance and Weekly Submission of Certified Payroll Records. The Consultant and each of its Subcontractors/subconsultant's 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. Effective April 1, 2015, contractors/consultants and subcontractors/subconsultants must be Department of Industrial Relations (DIR) registered to be awarded a public works project, and must submit certified payroll records to the Labor Commissioner. During the progress of the prevailing wage work, until Final Payment is due, the Consultant and its Subcontractors/subconsultants 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 Subcontractors/subconsultants 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 Landfill. 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 Subcontractor'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.

Invoices shall be mailed or delivered to the remit to address indicated below.

Stanislaus County
Department of Environmental Resources Landfill
Attention: Jami Aggers (A101412AR PA 14-006AR-SMG)
3800 Cornucopia Way, Suite C
Modesto, California 95358

H. Representatives

The County's representatives are Jami Aggers, (209) 535-6768 and Gerry Garcia, (209) 837- 4816. The Consultant's representatives are Bryan Stirrat as the primary contact, Lee Daigle as Landfill Gas contact and Greg Acosta as the Groundwater contact.

I. 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.

IN WITNESS WHEREOF, the parties have executed this Project Authorization Number 14-006AR against the Amended and Restate Master Agreement on November 16, 2015.

[Signatures appear on next page]

COUNTY OF STANISLAUS
Department of Environmental Resources

By: 
Jami Aggers
Director

"County"

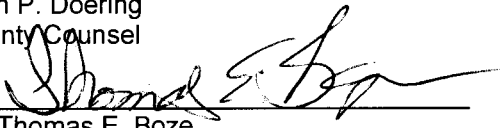
TETRA TECH BAS, INC.

By: 
Bryan A. Stirrat
President

"Consultant"

APPROVED AS TO FORM:

John P. Doering
County Counsel

By: 
Thomas E. Boze
Deputy County Counsel

**EXHIBIT 1
PROJECT AUTHORIZATION FEE SCHEDULE**

The Consultant shall be compensated in accordance with this Project Authorization and the Master Agreement Exhibit "C", for services rendered and accepted under this Agreement and shall be paid for charges that are reasonable, on a time and material basis not to exceed the per-task totals as follows:

Detailed Task Fee Schedule:

Item	LABOR COSTS										DIRECT COSTS				TOTAL	
	Principal hr. \$264	Div. Eng. hr. \$213	Proj. Eng. hr. \$167	Constr. Inspector Prevailing Wage		Snr. Env. Scient ist hr. \$156	Eng. III hr. \$129	Eng. I hr. \$103	Adm. Asst. hr. \$100	Total Labor Cost	Other Direct Costs** Cost + 10%	Lodging County Rates	Per Diem County Rates	Vehicle Use County Rates		TOTAL COSTS
				S.T.* hr. \$152	O.T.* hr. \$198											
1. Construction Management**																
Pre-Construction Submittal Review		2	2				24			28	\$3,856				\$ 3,856	
On-Site Construction Management				232	98					330	\$54,668	\$3960	\$1504	\$5,000	\$65,964	
Engineering Support		20	80					20	20	140	\$21,680	\$500	\$250	\$750	\$23,180	
															SUBTOTAL TASK 1	\$93,000
2. Project Management																
Project Management (1 Meeting)	4	8	12			8				32	\$6,012	\$388			\$6,400	
															SUBTOTAL TASK	\$6,400
															TOTAL:	\$99,400

*NOTE: S.T. and O.T. Construction Inspector work will be performed by either an Engineer I or an Engineer III at prevailing wage rates in accordance with the Labor Code and Department of Industrial Relations published prevailing wage determinations for Northern California. Prevailing wage work includes performing corrective action maintenance, implementation of corrective action, adjusting, implementation of remedial action, calibrating, cleaning, repairing, installing, observation, oversight, inspection, soils testing, surveying, and flagging, etc., as identified in Section 1 and Section 2, Item 2.3 et seq., of the Amended and Restated Master Agreement.

**Other Direct Costs include administrative expenses for travel and document preparation.



PROJECT AUTHORIZATION UNDER THE AMENDED AND RESTATED MASTER AGREEMENT

For

**Geer Road Groundwater Extraction and Treatment Study
Aeration Channel and Groundwater Conveyance Work Plan
Project Number 14-004AR-SMG
Amendment No. 2**

WHEREAS, as of December 11, 2012, (the "Effective Date") the County of Stanislaus ("County") and Tetra Tech BAS Inc., ("Consultant") have entered into a certain Agreement relating to the provisions of monitoring, sampling and reporting services (the "Original Master Agreement"); and

WHEREAS the original *Master Agreement for Professional Design Services* number A101412 entered into on December 11, 2012, was amended and restated under Agreement number A101412AR on January 6, 2015, as the Original Agreement failed to recognize that work requiring the payment of Prevailing Wage would be required under the Agreement; and

WHEREAS, as of March 5, 2015, (the "Project Authorization Effective Date") the County and Consultant have entered into a certain Project Authorization Under the Amended and Restated Master Agreement relating to preparing an Aeration Channel and Groundwater Conveyance Work Plan documenting the installation of the proposed aeration channels and the groundwater conveyance piping network for the Groundwater Extraction and Treatment System (GWETS) at the Geer Road Landfill (the "Project Authorization"); and

WHEREAS, the Master Agreement Section 8.20 – Amendments, provides that the Agreement may be amended in writing; and

WHEREAS, certain tasks performed under this Project Authorization have been completed under budget and the County has a need to perform additional work on the GWETS to redevelop poor performing extraction wells; and

WHEREAS, this Amendment is for the mutual benefit of the County and the Consultant; and

NOW, THEREFORE, the County and the Consultant agree as follows:

1. Section C – Scope of Work is amended to add the following:

"Task 6 Redevelopment of Extraction Wells

- 6.1. Consultant shall provide all the labor, materials and supervision to redevelop poor performing extraction wells at the Geer Road Landfill GWETS. Redevelopment of the wells shall assist in improving overall production of the extraction well field. Consultant shall redevelop the wells over a one week period. Consultant shall redevelop wells based on need and impact to overall well field production, with a target of redeveloping all wells in the wellfield except for well EX-13, which shall be redeveloped as part of the upcoming aquifer testing and aeration channel testing. All site work shall be performed under the direction of the Consultant's field geologist or engineer. All development water shall be contained and delivered to the GWETS system for processing. The activities shall be summarized in the monthly GWETS Operations and Maintenance report.
- 6.2. Prevailing wage work (i.e., maintenance, repairs, emergency service, non-routine service, implementation of remedial action, implementation of corrective action, calibration, inspections, adjustments, drilling, using an auger, surveying, soil testing, flagging, construction oversight, etc.) as identified in the Amended and Restated

Master Agreement Section 1 and Section 2, Item 2.3 et seq., shall be performed in accordance with prevailing wage laws. Work as described in Section 1, Item 1.5 and 1.5.1 of the Amended and Restated Master Agreement shall not be performed under this Agreement.

6.3. Consultant shall perform this work on a time and materials basis for a total not-to-exceed cost of \$24,000."

2. Section E Project Authorization Period is amended to read as follows:

"Services shall commence on **March 10, 2015**, or upon the signing of this Agreement, and continue until **December 4, 2015**, or upon completing the agreed upon services."

3. Section G Compensation 1.2 is amended to read as follows:

"1.2 The not to exceed total for this Project Authorization consists of the following not to exceed fees:

Task	Title	Amount
1	Survey Piping/Aeration Channel Alignment	\$15,188
2	60% Design Submittal	\$43,618
3	Geotechnical Investigation	\$21,360
4	SJVAPCD Application	\$ 8,734
5	Meeting with County and RWQCB	\$ 9,500
6	Redevelopment of Extraction Wells	\$24,000
Total Not to Exceed Fee		\$122,400

Note: Invoices submitted for payment under the above categories shall be in accordance with this Project Authorization, Exhibit "1" to this Project Authorization and the Master Agreement Exhibit C."

4. Exhibit 1 Project Authorization Fee Schedule is amended to read as follows:

"The Consultant shall be compensated in accordance with this Project Authorization and the Master Agreement Exhibit C, for services rendered and accepted under this Agreement and shall be paid for charges that are reasonable, on a time and material basis not to exceed the per-task totals as follows:

TASK	DESCRIPTION	MAXIMUM NOT TO EXCEED TOTAL TASK PRICE
1	Survey Piping and Aeration Channel Alignment	\$15,188*
2	60% Design Drawings	\$43,618*
3	Geotechnical Investigation	\$21,360*
4	SJVAPCD Application	\$8,734
5	Meeting with County and RWQCB	\$9,500*
6	Redevelopment of Extraction Wells	\$24,000

*Work under these tasks has been completed.

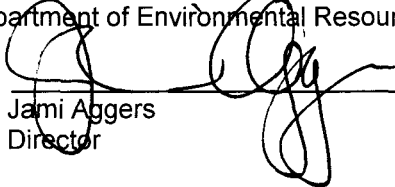
The following is the detailed fee for the maximum not to exceed Task 6 totals:

Title	Units	Rate	Quantity	Cost
Engineer I	Hr.	\$103	48	\$4,944
Technician (PW – Overtime)	Hr.	\$130	24	\$3,120
Vehicle	Hr.	\$15	64	\$960
Travel/Meals/Expenses	LS	Per County Travel Policy		\$976
Drilling Contractor (Cost +10%)	LS	\$14,000	1	\$14,000
			TOTAL	\$24,000

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

IN WITNESS WHEREOF, the parties have executed this Amendment 2 to the Amended and Restated Project Authorization Number 14-004AR-SMG on October 27, 2015.

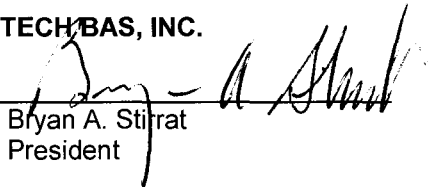
COUNTY OF STANISLAUS
Department of Environmental Resources

By: 

Jami Aggers
Director

"County"

TETRA TECH/BAS, INC.


By: 

Bryan A. Stirrat
President

"Consultant"

APPROVED AS TO FORM:

John P. Doering
County Counsel

By: 

Thomas E. Boze
Assistant County Counsel