AGREEMENT FOR SOLID WASTE PLANNING CONSULTING SERVICES

THIS AGREEMENT is made and entered into this 25th day of February, 2020, by and between the COUNTY OF FRESNO, a Political Subdivision of the State of California, hereinafter referred to as "COUNTY", and Stearns, Conrad, and Schmidt, Consulting Engineers, Inc. dba SCS Engineers, a Virginia Corporation doing business in the State of California, whose address is 438 South Marengo Avenue, Pasadena, CA 91101, hereinafter referred to as "CONSULTANT".

W I T N E S S E T H:

WHEREAS, each local jurisdiction is obligated to divert, at minimum, fifty percent (50%) of waste generated within its boundaries as mandated by the State of California ("State") through enactment of the Integrated Waste Management Act of 1989, codified as Public Resources Code Section 40000, et seq. ("AB 939"); and

WHEREAS, the Fresno County Board of Supervisors ("BOARD"), in 1996, adopted COUNTY's Integrated Waste Management Plan, which consists of a Source Reduction Recycling Element (SRRE), a Household Hazardous Waste Element, a Non-Disposal Facility Element (NDFE), a County Siting Element (SE) and a County Integrated Summary Plan (SP), (collectively "Solid Waste Planning Documents") which established a framework intended to enable COUNTY to achieve compliance with AB 939 requirements; and

WHEREAS, the State enacted Senate Bill 1383 (Chapter 395, Statutes of 2016; hereinafter "SB 1383"), which established short-lived climate pollutant ("SLCP") reduction mandates including requirements for organic waste collection and diversion, as well as edible food recovery; and

WHEREAS, SB 1383 has necessitated the review and potential revision and expansion of local jurisdictions' Solid Waste Planning Documents, public education and outreach programs, solid waste hauler agreements, and solid waste and non-disposal infrastructure in order to continue achieving compliance with waste diversion mandates; and

WHEREAS, COUNTY is now seeking the services of a qualified firm well-versed in solid waste planning and regulations to assist with revising COUNTY's Solid Waste Planning Documents and strategy for implementing State regulations in order to achieve and maintain compliance; and

WHEREAS, COUNTY published Request for Proposal 20-018 (hereinafter "RFP), dated October 25, 2019, with a closing date of November 6, 2019, included as Exhibit A and incorporated by reference herein, which solicited bids for the provision of independent and professional consulting services oriented toward solid waste planning and solid waste regulatory compliance; and

WHEREAS, CONSULTANT submitted a proposal to COUNTY, dated November 6, 2019 in response to the RFP (hereinafter "CONSULTANT's Proposal"), included as Exhibit B and incorporated by reference herein; and

WHEREAS, CONSULTANT's Proposal represents to COUNTY that:

1. CONSULTANT is highly qualified to provide efficient and responsive independent, professional consulting services to COUNTY for the comprehensive revision of COUNTY's solid waste management strategic plan;
2. CONSULTANT is familiar with and has a comprehensive understanding of the solid waste industry, AB 939 and SB 1383 regulatory compliance;
3. CONSULTANT has extensive experience in serving public sector clients'
4. CONSULTANT proposes a skillful team which has worked on similar engagements for other public sector agencies; and

WHEREAS, COUNTY and CONSULTANT desire to enter into an agreement for the provision of consulting services as described in the RFP.

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

I. GENERAL PROVISIONS

A. Each party shall designate a person who shall serve as that party's primary contact for the purpose of administering this Agreement. Such designated person shall be known as a "Primary Contact". The County Public Works and Planning, Resources Division Manager (hereinafter "COUNTY Representative") shall be the COUNTY's Primary Contact for the purpose of administering this Agreement for the COUNTY. Michelle P. Leonard, Project Director/Manager, shall be the Primary Contact for CONSULTANT in CONSULTANT's performance of its services hereunder. Either party to this Agreement may change its Primary Contact at any time by immediately notifying in writing the other

party's then-current Primary Contact of such a change.

B. CONSULTANT will assign CONSULTANT's professionals identified in this Agreement (hereinafter "CONSULTANT's Professional Team") to perform services under this Agreement for the term hereof. CONSULTANT's Professional Team is composed of the following persons either employed directly by CONSULTANT, or as a subconsultant to CONSULTANT:

Name:	**Job Title or Company/Project Role:**
Michelle Leonard	Project Director/Manager
Tracie Onstad-Bills	Senior Staff Professional/Support & Quality Assurance
Karen Luken	Staff Professional/Regulatory Requirements & Related County Ordinances
Lisa Coelho	Staff Professional/Lead - Assessment of Current & Past Solid Waste Plans
Amber Duran	Staff Professional/Project Support
Lynea Baudino	Staff Professional/Project Support
Robert Hilton	HF&H Consultants/Lead - ESAP Assessment & Support
Tracy Swanborn	HF&H Consultants/ESAP Support
Marva Sheehan	HF&H Consultants/ESAP Support
Lauren Barbieri	HF&H Consultants/ESAP Support
Emily Coven	Recyclist/Lead – Data Management
Sara McCadden	Recyclist/Data Support
Patti Raab	Recyclist/Data Manager
Jane Olvera	JP Marketing/Lead – Outreach
Michele Meisch	JP Marketing/Director of Client Services
Judy Soper	JP Marketing/Senior Media Buyer
Katrina Riggs	JP Marketing/Copywriter
Bryan Pickens	JP Marketing/Art Director

1. In addition to the above listed members of CONSULTANT's team, CONSULTANT shall also subcontract with other team members employed by HF&H Consultants. Such team members

will vary, and shall be identified by job title and project role, as follows:

Job Title:	**Company/Project Role:**
Senior Analyst	HF&H Consultants/ESAP Assessment & Support
Associate Analyst	HF&H Consultants/ESAP Assessment & Support
Assistant Analyst	HF&H Consultants/ESAP Assessment & Support
Administrative Staff	HF&H Consultants/ESAP Assessment & Support

C. As more thoroughly set forth in Article VIII, CONSULTANT and the agents and employees of the CONSULTANT, in the performance of the AGREEMENT, shall act in an independent capacity and not as officers or employees of the COUNTY.

D. The parties hereto acknowledge that CONSULTANT, as an independent contractor, intends to use members of CONSULTANT's Professional Team during the term of this Agreement, to provide services to others unrelated to the COUNTY or to this Agreement; however, notwithstanding the provision of such services, CONSULTANT agrees that it will not enter into any other agreements or engagements for other clients which would materially impair CONSULTANT's ability to have such persons available to perform services under this Agreement.

E. If CONSULTANT replaces any of its team with another one of CONSULTANT's professionals, CONSULTANT shall promptly notify the COUNTY thereof in writing and provide a replacement professional, at no additional cost to the COUNTY. Such replacement professional shall possess a similar level of industry knowledge, technical experience and expertise required to allow CONSULTANT to fully and properly carry out its obligations under this Agreement, and such replacement professional shall be one who is, in the normal course of CONSULTANT's business, classified by CONSULTANT at the same or higher professional staff level as the professional replaced. The COUNTY Representative reserves the right to approve or reject any of CONSULTANT's replacement professionals, and the COUNTY Representative shall promptly notify CONSULTANT of the approval or rejection of such replacement professional following COUNTY's receipt of notice of said professional's appointment by CONSULTANT.

II. SCOPE OF WORK

CONSULTANT shall provide consulting services for each of COUNTY's programs as identified hereinbelow in Section IV, Article F, and more thoroughly described in the Scope of Work on Pages 12-14 of RFP 20-018 (Exhibit "A" hereto) and the CONSULTANT's Proposal (Exhibit "B" hereto).

III. OBLIGATIONS OF THE COUNTY

A. The COUNTY Representative and his/her designee(s) shall serve as the administrators of this Agreement. The responsibilities of the COUNTY Representative hereunder shall include scheduling and coordinating meetings with the various stakeholders to obtain their cooperation to enable the CONSULTANT to fulfill its obligations under this Agreement. The COUNTY Representative will provide the CONSULTANT with access to all documents requested by the CONSULTANT to fulfill its obligations under this Agreement, and all available reports and records submitted to the COUNTY by solid waste facilities, haulers and regulators. The CONSULTANT shall provide sufficient, advance information to permit the COUNTY Representative to fulfill his/her responsibilities hereunder.

B. The COUNTY Representative shall meet separately with the CONSULTANT, if deemed necessary by COUNTY, to discuss the progress of CONSULTANT's performance of its obligations hereunder. At these meetings, the COUNTY Representative also shall present, and require that the CONSULTANT address and rectify to the COUNTY Representative's satisfaction, any perceived deviations that CONSULTANT has made from the Work Schedule as defined in Section IV.B. Any revision to the Work Schedule shall be agreed upon in writing by both the COUNTY Representative and the CONSULTANT.

IV. OBLIGATIONS OF THE CONSULTANT

A. CONSULTANT's performance of its services under this Agreement shall be carried out in accordance with all applicable laws and regulations.

B. CONSULTANT shall prepare and submit to the COUNTY Representative a plan and work schedule indicating the timeline for the completion of each Task and submission of related reports ("Work Schedule"). This Work Schedule shall be agreed upon by both the CONSULTANT and the COUNTY Representative.

C. CONSULTANT's services shall be performed as expeditiously as is consistent with

professional skill and the orderly progress of the work, based on the Work Schedule referenced in the immediately preceding Section IV.B.

D. CONSULTANT shall meet separately with the COUNTY Representative, if deemed necessary by COUNTY, to discuss the progress of CONSULTANT's performance of its obligations hereunder. A written and electronic status report on progress with reference to the Work Schedule for each outstanding Task shall be provided by CONSULTANT and discussed during these meetings. At these meetings, the CONSULTANT shall address and discuss CONSULTANT's plan to rectify any deviations from the agreed upon Work Schedule brought to CONSULTANT's attention by the COUNTY Representative. Any revision to the Work Schedule shall be agreed upon in writing by both the COUNTY Representative and CONSULTANT.

E. Any reports, information, or other data prepared or assembled by the CONSULTANT under this Agreement shall not be made available to any individual, organization or entity by CONSULTANT without the express written consent of the COUNTY.

F. CONSULTANT agrees to provide the professional services described below, and as more thoroughly described in the Scope of Work on Pages 12-14 of the RFP, Exhibit "A" hereto. Following CONSULTANT's completion of each of the Tasks listed in Paragraphs 1 through 6, inclusive, of this Section IV.F, and as described in the RFP and the CONSULTANT's Proposal (Exhibit "B" hereto), CONSULTANT shall issue to the COUNTY Representative a written report in compliance with all applicable laws and regulations and in accordance with professional standards. All reports shall be submitted in hard copy and also shall be provided electronically in software acceptable to COUNTY.

Task 1: Assessment of Current and Past Solid Waste Planning Documents

CONSULTANT shall review, assess and provide input and revisions as is necessary to augment and/or improve COUNTY's plans, jurisdictional and regional programs, JPAs, MOUs, and other related documentation for the development of an updated comprehensive Solid Waste Management Master Plan. CONSULTANT understands and acknowledges that the information needs to be appropriate for use in CalRecycle Five-Year Planning documentation.

CONSULTANT shall place special emphasis on organics diversion as it relates to SB 1383 legislation. CONSULTANT shall prepare a report that provides a summary of the review and assessment and shall provide revised planning document drafts for COUNTY review and approval.

1. Jurisdictional Programs
    a. Source Reduction Recycling Elements (SRRE)
    b. Household Hazardous Waste Element (HHWE)
    c. Non-Disposal Facility Element (NDFE)
2. Regional programs
    a. Siting Element
    b. Summary Plan
3. Combined planning documents
    a. Joint Powers Agreements ("JPAs")
        i. JPAs with Cities
        ii. JPAs with Commissions and Committees
    b. Memoranda of Understanding ("MOUs")
        i. MOUs with Cities
        ii. MOUs with Commissions and Committees

Task 2: Exclusive Service Area Program (ESAP) Administration Support and Assessment

Exclusive Service Area Program (ESAP) Agreements for the unincorporated areas of COUNTY were executed with multiple solid waste hauling companies (ESAP Haulers) in 2006 to provide for the collection, and disposal, recycling or other processing as appropriate, of solid waste, recyclable materials and green waste, and successor agreements, including amended and additional provisions, were executed in 2017 with the remaining ESAP Haulers or their approved successors or assignees.

CONSULTANT shall assist the COUNTY with the following:

1. CONSULTANT will assist with the review and assessment of the ESAP Agreements to determine perceived or potential deficiencies and provide recommendations for amendments that strengthen the administration and implementation of the program.

2. CONSULTANT will provide strategies for meeting compliance with California Assembly Bills 341 (AB 341, Mandatory Commercial Recycling) and 1826 (AB 1826, Mandatory Organics Recycling), and propose program implementation.

3. CONSULTANT will provide strategies for meeting compliance with California Senate Bill 1383 (SLCP reduction) including recommendations for program design, implementation, and enforcement.

4. CONSULTANT will provide ongoing support to staff on ESAP related issues as appropriate, including attendance and facilitation of meetings.

5. CONSULTANT will assist staff in evaluating the current ESAP Program, and with planning for the future solid waste collection program to be bid out and implemented in 2028. Activities will include territories, scope of services, logistical requirements (containers, equipment, etc.), reporting requirements, rate structures, financial aspects (service fees paid to COUNTY, etc.), and various other elements of the program.

Task 3: Streamline of Administration and Reporting Processes

This Task will address the streamlining of administration and required reporting processes for (1) all hauler agreements including the Exclusive Area Program (ESAP) and Non-Exclusive Waste Hauler Agreement (NEWHA), (2) permitted facilities and (3) other jurisdictions (incorporated cities) within the territorial boundaries of the COUNTY. CONSULTANT will assist the COUNTY in developing both efficient and effective administrative and reporting processes including:

1. Provide administrative support in the assessment and revision of existing "proprietary" reporting processes within the COUNTY that conform to the requirements of the ESAP Agreements.

2. Assess and recommend revisions for capturing SB 1383 related data for report to CalRecycle.

3. Assist staff with the assessment of potential information technology - based solutions (e.g., developed software platforms, etc.) that enhance the COUNTY's disposal and diversion reporting program, establish efficiencies for staff that track tonnage and hauler service fee and surcharge remittances, and simplify the aggregation of data for reporting to CalRecycle annually.

Task 4: Regulatory Requirements and Related County Ordinances

CONSULTANT will assess and provide recommendations for the revision of various COUNTY ordinances related to solid waste, recycling, and organics programs that address all local, state and federal regulatory requirements. These include:

1. Non-Exclusive Waste Hauling ordinance revisions
2. Construction & Demolition ("C&D") waste management ordinance and related C&D facility regulations (certification, C&D waste flow control, etc.)
3. Organics diversion ordinances and regulations
4. Other areas as the COUNTY Representative deems relevant and appropriate

Task 5: Education and Outreach Programming

CONSULTANT shall:

1. Evaluate current education/outreach strategies that serve the entire COUNTY of Fresno including print and digital materials.
2. Provide recommendations on enhancing the COUNTY's opportunities to educate residents and businesses regarding COUNTY's diversion and disposal programs.
3. Assist staff with developing outreach and education strategies and materials aimed at SB 1383 compliance
4. Assist staff with developing outreach and education strategies and materials aimed at significantly reducing the occurrence of recycling and organics

contamination.

Task 6: Kick-Off Meeting and Project Management

In CONSULTANT's Proposal (Exhibit B hereto), CONSULTANT proposed, and COUNTY by execution of this Agreement hereby accepts, the addition of a sixth additional Task not included in the RFP (Exhibit A hereto), entitled "Kick-off Meeting & Project Management," the intended purposes of which are: to introduce CONSULTANT's team, to gather initial information necessary for CONSULTANT's performance of each of the Tasks required hereunder, and to provide COUNTY with an overview of how all Tasks and other objectives outlined within the RFP will be accomplished.

V. TERM

The term of this Agreement shall be for a period of three (3) years, commencing on February 25, 2020 through and including February 24, 2023. This Agreement may be extended for two (2) additional consecutive twelve (12) month periods upon written approval of both parties no later than thirty (30) days prior to the first day of the next twelve (12) month extension period. The Director of Public Works and Planning or his/her designee is authorized to execute such written approval on behalf of COUNTY based on CONSULTANT's satisfactory performance.

VI. TERMINATION

A. Non-Allocation of Funds - The terms of this Agreement, and the services to be provided hereunder, are contingent on the approval of funds by the appropriating government agency. Should sufficient funds not be allocated, the services provided may be modified, or this Agreement terminated, at any time by giving the CONSULTANT thirty (30) days advance written notice.

B. Breach of Contract - The COUNTY may immediately suspend or terminate this Agreement in whole or in part, where in the determination of the COUNTY there is:

1) An illegal or improper use of funds;

2) A failure to comply with any term of this Agreement;

3) A substantially incorrect or incomplete report submitted to the COUNTY;

4) Improperly performed service.

In no event shall any payment by the COUNTY constitute a waiver by the COUNTY of any breach of this Agreement or any default which may then exist on the part of CONSULTANT, nor shall such payment impair or prejudice any remedy available to the COUNTY with respect to the breach or default. The COUNTY shall have the right to demand of CONSULTANT the repayment to the COUNTY of any funds disbursed to CONSULTANT under this Agreement, which in the judgment of the COUNTY were not expended in accordance with the terms of this Agreement. CONSULTANT shall promptly refund any such funds upon demand.

C. Without Cause - Under circumstances other than those set forth above, this Agreement may be terminated by COUNTY upon providing thirty (30) days advance written notice to CONSULTANT of an intention to terminate.

VII. COMPENSATION/INVOICING

A. Total Fee

Notwithstanding any other provision in this Agreement, the Total Fee for the services required under the initial term of this Agreement shall not exceed Two Hundred Ninety Thousand Dollars ($290,000).

B. Basic Fee

The Fee for services required under Article IV, shall be invoiced at the rates shown in the CONSULTANT's Proposal, and shall not exceed One Hundred Ninety-Six Thousand Four Hundred Ninety-Seven Dollars ($196,497).

1. CONSULTANT's Labor Rates (Dollars Per Hour)

Name	Labor Rates
Michelle Leonard	$275
Tracie Onstad-Bills	$230
Karen Luken	$125
Lisa Coelho	$170
Amber Duran	$140
Lynea Baudino	$125
Robert Hilton	$300

Tracy Swanborn	$250
Marva Sheehan	$270
Lauren Barbieri	$250
Senior Analyst	$200
Associate Analyst	$160
Assistant Analyst	$135
Administrative Staff	$115
Emily Coven	$225
Sara McCadden	$175
Patti Raab	$150
Jane Olvera	$112
Michele Meisch	$112
Judy Soper	$94
Katrina Riggs	$94
Bryan Pickens	$94

2. CONSULTANT estimates that the services described herein shall require a total of approximately 1,145 hours and One Hundred Ninety-Six Thousand Four Hundred Ninety-Seven Dollars ($196,497) for all Tasks. Cost and hours proposed by Task include:

Task	**Hours**	**Cost**
Task 1	172	$28,040
Task 2	377	$81,725
Task 3	112	$21,280
Task 4	88	$14,600
Task 5	356	$41,712
Task 6	40	$ 9,140
TOTAL	1,145	$196,497

C. Other Direct Costs

In addition to the Basic Fee as referenced in the preceding Section VII.B, CONSULTANT shall be reimbursed for direct costs incurred in connection with the performance of its services hereunder. Such direct costs shall include, but are not limited to: airfare, automobile rentals, automobile fuel, automotive mileage, per diem, lodging, document reproduction, and computer processing. Reimbursement of such direct costs during the initial three-year term shall not exceed the cumulative amount of Nine Thousand Dollars ($9,000).

If the term of the Agreement is extended pursuant to Article V, then the cumulative amount of such reimbursable direct costs over the entire extended term of the Agreement shall be increased by Three Thousand Dollars ($3,000) for each additional contract year. Accordingly, reimbursement of such direct costs shall not exceed the cumulative amount of Twelve Thousand Dollars ($12,000) over the course of the entire term if the Agreement is extended only for a fourth contract year, and shall not exceed the cumulative amount of Fifteen Thousand Dollars ($15,000) over the course of the entire term if the Agreement is further extended for the maximum fifth contract year.

D. Extra Services:

1. A maximum allocation of Seventy-Eight Thousand Five Hundred Three Dollars ($78,503) to pay for authorized Extra Services is provided herein by this Section VII.D of the Agreement. Payment of Extra Services in excess of the maximum cumulative amount of Seventy-Eight Thousand Five Hundred Three Dollars $78,503 is prohibited except upon written Amendment to this Agreement.

2. CONSULTANT shall not undertake, and shall not be compensated for providing, any Extra Services without advance written authorization of the COUNTY Representative. CONSULTANT and COUNTY shall expressly confirm in writing the authorization and maximum cost for any such services before CONSULTANT initiates any work thereon.

3. Payment for any such authorized Extra Services will be at the cost rates identified hereinabove in Paragraph 1 of Section VII.B, as appropriate and applicable to the specific Extra Services performed.

4. The following are CONSULTANT services which are not considered to be encompassed by Tasks 1 through 6 or otherwise included in the Basic Fee services described in Article IV, Section F hereinabove, but which nevertheless may be required and thus considered Extra Services,

if expressly and appropriately authorized in advance and in writing by the COUNTY Representative.

a. Providing any of the services described by the CONSULTANT on pages 41-42 of its response to the RFP (CONSULTANT's Proposal, Exhibit B hereto) under the heading of "Optional Tasks," which based upon such description in CONSULTANT's Proposal may include any or each of the following:

(i) SB 1383 Resource Analysis: Based on the selected programs and qualitative program considerations, HF&H Consultants, a subconsultant that is part of CONSULTANT's team (hereinafter "HF&H"), will develop a resource analysis to identify the costs and staffing resources needed to implement (start-up resource requirements) and operate (ongoing resource requirements) the new policies, programs, infrastructure, administration, and enforcement required to comply with SB 1383. In order to produce resource analysis that is specifically relevant to the COUNTY's situation, HF&H will rely on any cost information available from the COUNTY (e.g. for COUNTY staffing and benchmarks around existing programs) as well as information we have in our databases regarding the operating costs of the haulers in Fresno County. In cases where data specific to the COUNTY is not available, the financial and performance forecasts will benefit from HF&H's extensive database of costs and program benchmark statistics from other programs currently operating in the Central Valley.

(ii) SB 1383 Action Plan: HF&H will compile the results of the work in this task into an informative and visually interesting PowerPoint-style SB 1383 Action Plan (Action Plan). The Action Plan will concisely describe each recommendation and identify the key steps in an appropriately phased implementation schedule. The Action Plan will also address each of the critical operational, logistical, and organizational considerations that must be discussed in order to decide upon the COUNTY's specific approach to compliance. The Action Plan would be presented to the Board of Supervisors

and/or the public in the manner described in CONSULTANT's Proposal. The report also will provide more detailed appendices and implementation considerations for use by COUNTY staff to guide the implementation process.

(iii) Evaluation of ESAP Program and Future Planning Program: In anticipation of the 2028 Request for Proposal (hereinafter "Future RFP") for solid waste, recycling, and organics collection services, HF&H will assist COUNTY with advanced planning of the Future RFP and agreement processes for the next generation collection program and subsequent agreement(s). Depending on variables such as significant changes in territories, services or service providers, COUNTY will need approximately three years to conduct the process, including drafting the Future RFP and agreement documents, managing the Future RFP process, evaluating proposals, conducting necessary community engagement, and bringing the decision to the Board of Supervisors for consideration. As such, HF&H will facilitate a series of 4-6 meetings with COUNTY to conduct a collection program design workshop and work through the dozens of issues, business terms, cost consequences, and compliance requirements that will ultimately shape the scope of the Future RFP and subsequent agreement(s). HF&H will generate a process design document that includes all the elements necessary to prepare the Future RFP and subsequent agreement(s).

b. Providing unforeseen, extraordinary, or unique services or items not encompassed by Tasks 1 through 6 or otherwise included in the Basic Fee services described in Article IV, Section F hereinabove, but which are expressly and appropriately authorized in advance and in writing by the COUNTY Representative.

5. In the event the COUNTY Representative expressly authorizes Extra Services in accordance with the foregoing provisions of this Section VII.D, CONSULTANT shall keep complete records showing the hours and description of activities worked by each person assigned to the project

and all costs and charges attributable to the Extra Services work so authorized. Should there be a claim for Extra Services, CONSULTANT agrees and understands that the claim shall identify the activity, the performer of the activity, the reason for the activity, and the COUNTY official requesting performance of the activity or the claim will be denied. CONSULTANT shall be responsible for all subconsultants keeping similar records. The CONSULTANT shall not stop the work, including the work in other areas unrelated to the Extra Services request or claim, unless it can be shown, to the satisfaction of the COUNTY Representative, that the project work cannot proceed while a claim or request for Extra Services is being evaluated.

E. Invoicing

CONSULTANT shall invoice COUNTY on a monthly basis during the term of this Agreement for all services and other direct costs incurred in the performance of all services provided by CONSULTANT under this Agreement. CONSULTANT understands and acknowledges that, consistent with the "PAYMENT" subsection of the "GENERAL REQUIREMENTS AND CONDITIONS" section of the RFP, terms of payment shall be net forty-five (45) days, and COUNTY shall remit payment to CONSULTANT by the end of the forty-fifth (45th) day from the date of receipt of any proper and undisputed invoice submitted to COUNTY by CONSULTANT.

VIII. INDEPENDENT CONTRACTOR

In performance of the work, duties and obligations assumed by CONSULTANT under this Agreement, it is mutually understood and agreed that CONSULTANT, including any and all of CONSULTANT's officers, agents, and employees will at all times be acting and performing as an independent contractor, and shall act in an independent capacity and not as an officer, agent, servant, employee, joint venturer, partner, or associate of the COUNTY. Furthermore, COUNTY shall have no right to control or supervise or direct the manner or method by which CONSULTANT shall perform its work and function. However, COUNTY shall retain the right to administer this Agreement so as to verify that CONSULTANT is performing its obligations in accordance with the terms and conditions thereof.

CONSULTANT and COUNTY shall comply with all applicable provisions of law and the rules and regulations, if any, of governmental authorities having jurisdiction over matters the subject thereof.

Because of its status as an independent contractor, CONSULTANT shall have absolutely no right to

employment rights and benefits available to COUNTY employees. CONSULTANT shall be solely liable and responsible for providing to, or on behalf of, its employees all legally-required employee benefits. In addition, CONSULTANT shall be solely responsible and save COUNTY harmless from all matters relating to payment of CONSULTANT's employees, including compliance with Social Security withholding and all other regulations governing such matters. It is acknowledged that during the term of this Agreement, CONSULTANT may be providing services to others unrelated to the COUNTY or to this Agreement.

IX. MODIFICATION

Any matters of this Agreement may be modified from time to time by the written consent of all the parties without, in any way, affecting the remainder.

X. NON-ASSIGNMENT

Neither party shall assign, transfer or sub-contract this Agreement nor any of its rights or duties under this Agreement, without the prior written consent of the other party.

XI. HOLD HARMLESS

CONSULTANT agrees to indemnify, save, hold harmless, and at COUNTY's request, defend the COUNTY, its officers, agents, and employees from any and all costs and expenses (including attorney's fees and costs), damages, liabilities, claims, and losses occurring or resulting to COUNTY in connection with the performance, or failure to perform, by CONSULTANT, its officers, agents, or employees under this Agreement, and from any and all costs and expenses (including attorney's fees and costs), damages, liabilities, claims, and losses occurring or resulting to any person, firm, or corporation who may be injured or damaged by the performance, or failure to perform, of CONSULTANT, its officers, agents, or employees under this Agreement.

XII. INSURANCE

Without limiting the COUNTY's right to obtain indemnification from CONSULTANT or any third parties, CONSULTANT, at its sole expense, shall maintain in full force and effect, the following insurance policies or a program of self-insurance, including but not limited to, an insurance pooling arrangement or Joint Powers Agreement (JPA) throughout the term of the Agreement:

A. Commercial General Liability

Commercial General Liability Insurance with limits of not less than Two Million Dollars

($2,000,000.00) per occurrence and an annual aggregate of Four Million Dollars ($4,000,000.00). This policy shall be issued on a per occurrence basis. COUNTY may require specific coverages including completed operations, products liability, contractual liability, Explosion-Collapse-Underground, fire legal liability or any other liability insurance deemed necessary because of the nature of this contract.

B. Automobile Liability

Comprehensive Automobile Liability Insurance with limits of not less than One Million Dollars ($1,000,000.00) per accident for bodily injury and for property damages. Coverage should include any auto used in connection with this Agreement.

C. Professional Liability

If CONSULTANT employs licensed professional staff, (e.g., Ph.D., R.N., L.C.S.W., M.F.C.C.) in providing services, Professional Liability Insurance with limits of not less than One Million Dollars ($1,000,000.00) per occurrence, Three Million Dollars ($3,000,000.00) annual aggregate.

D. Worker's Compensation

A policy of Worker's Compensation insurance as may be required by the California Labor Code.

E. Additional Requirements Relating to Insurance

CONSULTANT shall obtain endorsements to the Commercial General Liability insurance naming the County of Fresno, its officers, agents, and employees, individually and collectively, as additional insured, but only insofar as the operations under this Agreement are concerned. Such coverage for additional insured shall apply as primary insurance and any other insurance, or self-insurance, maintained by COUNTY, its officers, agents and employees shall be excess only and not contributing with insurance provided under CONSULTANT's policies herein. This insurance shall not be cancelled or changed without a minimum of thirty (30) days advance written notice given to COUNTY.

CONSULTANT hereby waives its right to recover from COUNTY, its officers, agents, and employees any amounts paid by the policy of worker's compensation insurance required by this Agreement. CONSULTANT is solely responsible to obtain any endorsement to such policy that may be necessary to accomplish such waiver of subrogation, but CONSULTANT's waiver of subrogation under this paragraph is effective whether or not CONSULTANT obtains such an endorsement.

Within thirty (30) days from the date CONSULTANT signs and executes this Agreement,

CONSULTANT shall provide certificates of insurance and endorsement as stated above for all of the foregoing policies, as required herein, to the County of Fresno, ATTN: Jerod Weeks, 2220 Tulare Street, 6th Floor, Fresno CA 93721, stating that such insurance coverages have been obtained and are in full force; that the County of Fresno, its officers, agents and employees will not be responsible for any premiums on the policies; that such Commercial General Liability insurance names the County of Fresno, its officers, agents and employees, individually and collectively, as additional insured, but only insofar as the operations under this Agreement are concerned; that such coverage for additional insured shall apply as primary insurance and any other insurance, or self-insurance, maintained by COUNTY, its officers, agents and employees, shall be excess only and not contributing with insurance provided under CONSULTANT's policies herein; and that this insurance shall not be cancelled or changed without a minimum of thirty (30) days advance, written notice given to COUNTY.

In the event CONSULTANT fails to keep in effect at all times insurance coverage as herein provided, the COUNTY may, in addition to other remedies it may have, suspend or terminate this Agreement upon the occurrence of such event.

All policies shall be issued by admitted insurers licensed to do business in the State of California, and such insurance shall be purchased from companies possessing a current A.M. Best, Inc. rating of A FSC VII or better.

XIII. AUDITS AND INSPECTIONS

CONSULTANT shall at any time during business hours, and as often as the COUNTY may deem necessary, make available to the COUNTY for examination, all of its records and data with respect to the matters covered by this Agreement. CONSULTANT shall, upon request by the COUNTY, permit the COUNTY to audit and inspect all such records and data necessary to ensure CONSULTANT's compliance with the terms of this Agreement.

If this Agreement exceeds ten thousand dollars ($10,000.00), CONSULTANT shall be subject to the examination and audit of the Auditor General for a period of three (3) years after final payment under contract (Government Code Section 8546.7).

XIV. NOTICES

The persons and their addresses having authority to give and receive notices under this Agreement

include the following:

COUNTY OF FRESNO	**CONSULTANT**
Department of Public Works and Planning	SCS Consulting Engineers, Inc.
ATTN: Resources Division Manager	ATTN: Michelle P. Leonard, Vice President
2220 Tulare Street, 6th Floor	438 South Marengo Avenue
Fresno, CA 93721	Pasadena, CA 91101

All notices between the COUNTY and CONSULTANT provided for or permitted under this Agreement must be in writing and delivered either by personal service, by first-class United States mail, by an overnight commercial courier service, or by telephonic facsimile transmission. A notice delivered by personal service is effective upon service to the recipient. A notice delivered by first-class United States mail is effective three COUNTY business days after deposit in the United States mail, postage prepaid, addressed to the recipient. A notice delivered by an overnight commercial courier service is effective one COUNTY business day after deposit with the overnight commercial courier service, delivery fees prepaid, with delivery instructions given for next day delivery, addressed to the recipient. A notice delivered by telephonic facsimile is effective when transmission to the recipient is completed (but, if such transmission is completed outside of COUNTY business hours, then such delivery shall be deemed to be effective at the next beginning of a COUNTY business day), provided that the sender maintains a machine record of the completed transmission. For all claims arising out of or related to this Agreement, nothing in this section establishes, waives, or modifies any claims presentation requirements or procedures provided by law, including but not limited to the Government Claims Act (Division 3.6 of Title 1 of the Government Code, beginning with section 810).

XV. GOVERNING LAW

Venue for any action arising out of or related to this Agreement shall only be in Fresno County, California. The rights and obligations of the parties and all interpretation and performance of this Agreement shall be governed in all respects by the laws of the State of California.

XVI. DISCLOSURE OF SELF-DEALING TRANSACTIONS

This provision is only applicable if CONSULTANT is operating as a corporation (a for-profit or non-profit corporation) or if during the term of the agreement, CONSULTANT changes its status to

operate as a corporation.

Members of CONSULTANT's Board of Directors shall disclose any self-dealing transactions that they are a party to while CONSULTANT is providing goods or performing services under this agreement. A self-dealing transaction shall mean a transaction to which CONSULTANT is a party and in which one or more of its directors has a material financial interest. Members of the Board of Directors shall disclose any self-dealing transactions that they are a party to by completing and signing a Self-Dealing Transaction Disclosure Form, attached hereto as Exhibit C and incorporated herein by reference, and submitting it to the COUNTY prior to commencing with the self-dealing transaction or immediately thereafter.

XVII. ENTIRE AGREEMENT

This Agreement, including all Exhibits attached hereto, constitutes the entire agreement between the CONSULTANT and COUNTY with respect to the subject matter hereof and supersedes all previous Agreement negotiations, proposals, commitments, writings, advertisements, publications, and understandings of any nature whatsoever unless expressly included in this Agreement.

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IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first hereinabove written.

CONSULTANT	**COUNTY OF FRESNO**
M P Leonard, V.P. **(Authorized Signature)**	Ernest Buddy Mendes, Chairman of the Board of Supervisors of the County of Fresno
Michelle P. Leonard, Vice President **Print Name & Title**	
438 South Marengo Avenue Pasadena, CA 91101 **Mailing Address**	**ATTEST:** Bernice E. Seidel Clerk of the Board of Supervisors County of Fresno, State of California
	By: Lisa Curtis Deputy

FOR ACCOUNTING USE ONLY:

FUND:	0701
SUBCLASS:	15001
ORG:	9015
ACCOUNT:	7295

COUNTY OF FRESNO

REQUEST FOR PROPOSAL

NUMBER: 20-018

SOLID WASTE PLANNING CONSULTING SERVICES

Issue Date: October 10, 2019

Closing Date: NOVEMBER 6, 2019 AT Heather Stevens

All Questions and Responses must be electronically submitted on the Bid Page on Public Purchase.

For assistance, contact **Heather Stevens** at Phone (559) 600-7115.

BIDDER TO COMPLETE

Undersigned agrees to furnish the commodity or service stipulated in the attached at the prices and terms stated in this RFP. Bid must be signed and dated by an authorized officer or employee.

COMPANY

CONTACT PERSON

ADDRESS

CITY STATE ZIP CODE

( )
TELEPHONE NUMBER E-MAIL ADDRESS

AUTHORIZED SIGNATURE

PRINT NAME TITLE

TABLE OF CONTENTS

OVERVIEW

The County of Fresno Department of Public Works and Planning, Resources Division is currently seeking proposals for solid waste planning and management consulting services from one or more qualified consultant(s). Consultant(s) must have at least five (5) years of related experience in the planning, analysis, assessment, recommendation, and implementation of successful and sustainable integrated solid waste management programs.

Specifically, the consultant(s) will have direct experience providing services to public sector agencies within the following areas:

1. Formulation and implementation of solid waste planning documents, as required by California Public Resources Code 40000 et seq.
2. Assessment and administrative support of contracted solid waste, recycling, and organics collection services within the public sector (e.g. exclusive service area programs or solid waste franchise agreements)
3. Assessment, formulation and implementation of organics diversion programs including rate structures, logistics, and contractual development of services)
4. Assessment and revision of jurisdictional ordinances governing solid waste, recycling, and organics programs (e.g. mandatory collection implementation, C&D waste management, organics diversion, and ordinances enforcing such programs).
5. Assessment of diversion and disposal reporting processes, support to reporting staff, and evaluation and implementation of potential IT solutions (e.g. software solutions) for diversion and disposal reporting.
6. Public engagement with multiple stakeholders with differing interests and achievement of a common goal relating to jurisdictional solid waste, recycling, and organics programs.
7. Other tasks as appropriate that fall within the general scope of assessment, formulation, implementation, and revision of solid waste diversion and disposal programs within the County.

KEY DATES

RFP Issue Date:	**October 10, 2019**
Bidders' Conference:	**October 22, 2019 at 3:00 PM** County of Fresno - Purchasing 333 W. Pontiac Way Clovis, CA 93612
Written Questions for RFP Due:	**October 24, 2019 at 10:00 AM** Questions must be submitted on the Bid Page.
RFP Closing Date:	**November 6, 2019 at 2:00 PM** Proposals must be electronically submitted on the Bid Page.

BIDDERS' CONFERENCE & SITE INSPECTION:

A bidders' conference will be held in which the scope of the project and proposal requirements will be explained. Addenda will be prepared and distributed to all bidders if questions are submitted.

Bidders are to contact **Heather Stevens** at County of Fresno - Purchasing, (559) 600-7115, if they are planning to attend.

GENERAL REQUIREMENTS & CONDITIONS

TERM: It is County's intent to contract with the successful bidder for a term of three years with the option to renew for up to two additional one year periods based on mutual written consent.

The County reserves the right to terminate any resulting contract upon written notice.

AWARD: The award will be made to the vendor offering the proposal that is deemed the most advantageous to the County. Past performance (County contracts within the past seven years) and references may factor into awarding of a contract. The County will be the sole judge in making such determination. The County reserves the right to reject any and all proposals. Award Notices are tentative. Acceptance of an offer made in response to this RFP shall occur only upon execution of an agreement by both parties or issuance of a valid Purchase Order by Purchasing. After award, all bids shall be open to public inspection. The County assumes no responsibility for the confidentiality of information offered in a bid.

Award may require approval by the County of Fresno – Board of Supervisors.

PARTICIPATION: The bidder may agree to extend the terms of the resulting contract to other political subdivisions, municipalities, and tax-supported agencies. Such participating governmental bodies may make purchases in their own name, make payment directly to the bidder, and be liable directly to the bidder, holding the County of Fresno harmless.

CONFIDENTIALITY: Services performed by the bidder shall be in strict conformance with all applicable Federal, State of California and/or local laws and regulations relating to confidentiality, including but not limited to, California Civil Code, California Welfare and Institutions Code, Health and Safety Code, California Code of Regulations, Code of Federal Regulations.

The bidder shall submit to County's monitoring of said compliance.

The bidder may be a Business associate of County, as that term is defined in the "Privacy Rule" enacted by the Health Insurance Portability and Accountability Act of 1996 (HIPAA). As a HIPAA Business Associate, vendor may use or disclose protected health information ("PHI") to perform functions, activities or services for or on behalf of County, as specified by the County, provided that such use or disclosure shall not violate HIPAA and its implementing regulations. The uses and disclosures of PHI may not be more expansive than those applicable to County, as the "Covered Entity" under HIPAA's Privacy Rule, except as authorized for management, administrative or legal responsibilities of the Business Associate.

The bidder shall not use or further disclose PHI other than as permitted or required by the County, or as required by law without written notice to the County. The bidder shall ensure that any agent, including any subcontractor, to which vendor provides PHI received from, or created or received by the vendor on behalf of County, shall comply with the same restrictions and conditions with respect to such information.

SUBCONTRACTORS: If a subcontractor is proposed, complete identification of the subcontractor and his tasks should be provided. The primary contractor is not relieved of any responsibility by virtue of using a subcontractor. A specialty contractor cannot contract for work outside of their classification even if they are going to subcontract that work to another licensee who does hold the classification. The only classification that may do that is the B – General Building contractor.

SELF-DEALING TRANSACTION DISCLOSURE: Contractor agrees that when operating as a corporation (a for-profit or non-profit corporation), or if during the term of the agreement the Contractor changes its status to operate as a corporation, members of the Contractor's Board of Directors shall disclose any self-dealing transactions that they are a party to while Contractor is providing goods or performing services under the agreement with the County. A self-dealing transaction shall mean a transaction to which the Contractor is a party and in which one or more of its directors has a material financial interest. Members of the Board of Directors shall disclose any self-dealing transactions that they are a party to by completing and signing a Fresno County Self-Dealing Transaction Disclosure Form and submitting it to the County prior to commencing with the self-dealing transaction or immediately thereafter.

LOCAL VENDOR PREFERENCE: The Local Vendor Preference **does not** apply to this Request for Proposal.

CONFLICT OF INTEREST: The County shall not contract with, and shall reject any bid or proposal submitted by the persons or entities specified below, unless the Board of Supervisors finds that special circumstances exist which justify the approval of such contract:

1. Employees of the County or public agencies for which the Board of Supervisors is the governing body.
2. Profit-making firms or businesses in which employees described in Subsection (1) serve as officers, principals, partners or major shareholders.
3. Persons who, within the immediately preceding twelve (12) months, came within the provisions of Subsection (1), and who were employees in positions of substantial responsibility in the area of service to be performed by the contract, or participated in any way in developing the contract or its service specifications.
4. Profit-making firms or businesses in which the former employees described in Subsection (3) serve as officers, principals, partners or major shareholders.
5. No County employee, whose position in the County enables him to influence the selection of a contractor for this RFP, or any competing RFP, and no spouse or economic dependent of such employee, shall be employees in any capacity by a bidder, or have any other direct or indirect financial interest in the selection of a contractor.
6. In addition, no County employee will be employed by the selected vendor to fulfill the vendor's contractual obligations to the County.

DISCLOSURE: The bidder is required to disclose if, within the three-year period preceding the proposal, their owners, officers, corporate managers and partners have been convicted of, or had a civil judgment rendered against them for:

- fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction;
- violation of a federal or state antitrust statute;
- embezzlement, theft, forgery, bribery, falsification, or destruction of records; or
- false statements or receipt of stolen property

Within a three-year period preceding their proposal, they have had a public transaction (federal, state, or local) terminated for cause or default.

ORDINANCE 3.08.130 – POST-SEPARATION EMPLOYMENT PROHIBITED: No officer or employee of the County who separates from County service shall for a period of one year after separation enter into any employment, contract, or other compensation arrangement with any County consultant, vendor, or other County provider of goods, materials, or services, where the officer or employee participated in any part of the decision making process that led to the County relationship with the consultant, vendor or other County provider of goods, materials or services.

Pursuant to Government Code section 25132(a), a violation of the ordinance may be enjoined by an injunction in a civil lawsuit, or prosecuted as a criminal misdemeanor.

TIE BIDS: In the event of a tie score between two or more proposals at the completion of the evaluation process, the evaluation team will break the tie by re-evaluating the proposals and coming to a consensus on which proposal to award. Additional information or interviews may be requested from bidders with the tied proposals.

DATA SECURITY: Individuals and/or agencies that enter into a contractual relationship with the County for the purpose of providing services must employ adequate controls and data security measures, both internally and externally to ensure and protect the confidential information and/or data provided to contractor by the County, preventing the potential loss, misappropriation or inadvertent access, viewing, use or disclosure of County data including sensitive or personal client information; abuse of County resources; and/or disruption to County operations.

Individuals and/or agencies may not connect to or use County networks/systems via personally owned mobile, wireless or handheld devices unless authorized by County for telecommuting purposes and provide a secure connection; up to date virus protection and mobile devices must have the remote wipe feature enabled. Computers or computer peripherals including mobile storage devices may not be used (County or Contractor device) or brought in for use into the County's system(s) without prior authorization from County's Chief Information Officer and/or designee(s).

No storage of County's private, confidential or sensitive data on any hard-disk drive, portable storage device or remote storage installation unless encrypted according to advance encryption standards (AES of 128 bit or higher).

The County will immediately be notified of any violations, breaches or potential breaches of security related to County's confidential information, data and/or data processing equipment which stores or processes County data, internally or externally.

County shall provide oversight to Contractor's response to all incidents arising from a possible breach of security related to County's confidential client information. Contractor will be responsible to issue any notification to affected individuals as required by law or as deemed necessary by County in its sole discretion. Contractor will be responsible for all costs incurred as a result of providing the required notification.

AUDITS & RETENTION: The Contractor shall maintain in good and legible condition all books, documents, papers, data files and other records related to its performance under this contract. Such records shall be complete and available to Fresno County, the State of California, the federal government or their duly authorized representatives for the purpose of audit, examination, or copying during the term of the contract and for a period of at least three (3) years following the County's final payment under the contract or until conclusion of any pending matter (e.g., litigation or audit), whichever is later. Such records must be retained in the manner described above until all pending matters are closed.

PAYMENT: County will make partial payments for all purchases made under the contract and accumulated during the month. Terms of payment will be net forty-five (45) days.

DISPUTE RESOLUTION: The ensuing contract shall be governed by the laws of the State of California.

Any claim which cannot be amicably settled without court action will be litigated in the U. S. District Court for the Eastern District of California in Fresno, CA or in a state court for Fresno County.

ASSIGNMENTS: The ensuing proposed contract will provide that the vendor may not assign any payment or portions of payments without prior written consent of the County of Fresno.

ASSURANCES: Any contract awarded under this RFP must be carried out in full compliance with The Civil Rights Act of 1964, The Americans With Disabilities Act of 1990, their subsequent amendments, and any and all other laws protecting the rights of individuals and agencies. The County of Fresno has a zero tolerance for discrimination, implied or expressed, and wants to ensure that policy continues under this RFP. The contractor must also guarantee that services, or workmanship, provided will be performed in compliance with all applicable local, state, or federal laws and regulations pertinent to the types of services, or project, of the nature required under this RFP. In addition, the contractor may be required to provide evidence substantiating that their employees have the necessary skills and training to perform the required services or work.

LICENSES AND CERTIFICATIONS: Any license(s) and/or certification(s) required in this RFP must be obtained by the bidder prior to submitting a proposal and must be active and in good standing. Proposals submitted without the proper license(s) and/or certification(s) will be deemed non-responsive.

PUBLIC CONTRACT CODE SECTION 7028.15: Where the State of California requires a Contractor's license; it is a misdemeanor for any person to submit a bid unless specifically exempted.

INSURANCE REQUIREMENTS

Without limiting the County's right to obtain indemnification from contractor or any third parties, contractor, at its sole expense, shall maintain in full force and effect, the following insurance policies or a program of self-insurance, including but not limited to, an insurance pooling arrangement or Joint Powers Agreement (JPA) throughout the term of the Agreement:

A. Commercial General Liability: Commercial General Liability Insurance with limits of not less than Two Million Dollars ($2,000,000.00) per occurrence and an annual aggregate of Four Million Dollars ($4,000,000.00). This policy shall be issued on a per occurrence basis. County may require specific coverage including completed operations, product liability, contractual liability, Explosion-Collapse-Underground, fire legal liability or any other liability insurance deemed necessary because of the nature of the contract.

B. Automobile Liability: Comprehensive Automobile Liability Insurance with limits of not less than One Million Dollars ($1,000,000.00) per accident for bodily injury and for property damages. Coverage should include any auto used in connection with this Agreement.

C. Professional Liability: If Contractor employs licensed professional staff, (e.g., Ph.D., R.N., L.C.S.W., M.F.C.C.) in providing services, Professional Liability Insurance with limits of not less than One Million Dollars ($1,000,000.00) per occurrence, Three Million Dollars ($3,000,000.00) annual aggregate.

   This coverage shall be issued on a per claim basis. Contractor agrees that it shall maintain, at its sole expense, in full force and effect for a period of three years following the termination of this Agreement, one or more policies of professional liability insurance with limits of coverage as specified herein.

D. Worker's Compensation: A policy of Worker's Compensation insurance as may be required by the California Labor Code.

Additional Requirements Relating to Insurance:

Contractor shall obtain endorsements to the Commercial General Liability insurance naming the County of Fresno, its officers, agents, and employees, individually and collectively, as additional insured, but only insofar as the operations under this Agreement are concerned. Such coverage for additional insured shall apply as primary insurance and any other insurance, or self-insurance, maintained by County, its officers, agents and employees shall be excess only and not contributing with insurance provided under Contractor's policies herein. This insurance shall not be cancelled or changed without a minimum of thirty (30) days advance written notice given to County.

Contractor hereby waives its right to recover from County, its officers, agents, and employees any amounts paid by the policy of worker's compensation insurance required by this Agreement. Contractor is solely responsible to obtain any endorsement to such policy that may be necessary to accomplish such waiver of subrogation, but Contractor's waiver of subrogation under this paragraph is effective whether or not Contractor obtains such an endorsement.

Within thirty (30) days from the date Contractor executes this Agreement, Contractor shall provide certificates of insurance and endorsement as stated above for all of the foregoing policies, as required herein, to the **County of Fresno, Attn: Mike Griffey, 2220 Tulare Street, 6th Floor, Fresno, CA 93721**, stating that such insurance coverage have been obtained and are in full force; that the County of Fresno, its officers, agents and employees will not be responsible for any premiums on the policies; that such Commercial General Liability insurance names the County of Fresno, its officers, agents and employees, individually and collectively, as additional insured, but only insofar as the operations under this Agreement are concerned; that such coverage for additional insured shall apply as primary insurance and any other insurance, or self-insurance, maintained by County, its officers, agents and employees, shall be excess only and not contributing with insurance provided under Contractor's policies herein; and that this insurance shall not be cancelled or changed without a minimum of thirty (30) days advance, written notice given to County.

In the event Contractor fails to keep in effect at all times insurance coverage as herein provided, the County may, in addition to other remedies it may have, suspend or terminate this Agreement upon the occurrence of such event.

All policies shall be with admitted insurers licensed to do business in the State of California. Insurance purchased shall be purchased from companies possessing a current A.M. Best, Inc. rating of A FSC VII or better.

BID INSTRUCTIONS

- All prices and notations must be typed or written in ink.
- Unless otherwise noted, prices shall remain firm for 180 days after the closing date of the bid.
- Proposals must be electronically submitted on the forms provided in this RFP with all pages numbered.
- Additional material may be submitted with the proposal as attachments. Any additional descriptive material that is used in support of any information in your proposal must be referenced by the appropriate paragraph(s) and page number(s).
- Bidders must electronically submit their proposal in .pdf format, no later than the proposal closing date and time as stated on the front of this document, to the Bid Page on Public Purchase. The County will not be responsible for and will not accept late bids due to slow internet connection or incomplete transmissions.
- County of Fresno will not be held liable for any costs incurred by vendors in responding to this RFP.
- Bidders are instructed not to submit confidential, proprietary and related information within the request for proposal. If you are submitting trade secrets, it must be electronically submitted in a separate PDF file clearly named "TRADE SECRETS" and marked as Confidential, see Trade Secret Acknowledgement section.
- If a bidder finds any discrepancies or has any questions, submit all inquiries to the Bid Page on Public Purchase or contact **Heather Stevens** at (559) 600-7115**.** Any change in the RFP will be made only by written addendum issued by the County. The County will not be responsible for any other explanations or interpretations.
- Failure to respond to all questions or to not supply the requested information could result in rejection of your proposal. Merely offering to meet the specifications is insufficient and will not be accepted. Each bidder shall submit a complete proposal with all information requested.
- Proposals received after the closing date and time will NOT be considered.
- Proposals will be evaluated by an evaluation team led by County Purchasing and may consist of County of Fresno department staff, community representatives from advisory boards, and other members as appropriate. If a proposal does not respond adequately to the RFP or the bidder is deemed unsuitable or incapable of delivering services, the proposal may be eliminated from consideration. Upon review and evaluation, the evaluation team will make the final recommendation to the County department.
- Appeals must be submitted in writing within seven (7) working days after notification of proposed recommendations for award. A "Notice of Award" is not an indication of County's acceptance of an offer made in response to this RFP. Appeals shall be submitted to County of Fresno Purchasing, 333 W. Pontiac Way, Clovis, CA 93612 and in Word format to gcornuelle@FresnoCountyCA.gov. Appeals should address only areas regarding RFP contradictions, procurement errors, proposal rating discrepancies, legality of procurement context, conflict of interest, and inappropriate or unfair competitive procurement grievance regarding the RFP process.

  Purchasing will provide a written response to the complainant within seven (7) working days unless the complainant is notified more time is required. If the appealing bidder is not satisfied with the decision of Purchasing, bidder shall have the right to appeal to the County Administrative Office within seven (7) working days after Purchasing's notification; if the appealing bidder is not satisfied with CAO's decision, the final appeal is with the Board of Supervisors. Please contact Purchasing if the appeal will be going to the Board of Supervisors.

- All communication regarding this RFP shall be directed to an authorized representative of County Purchasing. The specific Analyst managing this RFP is identified on the cover page, along with his or her contact information, and he or she should be the primary point of contact for discussions or information pertaining to the RFP. Contact with any other County representative, including elected officials, for the purpose of discussing this RFP, its content, or any other issue concerning it, is prohibited unless authorized by Purchasing. Violation of this clause, by the vendor having unauthorized contact (verbally or in writing) with such other County representatives, may constitute grounds for rejection by Purchasing of the vendor's quotation.

  The above stated restriction on vendor contact with County representatives shall apply until the County has awarded a purchase order or contract to a vendor or vendors, except as follows. First, in the event that a vendor initiates a formal appeal against the RFP, such vendor may contact the Purchasing Manager who manages that appeal as outlined in the County's established appeal procedures. All such contact must be in accordance with the sequence set forth under the appeal procedures. Second, in the event a public hearing is scheduled before the Board of Supervisors to hear testimony prior to its approval of a purchase order or contract, any vendor may address the Board at scheduled Board Meeting.

SCOPE OF WORK

The County of Fresno on behalf of the Department of Public Works and Planning is requesting proposals from qualified vendors to provide the following:

The COUNTY has a wealth of planning material available, detailing regional topography and resident composition across geographic areas, as well as implemented plans, programs, facilities, and potential additional opportunities for waste stream diversion and processing. The COUNTY wishes the CONSULTANT to utilize this data, and information to review plans, programs and processes in order to address immediate challenges, as well as to formulate revised plans for the next 5, 10, 15, and 20 years to coordinate solid waste management activities that address countywide needs. Special emphasis will be made in the planning of programs and practices that assist the County in meeting compliance with California Senate Bill 1383 (SB 1383), the Short Lived Climate Pollutants (SLCP) legislation focusing on organics diversion programs statewide.

The CONSULTANT will present best practice, evidence-based options for the expansion of solid waste management plans related to materials collected, processed, recycled, diverted and landfilled, and present achievable diversion and disposal model options successfully executed within other jurisdictions. The CONSULTANT will also address any outstanding gaps related to COUNTY ordinances and regulations, and present solutions/proposals to address future problems as they relate to the regional solid waste planning.

Contact Person

The Consultant's principal contacts for the project after execution of the contract will be the Resources Division Manager and Principal Staff Analyst for the Resources Division Solid Waste Planning section, and/or other designated solid waste planning staff, who will coordinate activities performed by the Consultant.

Scope of Work

The CONSULTANT will perform activities prepare comprehensive short-, mid- and long-term solid waste planning documents (for the 5, 10, 15, and 20 years planning periods) that provide a Masterplan for implementable solid waste programs, both local and regional in scope, through the following review and assessment:

Task 1 - Assessment of Current and Past Solid Waste Planning Documents

The CONSULTANT shall review, assess and provide input to augment/improve the following plans, programs and documentation in developing new Masterplan; this information needs to be appropriate for use in CalRecycle Five-Year Planning documentation:

a. Jurisdictional programs
    i. Source Reduction Recycling Elements (SRRE)
    ii. Household Hazardous Waste Element (HHWE)
    iii. Non-Disposal Facility Element (NDFE)
b. Regional programs
    i. Siting Element
    ii. Summary Plan
c. Combined planning documents
    i. Joint Powers Agreements (JPA)
        1. JPAs with Cities
        2. JPAs with Commissions and Committees

ii. Memorandums of Understanding (MOU)

1. MOUs with Cities
2. MOUs with Commissions and Committees

CONSULTANT shall place special emphasis on organics diversion as it relates to SB 1383 legislation. The CONSULTANT shall prepare a report that provides a summary of the review and assessment and shall provide revised planning document drafts for COUNTY review and approval.

Task 2 - Exclusive Service Area Program (ESAP) Administration Support and Assessment

Exclusive Service Area Program (ESAP) Agreements for the unincorporated areas of COUNTY were executed with multiple solid waste hauling companies in 2006 to provide for the collection of trash, recycling, and green waste and amended and successor agreements were adopted in 2017. The CONSULTANT shall assist the COUNTY with the following:

The CONSULTANT will assist with the review and assessment of the ESAP Agreements to determine deficiencies and provide recommendations for amendments that strengthen the administration and implementation of the program.

a. The CONSULTANT will provide strategies for meeting compliance with California Assembly Bills 341 (AB 341, Mandatory Commercial Recycling) and 1826 (AB 1826, Mandatory Organics Recycling), and propose program implementation.

b. The CONSULTANT will provide strategies for meeting compliance with California Senate Bill 1383 (Short Lived Climate Pollutants) including recommendations for program design, implementation, and enforcement.

c. The CONSULTANT will provide ongoing support to staff on ESAP related issues as appropriate, including attendance and facilitation of meetings.

d. The CONSULTANT will assist staff with evaluating the current ESAP Program, and planning for the future solid waste collection program to be bid out and implemented in 2028. Activities will include territories, scope of services, logistical requirements (containers, equipment, etc.), reporting requirements, rate structures, financial aspects (service fees paid to County, etc.), and various other elements of the program.

The CONSULTANT will provide a report detailing the work conducted and assessment findings within this task area as needed or requested by COUNTY.

Task 3 - Streamline of Administration and Reporting Processes

This task will address the streamlining of administration and reporting processes for 1) all hauler agreements including the Exclusive Area Program (ESAP) and Non-Exclusive Waste Hauler Agreement (NEWHA), 2) permitted facilities and 3) jurisdictions. CONSULTANT will assist the COUNTY in developing both efficient and effective administrative and reporting processes including:

Provide administrative support in the assessment and revision of existing “proprietary” reporting processes within the County that conform to the requirements of the ESAP Agreements.

a. Assess and recommend revisions for capturing SB 1383 related data for report to CalRecycle.

b. Assist staff with the assessment of potential I.T.-based solutions (e.g. developed software platforms, etc.) that enhance the County’s disposal and diversion reporting program, establish efficiencies for staff that track tonnage and hauler service fee and surcharge remittances, and simplify the aggregation of data for reporting to CalRecycle annually.

Task 4 - Regulatory Requirements and Related County Ordinances

a. The CONSULTANT will assess and provide recommendations for the revision of various COUNTY ordinances related to solid waste, recycling, and organics programs that address all local, state and federal regulatory requirements. These include:

    1. Non-Exclusive Waste Hauling ordinance revisions
    2. C&D waste management ordinance and related C&D facility regulations (certification, C&D waste flow control, etc.)
    3. Organics diversion ordinances and regulations
    4. Other areas as relevant and appropriate

Task 5 - Education and Outreach Programming

The CONSULTANT shall:

a. Evaluate current education/outreach strategies that serve the entire County of Fresno including print and digital materials.

b. Provide recommend dations on enhancing the County's opportunities to educate residents and businesses regarding County diversion and disposal programs.

c. Assist staff with developing outreach and education strategies and materials aimed at SB 1383 compliance

d. Assist staff with developing outreach and education strategies and materials aimed at significantly reducing the occurrence of recycling and organics contamination

SCOPE OF WORK PROPOSAL REQUIREMENTS

Pursuant to instructions included in this RFP, Proposal Content Requirements, a bidder's proposal shall include a response to the following:

Capability & Qualifications

a) Explain your company's capacity to take in large amounts of information and program descriptions and extract and utilize the most necessary information.

b) Demonstrate your experience working with government agencies and departments to plan and implement solid waste programs by evidence of at least three prior clients.

c) Provide examples of your ability to create assessments that may include but are not limited to executive summary reports, research and survey findings, and comparative analysis.

d) Describe your aptitude to produce a practical comprehensive integrated waste management plan based on research and anticipated future regulations.

e) Describe your experience assessing and recommending new and revised jurisdictional ordinances.

f) Describe your knowledge or awareness of the issues associated with providing the services proposed and knowledge of the laws, regulations, statutes and effective principles required to address the tasks?

g) Does the CONSULTANT and their proposed Project Manager and Main Staff have at least five (5) years of experience in directly relatable services to the "Scope of Work" for government entities and can show at least three (3) project examples of such?

h) Describe your experience in the creation of joint power agreements, memorandums of understanding, and contracts within the solid waste industry.

Education/Outreach Development

a) Describe your experience evaluating education/outreach materials and strategies specific to solid waste collection and material diversion programs, including but not limited to organics.

b) Provide a sample portfolio of previous education/outreach materials.

c) Describe your experience assessing the needs of a community in regards to finding the best messaging and strongest communication plan.

Reporting Requirements

a) Describe your experience assisting jurisdictions comply with solid waste reporting requirements.

b) Describe your experience developing and supporting reporting forms and processes.

c) Describe you experience in researching, assessing and recommending reporting software programs.

Solid Waste Diversion

a) Demonstrate how the CONSULTANT will address the requirements of SB 1383 and provide a potential organics diversion program model that is effective in addressing current and anticipated organics diversion requirements.

b) Demonstrate your experience in the implementation of diversion programs in jurisdictions that do and do not currently have jurisdiction wide diversion programs in place.

Management & Administration

a) Demonstrate your ability to annually develop and submit a project management timeline specifying deliverables, responsible parties, and completion dates and ability to update the timeline quarterly.

b) Describe your experience at delivering monthly status reports, on all project tasks in a timely manner and within the customer's requirements.

c) Describe your experience with providing a monthly invoice no later than 30 days after the end of the previous month, including all approved project expenses and related backup documentation (such as work

orders, invoices and receipts).

d) The CONSULTANT shall provide an organizational plan and management structure for overseeing the proposed services.

e) The CONSULTANT shall provide its organizational philosophy and goals.

COST PROPOSAL

Please complete all information on this form for the full term plus two (2) possible one (1) year extensions.

Task #	Description	Staff Name	Rate ($/hr)	Hours	Totals
Task 1	Assessment of Current and Past Solid Waste Plans	1._____	_____	_____	_____
		2._____	_____	_____	_____
		3._____	_____	_____	_____
	Totals			_____	_____
Task 2	Exclusive Service Area Program (ESAP) Assessment/Support	1._____	_____	_____	_____
		2._____	_____	_____	_____
		3._____	_____	_____	_____
	Totals			_____	_____
Task 3	Streamline of Administration and Reporting Processes	1._____	_____	_____	_____
		2._____	_____	_____	_____
		3._____	_____	_____	_____
	Totals			_____	_____
Task 4	Regulatory Requirements and Related County Ordinances	1._____	_____	_____	_____
		2._____	_____	_____	_____
		3._____	_____	_____	_____
	Totals			_____	_____
Task 5	Education and Outreach Programming	1._____	_____	_____	_____
		2._____	_____	_____	_____
		3._____	_____	_____	_____
	Totals			_____	_____
	GRAND TOTAL			_____	_____

AWARD CRITERIA

All proposals will be evaluated using the same criteria. While cost is important, other factors are also significant, and the County may not select the lowest cost proposal. The objective is to choose the proposal that offers the highest quality services and will best achieve the County's goals and objectives within a reasonable budget. Evaluations will be based on the criteria listed below:

COST

A. As submitted under the "COST PROPOSAL" section.

MANAGEMENT PLAN

A. Does the bid demonstrate the CONSULTANT's ability to effectively manage a large consulting project, including developing project management plans and timelines, consistent project status reporting, timely and thorough billing practices, and demonstration of an organizational philosophy, goals, and management structure suitable for a large consulting project of the nature and scope presented herein.

CAPABILITY AND QUALIFICATIONS

A. Does the bid demonstrate the CONSULTANT's capabilities and qualifications adequate for a consulting project of the nature and scope presented herein, including developing clear strategies and action plans, experience working with government agencies to plan and implement solid waste programs, and firm knowledge and awareness of laws, regulations, statutes, governing solid waste programs.

EDUCATION/OUTREACH DEVELOPMENT

A. Does the bid demonstrate the CONSULTANT's experience with Education/Outreach development, including evaluating existing programs and providing recommendations for improvement.

REPORTING REQUIREMENTS

A. Does the bid demonstrate the CONSULTANT's experience with solid waste reporting, including compliance with State reporting requirements, client support in developing/maintaining reporting forms and processes, and assessing and recommending software/technology based reporting solutions.

SOLID WASTE DIVERSION

A. Does the bid demonstrate the CONSULTANT's experience addressing the implementation of organics diversion programs, including developing organics programs that comply with State regulations, specifically SB1383, and developing and implementing diversion programs from scratch in jurisdictions that do not currently have comprehensive diversion programs in place.

PROPOSAL CONTENT REQUIREMENTS

It is required that the vendor submit his/her proposal in accordance with the format and instructions provided under this section.

I. RFP PAGE 1 AND ADDENDUM(S) PAGE 1 (IF APPLICABLE) completed and signed by participating individual or agency.

II. COVER LETTER: A one-page cover letter and introduction including the company name and address of the bidder and the name, address and telephone number of the person or persons to be used for contact and who will be authorized to make representations for the bidder.

A. Whether the bidder is an individual, partnership or corporation shall also be stated. It will be signed by the individual, partner, or an officer or agent of the corporation authorized to bind the corporation, depending upon the legal nature of the bidder. A corporation submitting a proposal may be required before the contract is finally awarded to furnish a certificate as to its corporate existence, and satisfactory evidence as to the officer or officers authorized to execute the contract on behalf of the corporation.

III. TABLE OF CONTENTS

IV. CONFLICT OF INTEREST STATEMENT: The Contractor may become involved in situations where conflict of interest could occur due to individual or organizational activities that occur within the County. **The Contractor must provide a statement addressing the potential, if any, for conflict of interest and indicate plans, if applicable, to address potential conflict of interest.** This section will be reviewed by County Counsel for compliance with conflict of interest as part of the review process. The Contractor shall comply with all federal, state and local conflict of interest laws, statutes and regulations.

V. TRADE SECRET:

A. Sign where required.

VI. CERTIFICATION – DISCLOSURE – CRIMINAL HISTORY & CIVIL ACTIONS

VII. REFERENCES

VIII. PARTICIPATION

IX. EXCEPTIONS: This portion of the proposal will note any exceptions to the requirements and conditions taken by the bidder. If exceptions are not noted, the County will assume that the bidder's proposals meet those requirements. The exceptions shall be noted as follows:

A. Exceptions to General Conditions.

B. Exceptions to General Requirements.

C. Exceptions to Specific Terms and Conditions.

D. Exceptions to Scope of Work and/or Scope of Work Proposal Requirements.

E. Exceptions to Proposal Content Requirements.

F. Exceptions to any other part of this RFP.

X. VENDOR COMPANY DATA: This section should include:

A. A narrative which demonstrates the vendor’s basic familiarity or experience with problems associated with this service/project.

B. Descriptions of any similar or related contracts under which the bidder has provided services.

C. Descriptions of the qualifications of the individual(s) providing the services.

D. Any material (including letters of support or endorsement) indicative of the bidder's capability.

E. A brief description of the bidder's current operations, and ability to provide the services.

F. Copies of the audited Financial Statements for the last three (3) years for the agency or program that will be providing the service(s) proposed. If audited statements are not available, compiled or reviewed statements will be accepted with copies of three years of corresponding federal tax returns. This information is to be provided after the RFP closes, if requested. **Do not provide with your proposal.**

G. Describe all contracts that have been terminated before completion within the last five (5) years:

1. Agency contract with
2. Date of original contract
3. Reason for termination
4. Contact person and telephone number for agency

H. Describe all lawsuit(s) or legal action(s) that are currently pending; and any lawsuit(s) or legal action(s) that have been resolved within the last five (5) years:

1. Location filed, name of court and docket number
2. Nature of the lawsuit or legal action

I. Describe any payment problems that you have had with the County within the past three (3) years:

1. Funding source
2. Date(s) and amount(s)
3. Resolution
4. Impact to financial viability of organization.

XI. SCOPE OF WORK:

A. Bidders are to use this section to describe the essence of their proposal.

B. This section should be formatted as follows:

1. A general discussion of your understanding of the project, the Scope of Work proposed and a summary of the features of your proposal.
2. A detailed description of your proposal as it relates to each item listed under the "Scope of Work Proposal Requirements" section of this RFP. Bidder's response should be stated in the same order as are the "Scope of Work Proposal Requirements" items. Each description should begin with a restatement of the "Scope of Work Proposal Requirements" item that it is addressing. Bidders must explain their approach and method of satisfying each of the listed items.

C. When reports or other documentation are to be a part of the proposal a sample of each must be submitted. Reports should be referenced in this section and submitted in a separate section entitled "REPORTS."

D. A complete description of any alternative solutions or approaches to accomplishing the desired results.

XII. COST PROPOSAL: Quotations may be prepared in any manner to best demonstrate the worthiness of your proposal. Include details and rates/fees for all services, materials, equipment, etc. to be provided or optional under the proposal.

XIII. CHECK LIST

TRADE SECRET ACKNOWLEDGEMENT

Each proposal submitted is public record under the California Public Records Act (Cal. Gov. Code, secs. 6250 and following) and is therefore open to inspection by the public as required by Section 6253 of the California Government Code. This section generally states that "every person has a right to inspect any public record". The County will not exclude any proposal or portion of a proposal from treatment as a public record except information that it is properly submitted as a “trade secret” (defined below), and determined by the County to be a “trade secret” (if not otherwise subject to disclosure, as stated below). Information submitted as “proprietary”, “confidential” or under any other terms that might state or suggest restricted public access will not be excluded from treatment as public record.

"Trade secrets" as defined by Section 6254.7 of the California Government Code are not treated as a public record under that section. This section defines trade secrets as:

> *"...Trade secrets," as used in this section, may include, but are not limited to, any formula, plan, pattern, process, tool, mechanism, compound, procedure, production data or compilation of information that is not patented, which is known only to certain individuals within a commercial concern who are using it to fabricate, produce, or compound an article of trade or a service having commercial value and which gives its user an opportunity to obtain a business advantage over competitors who do not know or use it."*

Such information must be submitted in a separate PDF file named "Trade Secret" and marked as “Confidential” in the Public Purchase system. Bidders must include a clear and concise statement that sets out the reasons for confidentiality in accordance with the foregoing definition of “trade secret.” Examples of information not considered trade secrets are pricing, cover letter, promotional materials, references, and the like.

Information submitted by a bidder as "trade secret" will be reviewed by County of Fresno's Purchasing Division, with the assistance of the County’s legal counsel, to determine conformance or non-conformance to the foregoing definition.

Information that is properly identified as “trade secret” and which the County determines to conform to the definition will not become public record (if not otherwise subject to disclosure, as stated below). The County will safeguard this information in an appropriate manner, provided however, in the event of a request, demand, or legal action by any person or entity seeking access to the “trade secret” information, the County will inform the bidder of such request, demand, or legal action, and the bidder shall defend, indemnify, and hold harmless the County, including its officers and employees, against any and all claims, liabilities, damages, or costs or expenses, including attorney’s fees and costs, relating to such request, demand or legal action, seeking access to the “trade secret” information.

Information submitted by bidder as trade secret and determined by the County not to be in conformance with the foregoing California Government Code definition shall be excluded from the proposal and deleted by the County.

The County shall not in any way be liable or responsible for the disclosure of any proposals or portions thereof, if (1) they are not electronically submitted in a separate PDF that is marked "Trade Secret" and marked as Confidential in the Public Purchase system; or (2) disclosure thereof is required or allowed under the law or by order of court.

Bidders are advised that the County does not wish to receive trade secrets and that bidders are not to supply trade secrets unless they are absolutely necessary.

I have read and understand, and agree to the above "Trade Secret Acknowledgement."

BIDDER MUST CHECK ONE OF THE FOLLOWING:

Has bidder submitted certain bid information that is a “trade secret,” as defined by Section 6254.7 of the California Government Code, and in compliance with the requirements of this Trade Secrets Acknowledgement?

By marking “**NO**”, bidder does not claim any confidentiality of any bid information submitted to the County.

_____ **YES** _____ **NO**

ACKNOWLEDGED AND AGREED BY BIDDER:

Signature Date

Print Name Title

DISCLOSURE – CRIMINAL HISTORY & CIVIL ACTIONS

In their proposal, the bidder is required to disclose if any of the following conditions apply to them, their owners, officers, corporate managers and partners (hereinafter collectively referred to as "Bidder"):

1. Within the three-year period preceding the proposal, they have been convicted of, or had a civil judgment rendered against them for:
    a. fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction;
    b. violation of a federal or state antitrust statute;
    c. embezzlement, theft, forgery, bribery, falsification, or destruction of records; or
    d. false statements or receipt of stolen property
2. Within a three-year period preceding their proposal, they have had a public transaction (federal, state, or local) terminated for cause or default.

Disclosure of the above information will not automatically eliminate a Bidder from consideration. The information will be considered as part of the determination of whether to award the contract and any additional information or explanation that a Bidder elects to submit with the disclosed information will be considered. If it is later determined that the Bidder failed to disclose required information, any contract awarded to such Bidder may be immediately voided and terminated for material failure to comply with the terms and conditions of the award.

Any Bidder who is awarded a contract must sign an appropriate Certification Regarding Debarment, Suspension, and Other Responsibility Matters. Additionally, the Bidder awarded the contract must immediately advise the County in writing if, during the term of the agreement: (1) Bidder becomes suspended, debarred, excluded or ineligible for participation in federal or state funded programs or from receiving federal funds as listed in the excluded parties list system (http://www.epls.gov); or (2) any of the above listed conditions become applicable to Bidder. The Bidder will indemnify, defend and hold the County harmless for any loss or damage resulting from a conviction, debarment, exclusion, ineligibility or other matter listed in the signed Certification Regarding Debarment, Suspension, and Other Responsibility Matters.

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS - PRIMARY COVERED TRANSACTIONS

INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.
4. The prospective primary participant shall provide immediate written notice to the department or agency to which this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms covered transaction, debarred, suspended, ineligible, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
6. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

CERTIFICATION

(1) The prospective primary participant certifies to the best of its knowledge and belief, that it, its owners, officers, corporate managers and partners:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Signature: _____ Date: _____

_____ _____
(Printed Name & Title) (Name of Agency or Company)

REFERENCE LIST

VENDOR MUST COMPLETE AND RETURN WITH REQUEST FOR PROPOSAL

Firm: ______________________________

Provide a list of at least five (5) customers for whom you have recently provided similar services. If you have held a contract for similar services with the County of Fresno within the past seven (7) years, list the County as one of your customers. Please list the person most familiar with your contract. Be sure to include all requested information.

Reference Name: ____________________ Contact: ____________________
Address: ______________________________
City: ____________________ State: ________ Zip: ____________
Phone No.: (______) ____________________ Project Date: ____________________
Service Provided: ______________________________

Reference Name: ____________________ Contact: ____________________
Address: ______________________________
City: ____________________ State: ________ Zip: ____________
Phone No.: (______) ____________________ Project Date: ____________________
Service Provided: ______________________________

Reference Name: ____________________ Contact: ____________________
Address: ______________________________
City: ____________________ State: ________ Zip: ____________
Phone No.: (______) ____________________ Project Date: ____________________
Service Provided: ______________________________

Reference Name: ____________________ Contact: ____________________
Address: ______________________________
City: ____________________ State: ________ Zip: ____________
Phone No.: (______) ____________________ Project Date: ____________________
Service Provided: ______________________________

Reference Name: ____________________ Contact: ____________________
Address: ______________________________
City: ____________________ State: ________ Zip: ____________
Phone No.: (______) ____________________ Project Date: ____________________
Service Provided: ______________________________

Failure to provide a list of at least five (5) customers may be cause for rejection of this RFP.

PARTICIPATION

The County of Fresno is a member of the California Association of Public Procurement Officials (CAPPO) Central Valley Chapter. This group consists of Fresno, Kern, Kings, and Tulare Counties and all governmental, tax supported agencies within these counties.

Whenever possible, these and other tax supported agencies co-op (piggyback) on contracts put in place by one of the other agencies.

Any agency choosing to avail itself of this opportunity, will make purchases in their own name, make payment directly to the contractor, be liable to the contractor and vice versa, per the terms of the original contract, all the while holding the County of Fresno harmless. If awarded this contract, please indicate whether you would extend the same terms and conditions to all tax supported agencies within this group as you are proposing to extend to Fresno County.

*** Note: This form/information is not rated or ranked for evaluation purposes.**

☐ Yes, we will extend contract terms and conditions to all qualified agencies within the California Association of Public Procurement Officials (CAPPO) Central Valley Chapter and other tax supported agencies.

☐ No, we will not extend contract terms to any agency other than the County of Fresno.

_____
(Authorized Signature)

_____
Title

CHECK LIST

This Checklist is provided to assist vendors in the preparation of their RFP response. Included are important requirements the bidder is responsible to submit with the RFP package in order to make the RFP compliant.

Check off each of the following (if applicable):

1. _____ Signed cover page of Request for Proposal (RFP).
2. _____ Check http://www.FresnoCountyCA.gov/departments/internal-services/purchasing/bid-opportunities for any addenda.
3. _____ Signed cover page of each Addendum.
4. _____ Provide a Conflict of Interest Statement.
5. _____ Signed *Trade Secret Form* as provided with this RFP (Trade Secret Information, if provided, must be electronically submitted in a separate PDF file and marked as Confidential).
6. _____ Signed *Criminal History Disclosure Form* as provided with this RFP.
7. _____ Signed *Participation Form* as provided with this RFP.
8. _____ The completed *Reference List* as provided with this RFP.
9. _____ Indicate all of bidder exceptions to the County's requirements, conditions and specifications as stated within this RFP.
10. _____ Bidder's proposal, in PDF format, electronically submitted to the Bid Page on Public Purchase.

Return Checklist with your RFP response

COUNTY OF FRESNO

ADDENDUM NUMBER: ONE (1)

RFP NUMBER: 20-018

SOLID WASTE PLANNING CONSULTING SERVICES

Issue Date: October 15, 2019

Closing Date: November 6, 2019 at 2:00 PM

All Questions and Proposals must be electronically submitted to the Bid Page on Public Purchase.

For assistance, contact Heather Stevens at (559) 600-7110.

NOTE THE FOLLOWING ADDITIONS, DELETIONS AND/OR CHANGES TO THE REQUIREMENTS OF REQUEST FOR PROPOSAL NUMBER: 20-018 AND INCLUDE THEM IN YOUR RESPONSE. PLEASE SIGN AND RETURN THIS ADDENDUM WITH YOUR PROPOSAL.

- **The bidders' conference previously scheduled for October 22, 2019 at 3:00 PM has been cancelled.**
- **Potential bidders should post any questions regarding this RFP to the bid page on Public Purchase. All questions will be answered in an additional Addendum after the question cut off date of October 24, 2019 at 10:00 AM.**

ACKNOWLEDGMENT OF ADDENDUM NUMBER ONE (1) TO RFP 20-018

COMPANY NAME: _____
(PRINT)

SIGNATURE: _____

NAME & TITLE: _____
(PRINT)

Purchasing Use: HS:st

ORG/Requisition: 9015 / 9012000045

COUNTY OF FRESNO

ADDENDUM NUMBER: TWO (2)

RFP NUMBER: 20-018

SOLID WASTE PLANNING CONSULTANT SERVICES

Issue Date: October 25, 2019

Closing Date: November 6, 2019 at 2:00 PM

All Questions and Proposals must be electronically submitted to the Bid Page on Public Purchase.

For assistance, contact Heather Stevens at (559) 600-7110.

NOTE THE ATTACHED ADDITIONS, DELETIONS AND/OR CHANGES TO THE REQUIREMENTS OF REQUEST FOR PROPOSAL NUMBER: 20-018 AND INCLUDE THEM IN YOUR RESPONSE. PLEASE SIGN AND RETURN THIS ADDENDUM WITH YOUR PROPOSAL.

- **Please see questions & answers on the next page.**

ACKNOWLEDGMENT OF ADDENDUM NUMBER TWO (2) TO RFP 20-018

COMPANY NAME: _____
(PRINT)

SIGNATURE: _____

NAME & TITLE: _____
(PRINT)

Purchasing Use: HS:hs

ORG/Requisition: 9015 / 9012000045

QUESTIONS & ANSWERS

Q1. The RFP didn't mention a budget, is there a budget set for this project or an estimated budget?

A1. The County intends to budget a total of $200,000 for solid waste planning consulting services over the full length of the agreement between County and the successful bidder. This would include the initial three-year term and the two potential one-year extensions, for a total of five years. Accordingly, the average amount per year would be $40,000. Please note that this is only an average and may be adjusted upward or downward in each County budget cycle depending on needs during the term of the agreement, direction from County and department administration, etc.

Q2. On page 12, it says that the County has planning materials available -- are all planning materials/data available electronically?

A2. These materials are primarily in print form within the solid waste section's document library. However, materials could easily be scanned and provided to the successful bidder via email and/or a file transfer service such as dropbox, etc. depending on file size.

Q3. Does the disclosure section on pg 10 apply to subcontractors as well?

A3. Page 10 does not mention disclosure. Please see page 22 (underline added for emphasis):

> *In their proposal, the bidder is required to disclose if any of the following conditions apply to <u>them, their owners, officers, corporate managers and partners</u> (hereinafter collectively referred to as "Bidder"):*

Q4. on page 10, bullet 3: It says that the proposal must be electronically submitted on the forms provided in the RFP. Can we paste our forms into our formatted proposal? Please provide clarification.

A4. Yes, you can paste your information into the proposal, and/or insert pages where necessary.

Q5. Are we required to use the cost form on page 17 or are we allowed to prepare our own fee estimate as long as it includes all the same information?

A5. Yes, as long as all the information asked for is provided. Please keep in mind that if any of the information is missing, the entire proposal could be marked unresponsive and not evaluated.

I. RFP PAGE 1 AND ADDENDUM(S) PAGE 1

COUNTY OF FRESNO

REQUEST FOR PROPOSAL

NUMBER: 20-018

SOLID WASTE PLANNING CONSULTING SERVICES

Issue Date: October 10, 2019

Closing Date: NOVEMBER 6, 2019 AT Heather Stevens

All Questions and Responses must be electronically submitted on the Bid Page on Public Purchase.

For assistance, contact **Heather Stevens** at Phone (559) 600-7115.

BIDDER TO COMPLETE

Undersigned agrees to furnish the commodity or service stipulated in the attached at the prices and terms stated in this RFP. Bid must be signed and dated by an authorized officer or employee.

Stearns, Conrad and Schmidt, Consulting Engineers, Inc. dba SCS Engineers
COMPANY

Michelle P. Leonard
CONTACT PERSON

438 S. Marengo Ave.
ADDRESS

Pasadenda | CA | 91101
CITY | STATE | ZIP CODE

(626) 322-3823 | mleonard@scsengineers.com
TELEPHONE NUMBER | E-MAIL ADDRESS

AUTHORIZED SIGNATURE

Michelle P. Leonard | Vice President
PRINT NAME | TITLE

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COUNTY OF FRESNO

ADDENDUM NUMBER: ONE (1)

RFP NUMBER: 20-018

SOLID WASTE PLANNING CONSULTING SERVICES

Issue Date: October 15, 2019

Closing Date: November 6, 2019 at 2:00 PM

All Questions and Proposals must be electronically submitted to the Bid Page on Public Purchase.

For assistance, contact Heather Stevens at (559) 600-7110.

NOTE THE FOLLOWING ADDITIONS, DELETIONS AND/OR CHANGES TO THE REQUIREMENTS OF REQUEST FOR PROPOSAL NUMBER: 20-018 AND INCLUDE THEM IN YOUR RESPONSE. PLEASE SIGN AND RETURN THIS ADDENDUM WITH YOUR PROPOSAL.

- **The bidders' conference previously scheduled for October 22, 2019 at 3:00 PM has been cancelled.**
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ACKNOWLEDGMENT OF ADDENDUM NUMBER ONE (1) TO RFP 20-018

COMPANY NAME: Stearns, Conrad and Schmidt, Consulting Engineers, Inc. dba SCS Engineers (PRINT)

SIGNATURE: MP Leonard

NAME & TITLE: Michelle P. Leonard, Vice President (PRINT)

Purchasing Use: HS:st

ORG/Requisition: 9015 / 9012000045

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COUNTY OF FRESNO

ADDENDUM NUMBER: TWO (2)

RFP NUMBER: 20-018

SOLID WASTE PLANNING CONSULTANT SERVICES

Issue Date: October 25, 2019

Closing Date: November 6, 2019 at 2:00 PM

All Questions and Proposals must be electronically submitted to the Bid Page on Public Purchase.

For assistance, contact Heather Stevens at (559) 600-7110.

NOTE THE ATTACHED ADDITIONS, DELETIONS AND/OR CHANGES TO THE REQUIREMENTS OF REQUEST FOR PROPOSAL NUMBER: 20-018 AND INCLUDE THEM IN YOUR RESPONSE. PLEASE SIGN AND RETURN THIS ADDENDUM WITH YOUR PROPOSAL.

- **Please see questions & answers on the next page.**

ACKNOWLEDGMENT OF ADDENDUM NUMBER TWO (2) TO RFP 20-018

COMPANY NAME: Stearns, Conrad and Schmidt, Consulting Engineers, Inc. dba SCS Engineers (PRINT)

SIGNATURE: MP Leonard

NAME & TITLE: Michelle P. Leonard, Vice President (PRINT)

Purchasing Use: HS:hs **ORG/Requisition:** 9015 / 9012000045

G:\PUBLIC\RFP\FY 2019-20\20-018 SOLID WASTE PLANNING CONSULTING SERVICES\20-018 ADDENDUM 2.DOC (10/21/2019)

QUESTIONS & ANSWERS

Q1. The RFP didn't mention a budget, is there a budget set for this project or an estimated budget?

A1. The County intends to budget a total of $200,000 for solid waste planning consulting services over the full length of the agreement between County and the successful bidder. This would include the initial three-year term and the two potential one-year extensions, for a total of five years. Accordingly, the average amount per year would be $40,000. Please note that this is only an average and may be adjusted upward or downward in each County budget cycle depending on needs during the term of the agreement, direction from County and department administration, etc.

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Q4. on page 10, bullet 3: It says that the proposal must be electronically submitted on the forms provided in the RFP. Can we paste our forms into our formatted proposal? Please provide clarification.

A4. Yes, you can paste your information into the proposal, and/or insert pages where necessary.

Q5. Are we required to use the cost form on page 17 or are we allowed to prepare our own fee estimate as long as it includes all the same information?

A5. Yes, as long as all the information asked for is provided. Please keep in mind that if any of the information is missing, the entire proposal could be marked unresponsive and not evaluated.

G:\PUBLIC\RFP\FY 2019-20\20-018 SOLID WASTE PLANNING CONSULTING SERVICES\20-018 ADDENDUM 2.DOC

SCS ENGINEERS

COLLABORATE | INNOVATE | COMMUNICATE

Solid Waste Planning

County of Fresno

RFP #20-018 | November 6, 2019

II. COVER LETTER

Ms. Heather Stevens
County of Fresno

November 6, 2019
Proposal No. 010900219

333 W. Pontiac Way
Clovis, CA 93612
559-600-7115

Subject: Proposal for Solid Waste Planning Consulting Services - Number: 20-018

Dear Ms. Stevens:

Our Understanding

Assessing the best plan for collecting and recovering organic waste is a long process with hundreds of variables to consider, which can be further complicated when in a Joint Powers Authority (JPA). We understand Fresno County (County) is seeking support in the development of a solid waste Masterplan. California's Senate Bill (SB) 1383 is on the horizon and will dramatically change the landscape of organics collection and processing for municipalities. Additionally, with China's National Sword putting pressure on the recycling infrastructure nationally and locally, it is even more important now than ever to recycle right, separate organics, initiate effective waste reduction education campaigns, and most importantly -- minimize contamination. SCS Engineers (SCS) is the best firm to prepare a solid waste plan that meets the County's short- (5 years), intermediate- (10 years), and long-range (15 and 20 years) goals, while taking into consideration the economic, social, and environmental issues of various solid waste management policies, programs, and infrastructure options.

The County strives to improve and find innovative ways to meet and exceed their waste diversion goals while managing to safely dispose waste in an efficient and functional way. The County's Masterplan will help Fresno County to: 1) Reduce waste generation; 2) Maximize reuse recycling and diversion of organics from landfill with minimal contamination; 3) Effectively manage hazardous waste for reuse/safe disposal; 4) Support state regulatory requirements while adhering to local policies and ordinances; 5) Provide education and outreach to the community to increase participation and reduce contamination in waste diversion programs; and 6) Efficiently aggregate data collection and record keeping for use in CalRecycle reports.

Team of Experts Means Evidence-Based Solutions

The requested solid waste Masterplan approach requires a project team of multi-faceted, highly skilled experts. We have an entire practice area devoted to materials management and we ensure our clients meet solid waste regulatory compliance. **The team that will serve you on this project includes some of the best Sustainable Materials Management (SMM), data management and marketing experts in California.** To ensure we meet all of your expectations on this key project, we are excited to partner with HFH Consulting, Recyclist, and JP Marketing. HFH Consulting will assist with Exclusive Service Area Program (ESAP) related tasks, Recyclist will provide data management, and JP Marketing, local to Fresno, will perform the marketing outreach to your community.

Our team has proven experience facilitating productive meetings with board members and other stakeholder groups to provide a clear picture about the solid waste system challenges and educating our clients on their options when supporting their long-term strategic plans. Our team's experience in solid waste program design and implementation experience and working with JPAs will improve your Solid Waste Plan because our methodology will identify specific interim goals. These goals will provide flexibility should there be significant local and regional changes during the planning period, and we will develop best practices to service the current and future needs of the region in the most fiscally responsible and efficient manner possible.

Our Approach

Through a collaborative approach, our team can help you design and implement innovative waste prevention programs and policies that convert expert-level understanding of growth projections for Fresno County, solid waste systems, regulatory requirements and community behaviors into measurable results appropriate for use in reports required by CalRecycle.

On behalf of all our team members who will contribute to your project, we are confident we will help you achieve your desired outcomes. If you have any questions concerning any aspect of this proposal, please contact myself or Tracie. Our contact details are provided below.

Sincerely,

Michelle P. Leonard
Vice President
SCS Engineers
626-322-3823
mleonard@scsengineers.com

Tracie Onstad Bills
Senior Project Manager
SCS Engineers
925-426-0279
tbills@scsengineers.com

III. TABLE OF CONTENTS

Table of Contents

Tables

Appendices

IV. CONFLICT OF INTEREST STATEMENT

We do not foresee any potential conflicts of interest and will abide with all federal, state and local conflict of interest laws, statues and regulations.

V. TRADE SECRETS

Proposal No. 20-018 **Page 21**

TRADE SECRET ACKNOWLEDGEMENT

Each proposal submitted is public record under the California Public Records Act (Cal. Gov. Code, secs. 6250 and following) and is therefore open to inspection by the public as required by Section 6253 of the California Government Code. This section generally states that "every person has a right to inspect any public record". The County will not exclude any proposal or portion of a proposal from treatment as a public record except information that it is properly submitted as a "trade secret" (defined below), and determined by the County to be a "trade secret" (if not otherwise subject to disclosure, as stated below). Information submitted as "proprietary", "confidential" or under any other terms that might state or suggest restricted public access will not be excluded from treatment as public record.

"Trade secrets" as defined by Section 6254.7 of the California Government Code are not treated as a public record under that section. This section defines trade secrets as:

> *"...Trade secrets," as used in this section, may include, but are not limited to, any formula, plan, pattern, process, tool, mechanism, compound, procedure, production data or compilation of information that is not patented, which is known only to certain individuals within a commercial concern who are using it to fabricate, produce, or compound an article of trade or a service having commercial value and which gives its user an opportunity to obtain a business advantage over competitors who do not know or use it."*

Such information must be submitted in a separate PDF file named "Trade Secret" and marked as "Confidential" in the Public Purchase system. Bidders must include a clear and concise statement that sets out the reasons for confidentiality in accordance with the foregoing definition of "trade secret." Examples of information not considered trade secrets are pricing, cover letter, promotional materials, references, and the like.

Information submitted by a bidder as "trade secret" will be reviewed by County of Fresno's Purchasing Division, with the assistance of the County's legal counsel, to determine conformance or non-conformance to the foregoing definition.

Information that is properly identified as "trade secret" and which the County determines to conform to the definition will not become public record (if not otherwise subject to disclosure, as stated below). The County will safeguard this information in an appropriate manner, provided however, in the event of a request, demand, or legal action by any person or entity seeking access to the "trade secret" information, the County will inform the bidder of such request, demand, or legal action, and the bidder shall defend, indemnify, and hold harmless the County, including its officers and employees, against any and all claims, liabilities, damages, or costs or expenses, including attorney's fees and costs, relating to such request, demand or legal action, seeking access to the "trade secret" information.

Information submitted by bidder as trade secret and determined by the County not to be in conformance with the foregoing California Government Code definition shall be excluded from the proposal and deleted by the County.

The County shall not in any way be liable or responsible for the disclosure of any proposals or portions thereof, if (1) they are not electronically submitted in a separate PDF that is marked "Trade Secret" and marked as Confidential in the Public Purchase system; or (2) disclosure thereof is required or allowed under the law or by order of court.

Bidders are advised that the County does not wish to receive trade secrets and that bidders are not to supply trade secrets unless they are absolutely necessary.

I have read and understand, and agree to the above "Trade Secret Acknowledgement."

BIDDER MUST CHECK ONE OF THE FOLLOWING:

Has bidder submitted certain bid information that is a "trade secret," as defined by Section 6254.7 of the California Government Code, and in compliance with the requirements of this Trade Secrets Acknowledgement?

By marking "**NO**", bidder does not claim any confidentiality of any bid information submitted to the County.

____ **YES** ✓ **NO**

ACKNOWLEDGED AND AGREED BY BIDDER:

Signature	Date: 11/6/19
Michelle P. Leonard	Vice President
Print Name	Title

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VI. CERTIFICATION – DISCLOSURE – CRIMINAL HISTORY & CIVIL ACTIONS

Proposal No. 20-018 **Page 22**

DISCLOSURE – CRIMINAL HISTORY & CIVIL ACTIONS

In their proposal, the bidder is required to disclose if any of the following conditions apply to them, their owners, officers, corporate managers and partners (hereinafter collectively referred to as "Bidder"):

1. Within the three-year period preceding the proposal, they have been convicted of, or had a civil judgment rendered against them for:
   a. fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction;
   b. violation of a federal or state antitrust statute;
   c. embezzlement, theft, forgery, bribery, falsification, or destruction of records; or
   d. false statements or receipt of stolen property
2. Within a three-year period preceding their proposal, they have had a public transaction (federal, state, or local) terminated for cause or default.

Disclosure of the above information will not automatically eliminate a Bidder from consideration. The information will be considered as part of the determination of whether to award the contract and any additional information or explanation that a Bidder elects to submit with the disclosed information will be considered. If it is later determined that the Bidder failed to disclose required information, any contract awarded to such Bidder may be immediately voided and terminated for material failure to comply with the terms and conditions of the award.

Any Bidder who is awarded a contract must sign an appropriate Certification Regarding Debarment, Suspension, and Other Responsibility Matters. Additionally, the Bidder awarded the contract must immediately advise the County in writing if, during the term of the agreement: (1) Bidder becomes suspended, debarred, excluded or ineligible for participation in federal or state funded programs or from receiving federal funds as listed in the excluded parties list system (http://www.epls.gov); or (2) any of the above listed conditions become applicable to Bidder. The Bidder will indemnify, defend and hold the County harmless for any loss or damage resulting from a conviction, debarment, exclusion, ineligibility or other matter listed in the signed Certification Regarding Debarment, Suspension, and Other Responsibility Matters.

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CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS - PRIMARY COVERED TRANSACTIONS

INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.
4. The prospective primary participant shall provide immediate written notice to the department or agency to which this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms covered transaction, debarred, suspended, ineligible, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
6. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

CERTIFICATION

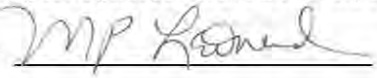
(1) The prospective primary participant certifies to the best of its knowledge and belief, that it, its owners, officers, corporate managers and partners:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Signature:  Date: 11/6/19

Michelle P. Leonard, Vice President
(Printed Name & Title)

Stearns, Conrad and Schmidt, Consulting Engineers, Inc.
dba SCS Engineers
(Name of Agency or Company)

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VII. REFERENCES

Proposal No. 20-018 **Page 25**

REFERENCE LIST

VENDOR MUST COMPLETE AND RETURN WITH REQUEST FOR PROPOSAL

Firm: Stearns, Conrad and Schmidt, Consulting Engineers, Inc. dba SCS Engineers

Provide a list of at least five (5) customers for whom you have recently provided similar services. If you have held a contract for similar services with the County of Fresno within the past seven (7) years, list the County as one of your customers. Please list the person most familiar with your contract. Be sure to include all requested information.

Reference Name: City of Fullerton Contact: Nadia Cook
Address: 1580 Commonwealth Ave
City: Fullerton State: CA Zip: 92833
Phone No.: (714) 738-2804 Project Date: 6/2018 - 9/2019
Service Provided: Solid waste and recycling consulting services that included CalRecycle support; technical and field support for the the City's Solid Waste and Recycling Franchise Agreement; provide technical assistance and outreach on implementing AB 1826 Commercial Organics Recycling Program; maintain/develope recycling programs; and attend progress meetings and prepare monthly reports.

Reference Name: Los Angeles County Contact: Clark Ajwani, P.E.
Address: 900 South Fremont Avenue
City: Alhambra State: CA Zip: 91803
Phone No.: (626) 458-4991 Project Date: 2016 - Present
Service Provided: Performed various solid waste consulting which includes research and consultation regarding waste reduction and recycling practices for Unincorporated County Area (UCA) businesses, multi-family residences, large venues, schools and other institutions, as well as County government agencies.

Reference Name: South Bayside Waste Management Authority (Rethink Waste) Contact: Hilary Gans
Address: 610 Elm St.
City: San Carlos State: CA Zip: 94070
Phone No.: (650) 802-3507 Project Date: 11/2016 - 7/2017
Service Provided: Solid waste consulting services that included research, report writing, developing board and committee packets, and performing other support duties related to the Recology Franchise Agreement Extension process. Also supported with report writing and potential research to assist in finalizing an agency assessment that was collaborated and delivered by the SBWMA Executive Director.

Reference Name: San Mateo County Contact: Lillian Clark
Address: 455 County Center
City: Redwood City State: CA Zip: 94063
Phone No.: (650) 743-6566 Project Date: 10/2017 - Present
Service Provided: Solid waste consulting services in relation to closed landfill and transfer station.

Reference Name: County of Contra Costa (dba RecycleSmart) Contact: Bart Carr
Address: 1850 Mt Diablo Blvd, Suite 320
City: Walnut Creek State: CA Zip: 94596
Phone No.: (925) 906-1801 ext.104 Project Date: 12/2017 - 7/2018
Service Provided: Provided solid waste consulting to understand what organic programs are currently in place, the volume of organic material currently diverted, processing capacity available, and recommendations on how to enhance organics programs to address the regulations of Senate Bill (SB) 1383. Provided additional services as needed by the County.

Failure to provide a list of at least five (5) customers may be cause for rejection of this RFP.

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*Please see page 14 for a list of our sub-consultants' references.

Table 1. Additional References

Sub-Consultant	Client	Contact	Phone	Address	Services
HFH Consultants	Fresno County	Dan Amann, Landfill Operations Manager	559-600-4309	2220 Tulare St, Fresno, CA 93721	Model update and training Fresno County American Ave landfill.
Recyclist	Sacramento County, Regional Solid Waste Authority	Etienne Ozorak Currently: Integrated Waste Superintendent, City of Glendale	818-550-3468	850 Goethe Road Sacramento, CA 95827	Provided services aggregating data across multiple franchised and non-franchised haulers.
	Riverside County, Department of Waste Resources	Angela Dufresne, Principal Engineer	909-226-8461	14310 Frederick St, Moreno Valley, CA 92553	Provided services aggregating data across multiple franchised and non-franchised haulers.
JP Marketing	Fresno County Department of Behavioral Health	Brian Bishop, Staff Analyst	559-600-6843	1925 E. Dakota Ave Fresno, CA 93726	Developed Suicide Prevention Awareness Public information program.
	City of Fresno, Department of Public Utilities	Alicia Real, Recycling Coordinator	559-621-1878	1325 El Dorado St. Fresno CA 93706	Developed Public information program for the Solid Waste Management Division for the City of Fresno.
	Fresno County Department of Public health	Elizabeth Tello, Staff Analyst	559-600-6478	1221 Fulton St, Fresno, CA 93721	Developed Tobacco Prevention in Behavioral Health Facilities program.

VIII. PARTICIPATION

Proposal No. 20-018 Page 26

PARTICIPATION

The County of Fresno is a member of the California Association of Public Procurement Officials (CAPPO) Central Valley Chapter. This group consists of Fresno, Kern, Kings, and Tulare Counties and all governmental, tax supported agencies within these counties.

Whenever possible, these and other tax supported agencies co-op (piggyback) on contracts put in place by one of the other agencies.

Any agency choosing to avail itself of this opportunity, will make purchases in their own name, make payment directly to the contractor, be liable to the contractor and vice versa, per the terms of the original contract, all the while holding the County of Fresno harmless. If awarded this contract, please indicate whether you would extend the same terms and conditions to all tax supported agencies within this group as you are proposing to extend to Fresno County.

*** Note: This form/information is not rated or ranked for evaluation purposes.**

☑ Yes, we will extend contract terms and conditions to all qualified agencies within the California Association of Public Procurement Officials (CAPPO) Central Valley Chapter and other tax supported agencies.

☐ No, we will not extend contract terms to any agency other than the County of Fresno.

(Authorized Signature)

Vice President

Title

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IX. EXCEPTIONS

SCS abides by all general conditions and requirements within the RFP.

X. VENDOR COMPANY DATA

A. A narrative which demonstrates the vendor's basic familiarity or experience with problems associated with this service/project.

Overview

SCS ENGINEERS

Established in 1970, SCS Engineers (SCS) is one of the most experienced and most widely respected employee-owned environmental consulting firms in the United States. The firm is also one of the premier solid waste consulting firms in the nation. SCS's SMM practice is a key part of their core Solid Waste services, and is an integral and growing segment of the company's overall operations. The firm's SMM practice is leading the charge to sustainability through innovative and effective residential and commercial recycling programs, diversion policies, organics management, permitting and permit evaluations, greenhouse gas (GHG) reduction strategies, construction and demolition (C&D) debris recycling systems, and procurement policies.

Serving clients in all 50 states and internationally, SCS employs over 840 engineers, geologists, planners, analysts, technicians, safety consultants, managers, and professional support staff, including over 300 in California. SCS's SMM staff specialize in all aspects of solid waste planning and operations, including the completion of comprehensive solid waste/Zero Waste management plans, waste characterization studies, waste diversion alternatives studies, feasibility studies, program analyses, financial analysis and rate studies, collection and efficiency assessments, organizational assessments, permits and permit evaluations, and many more support services. The firm helps leaders of solid waste departments comply with AB 32, AB 341, AB 939, AB 1045, AB 1594, AB 1826, and SB 1383 by assessing, planning, implementing, supporting, and monitoring well-established and innovative recycling and waste diversion programs.

CRITICAL SUCCESS FACTORS

- EXTENSIVE EXPERIENCE COMPLETING RATE REVIEWS, 20-YEAR PLANNING PROJECTIONS, AND ALTERNATIVES MODELING.
- EXPERTISE IN THE REGULATORY LANDSCAPE IMPACTING SOLID WASTE OPERATIONS IN CALIFORNIA.
- BROAD EXPERIENCE IN SUSTAINABLE MATERIALS MANAGEMENT TECHNOLOGIES, TRENDS, AND BEST PRACTICES.

Serving Fresno County

We have partnered with the County before where we have worked on landfill related projects. Some of our projects include transfer station design, landfill gas master plan, supporting the Southeast Regional (SER) Commission in Waste-to-Energy (WTE) contractor procurement, landfill gas services, landfill gas designs, and compliance evaluation related to Title 27 California Code of Regulations (CCR).

Meeting Regulatory Compliance

SCS has helped clients with regulations such as AB 939, AB 341, AB 1826, and SB 1383 by helping with planning, data collection, and implementation and outreach efforts. While many know SCS Engineers as a landfill engineering firm, we are now being recognized as an overall sustainability firm. Our President and Board of Directors have placed a heavy emphasis on SMM because they recognize landfills may be a thing of the past. Our efforts to help our clients stay ahead of the curve,

allow us the opportunity to affect change by advising and providing solutions on how they will comply with regulations. We also place a heavy focus on training and educating staff so they remain informed to better help our clients. Our SMM team is certified in composting, organics outreach, zero waste, Community Based Social Marketing, and a Registered Environmental Health Specialist, this experience will serve well for this project.

Solid Waste Planning

While SCS's experience spans the nation, the firm has particular strength in California, having assisted hundreds of clients with designing and implementing residential and commercial collection programs, multi-family recycling programs, recycling at public venues and special events, and reporting and monitoring program results.

Nationally, SCS has completed approximately 10,000 individual waste and recycling reviews, solid waste and Zero Waste plans, facility feasibility studies, collection and disposal alternatives surveys, rate analyses, permitting evaluations, waste characterization studies, and other research projects, over 500 of which have been completed by their SMM professional staff.

Sustainable Materials Management

SCS' SMM professionals specialize in all aspects of solid waste planning and operations, including solid waste and materials management/zero waste plans and implementation, waste characterization studies, public outreach and education programs, organics diversion (including collection and processing services), financial analysis and rate studies, collection and efficiency assessments, and organizational assessments.

Our team has decades of combined experience in developing and implementing innovative high-diversion plans, programs, and facilities from policy development to on-the-ground technical /implementation support. These projects have included focus on recycling and organics diversion programs, and, in the more recent years, specifically on complying with AB 341 and AB 1826 requirements. **With the passing of SB 1383, we are assisting clients with planning for compliance including projects with the Central Contra Costa Solid Waste Authority, Merced County Regional Waste Management Authority, County of Los Angeles and Santa Clara, and City of Fullerton and El Segundo.** Our contract management work involves providing AB 939, AB 341, AB 1826, and other regulatory compliance assistance, including preparing annual reports, and developing construction and demolition (C&D) ordinances and monitoring compliance.

Organics Material Management

SCS assists communities in evaluating waste streams and determining the applicability of both traditional and emerging organics materials technologies. Our staff is devoted to staying current with the latest trends and technologies in this sector. They evaluate and provide unbiased analyses on approaches and technologies so that their clients can make informed decisions.

What truly sets SCS apart from other consulting firms is that they actually operate composting facilities. **SCS operates five compost facilities on the East Coast, ranging from 2 to 36 acres, where SCS manages from 5,000 to 25,000 cubic yards of material each year. SCS knows first-hand how to produce a high-quality product and the most appropriate composting technologies and equipment to use, based on site, feedstock, and regulatory considerations. They have also assisted clients in California and nationally with a variety of composting projects.** These projects demonstrate that SCS has the capabilities and personnel to provide a wide range of services in composting and organic materials management.

Commercial Recycling and Organics Waste Reduction Program

SCS regularly provides technical assistance with commercial and multi-family recycling and organics diversion programs, coordinating efforts to comply with existing and proposed legislature, including AB 341, AB 1826, AB 939, AB 876, AB 199, AB 1045, and SB 1383. To assist clients in reaching both immediate and long-term objectives, SCS provides a variety of services relating to these mandates, including but not limited to: capacity assessment and documentation, waste characterization studies, outreach and training, site assessments, compliance recommendations, and implementation assistance. SCS prioritizes communication and collaboration in these efforts. That is why SCS works with clients to build on existing programs and incorporate past successes into current efforts where possible. This helps to maximize results and increase waste diversion. SCS also regularly facilitates community outreach efforts, assisting with strategy coordination and development to optimize participation in compliance efforts at multiple levels, encompassing commercial, multi-family, and individual residences.

Founded in 1989, HF&H's largest service area has been the negotiation and management of solid waste franchise agreement, with RFP and negotiation projects accounting for as much as half of their annual work. Since the implementation SB 1383 in 2016, HF&H has developed and refined tools to help clients plan for SB 1383 compliance, identify program gaps, provide for food recovery, identify processing capacity, and negotiate contractor roles in implementation and compliance. HF&H's processes and people are highly effective in achieving superior results, while minimizing the impact on public agency staff and elected officials.

Recyclist creates cloud-based solutions that make solid waste program management easy. The triple-bottom-line company designs software to empower citizens, government and business with the information they need to move our world toward a more sustainable future. Recyclist's Software-as-a-Service (SaaS) products — used by cities, counties and waste haulers — provide new visibility into waste stream data, innovative ways to track commercial outreach and compliance, and state-of-the-art digital recycling education for residents. Founded in 2014 in Truckee, California, the company is certified as both a SB (Small Business) and a DBE (Disadvantaged Business Enterprise).

Because the founders of JP Marketing, Jane Olvera and Paul Quebe, began their careers in local news in Fresno, they are intimately familiar with the stories surrounding this local geographic area that date back nearly 30 years. Since 1994, JP Marketing has supported special initiatives for local organizations which have helped us prepare to super-serve our current Fresno County government and public agency clients.

B. Descriptions of any similar or related contracts under which the bidder has provided services.

Contra Costa County - Senate Bill 1383 Organics Planning, Central Contra Costa Solid Waste Authority

SCS performed work for the Central Contra Costa Solid Waste Authority (dba RecycleSmart) to understand what organic programs are currently in place, the volume of organic material currently diverted, processing capacity available, and provide recommendations on how to enhance organics programs to address the regulations of SB 1383.

SB 1383 regulations are still in draft form, and some of the organic diversion information is difficult to assess. We worked with RecycleSmart and their franchised collection hauler to receive data and program information to provide a full picture of which organic programs are currently established, and which programs should be enhanced or added to meet SB 1383 regulations. Our recommendations were based on metrics, reporting, and monitoring, which are required in the regulations.

Santa Clara County - Composting Processing Capacity and Organics Diversion Study

Santa Clara County sought to assess current and potential capacity for organics diversion that would be processed under all existing and future applicable solid waste and organics diversion legislation, including AB 341, AB 1826, AB 939, AB 876, AB 199, AB 1045, and SB 1383. The county requested assistance to conduct a detailed study of waste reduction and infrastructure alternatives, including anaerobic digestion, small scale in-vessel composting, backyard composting, grass-cycling, food rescue, and other hitherto unexplored viable alternatives that would support increased composting and organics diversion over the next 15 years. Project work was from January 2017 to December 2017.

We helped the county document current and future capacity at all major facilities within and in close proximity to the greater Santa Clara County region, including the practical steps each will need to take to accommodate increased operations. SCS also assessed additional composting capacity within residential, education, farming, and public service sectors; identified and discussed emerging technologies, backyard composting capacity, current and future food waste reduction projects, and the prevalence of organics backhauling. SCS used the results of this assessment to recommend next steps for attaining compliance with AB 341, AB 1826 and SB 1383, and these recommendations align with the USEPA food waste hierarchy, the markets for end-products, greenhouse gas emission reduction and state regulations.

Los Angeles County - Sustainable Waste Management/Commercial Institutional Recycling Program (CIRP)

The County of Los Angeles Public Works Department has adopted a "*Roadmap to a Sustainable Waste Management Future"*. The goal of this "*Roadmap"* is to help the county implement waste reduction, reuse, recycling and composting systems at county facilities, in the county unincorporated communities, and in the overall Los Angeles County region.

The county has over 20 different departments, numerous divisions, and thousands of facilities. SCS is currently visiting over 25 County facilities and developing facility case studies that will enable coordination of recycling activities between these entities, and a sharing of experiences, challenges, and successes. A web-based training program is under preparation, which will facilitate the dissemination of information.

City of Fullerton – Solid Waste and Recycling Consulting

The City of Fullerton sought to improve their solid waste program to ensure they were on track for compliance with AB 1826, AB 939, and AB 341. Our services included: CalRecycle support; technical and field guidance on the administration of the city's solid waste and recycling franchise agreement; technical recycling assistance, education, and outreach to local restaurants and businesses on implementing AB 1826 commercial organics recycling program; maintain and develop recycling programs; attend progress meetings and prepare monthly progress reports; and perform other duties as assigned by the city.

RethinkWaste/South Bayside Waste Management Authority (SBWMA) - Franchised Hauler Agreement Support Services, RethinkWaste

RethinkWaste is a JPA that includes 12 public agencies in San Mateo County. In November 2016, RethinkWaste/SBWMA sought assistance with multiple, complex tasks associated with renewal of the Recology franchise agreement extension process. Working under a tight project schedule, the city enlisted SCS to meet its project milestones and mandated reporting deadlines. Successful project completion involved two primary tasks. The first task included support with research, report writing, developing board and committee packets, and performing other support duties related to the Recology franchise agreement extension process.

The second task involved support with report writing and potential research to assist in finalizing an agency assessment. The goal was accomplished through our collaborative work with the SBWMA Executive Director in providing the agency assessment to the Board of Directors at their February 2017 meeting.

City of Alameda - Zero Waste Implementation Plan Technical/Implementation Assistance for Business and Multi-family Properties

In October 2018, the City of Alameda hired SCS to perform zero waste technical assistance. The objective of the project was to help the city meet its zero waste goals of 89 percent diversion by 2020. SCS collaborated with city staff and the franchised hauler, Alameda County Industries (ACI), to provide technical assistance to commercial and multi-family sites identified as being large waste generators. SCS provided project management, direction, field staff, data management and reporting for this project.

The businesses visited were large waste generators and had site-specific obstacles that made it difficult to decrease the amount of waste they sent to landfill. Additionally, Alameda has issues with illegal dumping, homeless, and personnel who do not care about waste diversion. SCS staff had to use persistent tactics, letters from the city and the county, and violation and fines if business owners

and/or property managers did not comply. These tools were effective in gaining most businesses compliance.

During the 2018/19 fiscal year, the SCS team completed 133 site visits, conducted 31 trainings, completed 79 waste assessment forms, added 99 cubic yards (CY) of new weekly recycling service, 24 CY of new weekly organics service, reduced garbage service by 51 CY per week, and identified 542 CY per week of backhauled or third party diversion. SCS was initially provided the top 50 generators with a reported 18.4 percent diversion rate in October of 2018. **As of October 2019, 60 generators have achieved a collective 48.9 percent diversion rate.**

City of Glendale - Regulatory Compliance and Reporting

SCS began work with the City of Glendale in September 2016. The city presently had nearly 30 haulers that service the commercial sector; however, the city did not have an ordinance that requires haulers to report on their activities. Therefore, the city was unable to report on progress towards implementing AB 341, AB 1826, and other regulatory requirements. The new franchise agreement prepared and facilitated by SCS, once implemented, will assist the city in meeting its regulatory and reporting obligations and achieving compliance with new legislation.

To date, SCS has accomplished multiple project tasks to assist the city with regulatory and reporting requirements. We began by assessing applicable laws and regulations, including the city's municipal code and Zero Waste Plan as they relate to solid waste collection and regulation of private haulers, as well as laws governing the management of municipal solid waste in Glendale. This enabled our team to identify state regulations, including CalRecycle reporting requirements, that the city's current open permitting system is incapable of complying with. Based on findings, our team advised the city of the latest legislation regarding franchising, franchising models, and methods of operation necessary to sustain the Glendale's current and future solid waste enterprise. We also coordinated with the hauler community to collect service level and rate data from the five largest haulers. Based on insights from this data, our team developed a model to be used to perform a predictive analysis on the likely fiscal impacts upon current commercial refuse collection rates.

Additional related projects can be found in Table 3, page 43.

C. Descriptions of the qualifications of the individual(s) providing the services.

Please find below our team's solid waste qualifications for each key personnel. Full resumes and additional team members can be found in Appendix A – Resumes on page A-1.

ROLE: PROJECT MANAGER/DIRECTOR **MICHELLE LEONARD**

Years of Experience: 36
Sample Projects:

- RecycleSmart, SB 1383 Planning and Reporting Assistance
- County of Los Angeles Department of Public Works, Smart Business Recycling Program Compliance with SB 1383
- South Bayside Waste Management Authority Agency Assessment and Franchise Negotiation Assistance
- County of Santa Cruz, Strategic Planning Support
- Placer County, Organics Recycling Plans for Eastern & Western Placer County

Michelle leads SCS's growing SMM practice and is an SCS Vice President. She has 36 years of directly relevant experience with an emphasis on solid waste management planning and policy development**. She has helped public and private sector clients, including JPAs, in the preparation of solid waste management plans and ensuring compliance with SB 1383;** designed and implemented waste reduction, recycling, and reuse programs; and evaluated existing programs to identify opportunities to reduce, reuse, and recycle solid waste. She has prepared plans and permits for transfer stations, material recovery facilities (MRFs), and drop-off and buy-back centers. She has a strong working knowledge of solid waste management regulations and practices, and has presented successful projects to city, county, and state regulators, including the projects above mentioned.

ROLE: SENIOR STAFF PROFESSIONAL SUPPORT/QUALITY ASSURANCE **TRACIE ONSTAD BILLS**

Years of Experience: 25
Sample Projects:

- Merced County Solid Waste Authority, SB 1383 Planning and Reporting Assistance
- South Bayside Waste Management Authority Agency, Assessment and Franchise Negotiation Assistance
- Central Contra Costa Solid Waste Authority, SB 1383 Planning
- Santa Clara County, Organics Capacity Study
- County of San Mateo, Pescadero Transfer Station Feasibility Study and Organics Analysis

Tracie has over 25 years of materials management experience, including working for a hauler, a county government, and a non-profit; and over 12 years with materials management consulting firms. For the past 3 years, Tracie has been a key member of SCS's SMM group. She has contributed to the development of many solid waste plans, providing materials flow assessments, organics processing research and analysis, hauler customer service reviews, construction and demolition (C&D) ordinance reviews and recommendations, and recycling and organics management technical assistance to government agencies, schools, multi-family dwellings and businesses throughout Northern California. **An expert in the solid waste regulatory environment, she takes pride in her ability to engage stakeholders in meaningful, action-oriented ways to drive higher levels of regulatory compliance and customer service.**

ROLE: TASK 4 LEAD – REGULATORY REQUIREMENTS & RELATED COUNTY ORDINANCES **KAREN LUKEN**

Years of Experience: 30
Sample Projects:

- City of New Braunfels, TX; Solid Waste Management Plan & Rate Study
- City of Olathe, KS; Strategic Solid Waste Management Plan
- Cuyahoga County Waste District, OH; Strategic Evaluation
- Saint Louis County, MO; Solid Waste Management Plan
- Kaua'i and Oahu Counties, HI; Solid Waste Management Plans

Karen has almost 30 years of experience helping communities throughout the world systematically assess and improve their solid waste management programs, facilities and services. While serving as the director of the Hamilton County Solid Waste District, Karen gained first-hand experience on

the challenges of designing and implementing county-level programs that required support from multiple municipalities. **There are 52 municipalities in Hamilton County and 100 percent approved the waste management plan that Karen developed and implemented.**

Karen uses this knowledge to help cities, counties and national governments design strategic plans that achieve their waste management goals. **Karen's diverse project experience in the United States, as well as globally, gives her clients insight on emerging trends and best practices in waste management and recovery.** Karen then works closely with her clients to harmonize these trends and practices with the goals and conditions of the local community. Finally, Karen guides these communities in designing education and outreach campaigns to effectively convey key messages and foster a shared vision amongst residents, business and government officials for new solid waste management systems, policies and programs.

ROLE: TASK 1 LEAD –ASSESSMENT OF CURRENT & PAST SOLID WASTE DOCUMENTS — LISA COELHO

Years of Experience: 5
Sample Projects:

- Central Contra Costa Solid Waste Authority SB 1383 Planning
- Santa Clara County Organics Capacity Study to Track SB 1383 Compliance
- City of Santa Clara, Pilot Residential Food Scraps Recycling Program Analysis and Recommendations for SB 1383 Compliance
- City of Sunnyvale, FoodCycle: Residential Food Scraps Recycling Program Analysis and Recommendations for SB 1383 goals

Lisa is a SMM Specialist with a passion for organics programs. As a Zero Waste Program Coordinator and Environmental Programs Consultant, she has over 5 years of experience in the solid waste industry, specifically working with municipalities. She has unique previous work experience as a staff member for the City of Santa Clara, Department of Public Works, and the City of Sunnyvale, Environmental Services Department. In these roles, she provided extensive technical assistance to single-family residential customers, schools, restaurants, and commercial business customers.

Lisa is currently assisting municipalities with California's SB 1383. In addition to the above projects, **she assists the Counties of Alameda and Monterey with their solid waste research, program planning, and technical assistance.** She excels in the development of communication materials, such as tailored video and multimedia outreach presentations. She is research oriented, with a strong background in community-based social marketing; outreach and education; data gathering and analysis; and project management.

ROLE: STAFF PROFESSIONAL SUPPORT — AMBER DURAN

Years of Experience: 5
Sample Projects:

- County of Los Angeles Department of Public Works, Smart Business Recycling Program Compliance with SB 1383
- City of Fullerton, Solid Waste and Recycling Services, Including Tracking and Reporting for AB 1826, AB 939, and AB 341
- City of El Segundo, Solid Waste Consulting Services, Including Compliance Reporting

- StopWaste, Alameda County, Waste Characterization Study
- County of San Mateo Pescadero Transfer Station Feasibility Study and Organics Analysis

Amber has a diverse background in solid waste management and environmental health. Working with the SMM team, she delivers quality technical support to businesses, multifamily dwellings, and government facilities to increase recycling participation, deliver outreach and education, coordinate collection with haulers, and collect data. **Her experience in government and the private sector have sharpened her capability to collaborate with multiple types of organizations.**

ROLE: STAFF PROFESSIONAL SUPPORT — LYNEA BAUDINO

Years of Experience: 3
Sample Projects:

- Santa Clara County Organics Capacity Study
- City of Berkeley, Disposable Foodware and Litter Reduction Ordinance
- City of Alameda, Zero Waste Alameda
- Alameda County Green Business Program
- County of San Mateo Pescadero Transfer Station Feasibility Study and Organics Analysis

Ms. Baudino is a SMM Specialist with a passion for organics programs. She has over 3 years of experience in the solid waste industry, specifically working with local municipalities and non-profits. She has previously worked as a staff member for the City of Fremont's Environmental Services Department and the Ecology Center in Berkeley. **She provides technical assistance to clients, including residents, property managers, schools, city facilities, and businesses. She has extensive experience conducting qualitative and quantitative research on environmental policy and technology.**

ROLE: TASK 2 LEAD ESAP ASSESSMENT/SUPPORT — ROBERT HILTON

Years of Experience: 17
Sample Projects:

- City of Fresno, Franchise Contracts and RFP Development
- Tulare County, Franchise Agreement and AB 341 and AB 1826 Compliance
- Merced County Regional Waste Management Authority (MCRWMA); SB 1383 Program Compliance Analysis

Rob has provided recycling and solid waste consulting services to public agencies in projects covering a wide range of strategic, operational, programmatic, contractual, and financial issues. Rob leads HF&H's California franchising team in support of more than a dozen communities each year who are either competitively procuring or negotiating solid waste collection, processing, and/or disposal contracts. **In addition, he has lead HF&H's statewide efforts since 2016 to prepare local government clients for SB 1383. These efforts include several SB 1383 implementation plans, SB 1383-compliant franchise agreements, SB 1383-compliant ordinances, and a series of SB 1383 Local Government Summits.**

ROLE: TASK 2 ESAP SUPPORT — TRACY SWANBORN, PE

Years of Experience: 29
Sample Projects:

- City of San José, Franchise Contracts and RFP Development
- CalRecycle, Model Implementation Tools and Support to Reach SB 1383 Compliance
- County of San Diego, SB 1383 Program Compliance Analysis

Tracy's expertise is in collection, transfer, processing, and disposal services procurement, contract development, and negotiations. She also has extensive experience assisting jurisdictions with diversion program planning including organics diversion programs.

Tracy has been actively involved in monitoring the development of SB 1383. She attended in person or by webinar all of CalRecycle's SB 1383 informal rule-making workshops and CalRecycle's March 2019 SB 1383 hearing. As part of the HF&H team that developed and hosted two SB 1383 Local Government Summits in 2018 for jurisdictions, **Ms. Swanborn was instrumental in developing the SB 1383 presentation and presented a significant portion of the content. She also led the preparation of HF&H's SB 1383 compliance checklist, which has been distributed widely to jurisdictions.**

For more information on the Task 2 ESAP team, please see Appendix A – Resumes.

ROLE: TASK 3 DATA MANAGEMENT LEAD — EMILY COVEN

Years of Experience: 5
Sample Projects:

- Provided Data Processing and Management / Program Tracker for the following clients:
  - San Luis Obispo County IWMA
  - Placer County
  - City of Alameda
  - City of Cupertino
  - Sonoma County Resource Recovery
  - City of Clovis
  - Sacramento Regional SWA
  - Milpitas Sanitation
  - Salinas Valley Solid Waste Authority
  - Sonoma County

Emily created and launched the Recyclist Program Tracker, a cloud-based data management tool that municipal solid waste and recycling program managers use to gain direct insight into waste streams, track compliance, and conduct effective, targeted outreach. **She provides customized technology solutions throughout the waste industry, including creating a county-wide digital media strategy, developing mobile load-checking apps for contamination prevention, building custom data management platforms, and designing custom website solutions.**

ROLE: TASK 3 DATA SUPPORT — SARA MCCADDEN

Years of Experience: 10
Sample Projects:

- Provided Data Processing and Management / Program Tracker for the following client s:
  - San Luis Obispo County IWMA
  - Placer County

- City of Alameda
- City of Cupertino
- Sonoma County Resource Recovery
- City of Clovis
- Sacramento Regional SWA
- Milpitas Sanitation
- Salinas Valley Solid Waste Authority
- Sonoma County

Sara is highly experience in preparing technical reports in compliance with CEQA/NEPA, ESA, and SMARA; developing and managing program budgets; reviewing grants; knowledgeable of California Codes, primarily in Environmental Protection and Natural Resources titles.

ROLE: TASK 3 DATA MANAGER — PATTI RAAB

Years of Experience: 20
Sample Projects:

- Provided Data Processing and Management / Program Tracker for the following clients:
  - San Luis Obispo County IWMA
  - Placer County
  - City of Alameda
  - City of Cupertino
  - Sonoma County Resource Recovery
  - City of Clovis
  - Sacramento Regional SWA
  - Milpitas Sanitation
  - Salinas Valley Solid Waste Authority
  - Sonoma County

Patti has extensive experience with both technical and non-technical teams across all levels of an organization to provide accurate reliable data for analysis, answering questions and leading to new discoveries and insights. **Proficient in the development and design of interactive business analytics, dashboards and reports meeting all levels of company requirements with recognized problem solving skills and a proven ability to understand and anticipate customer needs.**

ROLE: TASK 5 - OUTREACH LEAD — JANE OLVERA

Years of Experience: 30
Sample Projects:

- Fresno County Department of Public Health and Fresno County Health Improvement Partnership Branding, Develop Umbrella Brand for Fresno County
- Fresno County Department of Behavioral Health Focus Groups, Enhanced Outreach Efforts and Communications Plan
- Southern California Association of Governments, Enhanced Outreach Efforts and Communications Plan

Jane Olvera is the Founder and President of JP Marketing. She has more than 30 years of experience related to strategic brand development for municipalities, including County of Fresno and City of Fresno.

ROLE: DIRECTOR OF CLIENT SERVICES — MICHELE MEISCH

Years of Experience: 25
Sample Projects:

- Fresno County Department of Public Health and Fresno County Health Improvement Partnership Branding, Develop Umbrella Brand for Fresno County

- Fresno County Department of Public Health, Tobacco Cessation Community Outreach
- Fresno County Department of Behavioral Health, Suicide Prevention Awareness Campaign

Michelle has more than 25 years of experience related to strategic brand development for municipalities, including County of Fresno and City of Fresno. She is also skilled in media strategy and negotiation strategy, data analysis, comprehensive campaign post analysis, and budget management.

For more information on the Outreach team, please view Appendix A - Resumes on page A-1.

D. Any material (including letters of support or endorsement) indicative of the bidder's capability.

Our team has received recommendation letters based on our performance in providing solid waste services from Placer County, Central Contra Costa Solid Waste Authority and City of Kirkwood. For the full letters of recommendations, please see Appendix B - Letters of Recommendation on page B-1, quotes can be found on page 29.

SCS PROVIDED THE COUNTY WITH THE TECHNICAL EXPERTISE THAT WAS ESSENTIAL TO THE SUCCESSFUL COMPLETION OF THE PROJECT. THE RESULTING DOCUMENT WAS A WELL-ORGANIZED AND EASILY UNDERSTANDABLE, AND PROVIDED THE COUNTY WITH VALUABLE INFORMATION FOR USE IN ITS THE DECISION MAKING PROCESS.

I WOULD RECOMMEND SCS AND TRACIE BILLS AND MICHELLE LEONARD FOR WORK INVOLVING ORGANIC WASTE MANAGEMENT, OPERATIONAL/FINANCIAL ANALYSIS, AND INFRASTRUCTURE DEVELOPMENT.

CASEY FORD, PE, PLACER COUNTY

SCS ENGINEERS WAS CONTRACTED THROUGH THE CENTRAL CONTRA COSTA SOLID WASTE AUTHORITY (CCCSW A) AND REPUBLIC SERVICES TO PERFORM VISUAL CHARACTERIZATIONS AND COMMERCIAL TECHNICAL ASSISTANCE FOR OUR SIX MEMBER AGENCIES. I HAVE HAD THE OPPORTUNITY TO WORK WITH TRACIE OVER THIS PAST YEAR AND FIND HER A JOY TO WORK WITH AS WELL AS EXTREMELY KNOWLEDGEABLE AND HAVING AN EXTENSIVE ARRAY OF SOLID WASTE AND RECYCLING EXPERIENCE.

KEN ETHERINGTON, EXECUTIVE DIRECTOR, CENTRAL CONTRA COSTA SOLID WASTE AUTHORITY

I WOULD HIGHLY RECOMMEND SCS ENGINEERS TO OTHER MUNICIPAL SOLID WASTE PROGRAMS BECAUSE OF THEIR KNOWLEDGE OF THE INDUSTRY AND **THEIR ABILITY TO PROVIDE THE HARD FACTS OF OPERATIONAL DEFICIENCY IN A POSITIVE, HOPEFUL PERSPECTIVE.**

WILLIAM E. BENSING, JR., DIRECTOR OF PUBLIC SERVICES, KIRKWOOD, MISSOURI

E. A brief description of the bidder's current operations, and ability to provide the services.

SCS Engineers was established in Southern California as a partnership on the first Earth Day in April 1970 and is 100 percent owned by its employees. SCS Engineers is a full-service environmental engineering consulting firm specializing in solid waste management and environmental services.

McGraw Hill's Engineering News Record (the engineering industry's preeminent rankings publication) has nationally ranked SCS as a top-tier consulting firm in design, environmental engineering, solid waste, wastewater, site assessment, and compliance. Waste360 has ranked SCS Engineers in the Top 100 Solid Waste and Recycling Design-Build Firms in North America.

Expertise in Municipal Waste Recycling & Recovery Services

SCS is one of the few environmental consulting firms in the country that specializes in systematic municipal waste management consulting. We are national leaders in comprehensive solid waste planning, collection, and processing assessments, regulatory review, financial analysis and community outreach to promote responsible waste reduction, reuse, recycling, and recovery.

SCS has an entire practice area devoted to SMM — one of our fastest growing and most vibrant areas of specialization.

The concept of SMM is part of a paradigm shift. Recyclables used to be what we kept out of the trash. Now, trash is what we have left over after we reduce, reuse, recycle, and compost.

Cities and counties across the nation are now pursuing Zero Waste. **Zero Waste is a design principle**. It goes beyond recycling and focuses first on source reduction, environmentally preferable purchasing, reuse, before recycling and composting. SCS promotes reuse, recycling, and conservation programs, and also – more importantly – emphasizes SMM by considering the entire life-cycle of products, processes, and systems. SCS's project solutions strive to eliminate waste by reducing consumption and advocating for the redesign of products and packaging so they can be reused, recycled back into the marketplace, or composted back into the soil.

We have significant experience assisting government agencies in California and other states with the implementation of recycling and waste diversion programs, and helping leaders of solid waste departments tasked with evaluating their compliance with SB 1383, AB 939, AB 341, AB 1826, and other solid waste regulations. Our relationships with collection companies assists our effectiveness with understanding the barriers and best practices for developing tools and implementation.

SCS has completed approximately 10,000 individual studies, surveys, audits, and research projects concerning a wide range of solid waste and environmental issues — over 500 of which have been completed by our vibrant and growing SMM practice.

SCS's growing team of SMM professionals perform the following suite of services in Table 2 on page 32.

Table 2. SCS Organic Material Management Services

Program Planning and Studies	✓ Regulation Review and Compliance Planning ✓ Comprehensive SMM, Strategic Solid Waste, & Zero Waste Plans ✓ Policy Development and Implementation ✓ Organics Recycling, Capacity Study, Future Planning and Reporting ✓ Site Assessments and Evaluations for Infrastructure Expansion ✓ Organics Processing Facility Design and Construction ✓ Edible Food Recovery Capacity Study and Planning ✓ Benchmarking of Services and Fees ✓ Diversion Analysis and Planning ✓ Waste Generation and Characterization Studies ✓ Contamination Studies and Sampling Protocol Development ✓ Feasibility Studies ✓ Greenhouse Gas Inventories
Financial and Economic Analysis	✓ Rate Analysis ✓ Hauler Audits ✓ Cost of Service Studies ✓ Franchise Agreement Reviews ✓ Cost, Financial, and Economic Analysis ✓ Evaluation of Public-Private Partnerships ✓ Development of RFQ/RFP/Bid Documents ✓ Procurement Assistance ✓ Grant Funding Applications and Management ✓ Customer Billing and Service Reviews
Program Design and Implementation	✓ Collection, Waste and Diversion Assessments ✓ Business and Multi-family Technical Assistance ✓ Generator Surveys ✓ Prepare Implementation Schedules ✓ Monitoring and Evaluating Programs ✓ Assess Program Effectiveness and Identify Efficient Improvements ✓ Special Events and Public Venue Programs ✓ Develop and Maintain Food Recovery Organization Lists ✓ Inspections for Edible Food Generators ✓ Employee and Janitorial Training Workshops ✓ Comprehensive Data Management and Analysis ✓ Establish Communication Models for Local Government Officials, Food Suppliers and Intermediary Organizations ✓ Annual Reporting for Regulatory Compliance ✓ Construction & Demolition Debris Diversion Programs ✓ LEED Certification
Public Outreach and Education	✓ Development of Public Education Programs ✓ Outreach for Edible Food Generators and Recovery Entities ✓ Provide Guidance to Interface with Health Departments ✓ Facilitation of Public Meetings, Workshops, Seminars and more ✓ Design and Create Employee and Volunteer Protocols ✓ Administer Public Opinion Surveys ✓ Development of Flyers, Newsletters, Social Media, and Other Collateral

F. Copies of the audited Financial Statements for the last three (3) years for the agency or program that will be providing the service(s) proposed. If audited statements are not available, compiled or reviewed statements will be accepted with copies of three years of corresponding federal tax returns. This information is to be provided after the RFP closes, if requested. Do not provide with your proposal.

After the RFP closes and upon request from the County, we will provide our audited financial statements for the last three years.

G. Describe all contracts that have been terminated before completion within the last five (5) years:

SCS does not track information on terminations unless the matter has resulted in claims or litigation. SCS has not been terminated for default.

H. Describe all lawsuit(s) or legal action(s) that are currently pending; and any lawsuit(s) or legal action(s) that have been resolved within the last five (5) years:

Please see attached disclosure in Appendix C - Legal Disclosure on page C-1.

I. Describe any payment problems that you have had with the County within the past three (3) years:

SCS has not had any payment problems with the County within the past three years.

XI. SCOPE OF WORK

PROJECT UNDERSTANDING

Fresno County is seeking improvement within their current Solid Waste Plan where they are currently responsible for 14 territories and 8 solid waste and recycling haulers in an Exclusive Service Area Program (ESAP). We understand that the regulatory climate of solid waste management is changing and can be complicated by several factors including various municipalities in JPAs; local, state, and federal policies and regulations; community education and outreach; budget; and market conditions.

As stated in the RFP, the County has extensive planning data including details about the regional landscape, community growth projections, existing waste management programs, processing capacity and potential opportunities for landfill diversion. We will analyze and synthesize the County's wealth of data to develop a Masterplan detailing a coordinated approach to ever-efficient waste management to meet the immediate needs of the County as well as the projected needs over the next 5, 10, 15 and 20 years.

The results and recommendations within the Masterplan will establish short-, medium- and long-term goals best suited for developing cost effective projects, programs, and solutions for the community. The Masterplan will consider, where appropriate, residential, commercial, institutional, and recreational wastes, special and hazardous wastes and how best to utilize existing resources, vendors and partnerships, and identify new opportunities. The Masterplan will also provide comprehensive strategies and policies for processing waste at existing facilities, increasing waste diversion and reducing waste volumes, and controlling community waste collection costs with specific focus on the SB 1383 organics diversion requirements.

SB 1383 prescribes jurisdictions to implement mandatory organics management programs and policies to achieve a statewide reduction of organics sent to the landfill. The overarching goal is a 50 percent reduction of statewide organics sent to landfill by 2020 and a 75 percent reduction by 2025. The requirements for jurisdictions include:

- Provision of organics recycling services to all residential and commercial customers;
- Conducting an organics capacity and edible food recovery capacity study;
- Supporting capacity expansion (if applicable to meet the organics tonnage projections);
- Adoption of local ordinances to support and enforce SB 1383 requirements;
- Container color and labeling requirements;
- Outreach and education requirements;
- Monitoring and enforcement to minimize contamination;
- Regulation of self-haulers;
- Purchasing requirements;
- And implementation of an edible food recovery program for commercial customers.

Our team has extensive experience collaborating with municipalities to develop strategic waste management plans; conducting organics processing capacity studies; analyzing and updating local and regional policies; customizing education and outreach; and assisting with data management for regulatory reporting. Additionally, our team possesses an intimate understanding of the requirements of SB 1383 and can find opportunities for improving a program design and implementation strategies to meet your landfill diversion goals.

OUR PROJECT APPROACH

While many of the tasks may be the same, the approach for developing a plan that achieves a client's goals is highly unique to each project. Certain project tasks, such as establishing a baseline and assessing existing plans and programs, are fundamental components of a strategic planning process. For your project, we will follow ensure to meet your needs by:

1. **Collaborating**
    - Engage with all County staff and stakeholders to ensure a systematic approach.
    - Review and analyze existing: programs, policies and outreach.
    - Model current and projected organics generation, disposal, collection and processing.
2. **Innovating**
    - Research opportunities for state-of-the-art technologies, strategies and end market solutions to achieve compliance with current and future regulations.
    - Recommend policy and solid waste agreement enhancements.
3. **Communicating**
    - Develop a Masterplan to address short-, medium- and long-term needs and goals.
    - Present findings to stakeholders and synthesize technical information for dissemination to Board Members and local elected officials.
    - Develop an education and outreach strategy to achieve needs and goals, recommendations updating or creating outreach collateral in compliance with SB 1383 and a recommended communication implementation plan.

Task 1 - Assessment of Current and Past Solid Waste Planning Documents

Prior to assessing current and past solid waste planning documents, we recommend a half-day work session to identify and prioritize the goals for the future solid waste management system. During this work session, our team will also help participants evaluate the strengths and weakness of the existing system, and facilitate a preliminary discussion on pathways to optimize the strengths and address the challenges.

After the planning meeting, our team will perform a full review of all County documents including jurisdictional programs (e.g. source reduction recycling element, household hazardous waste element, and non-disposal facility element), regional programs (e.g. siting element and summary plan), combined planning documents (e.g. JPA Agreements with cities and with commissions and committees), and Memorandums of Understanding (e.g. MOUs with cities, and with commissions and committees). During the review, SCS will document areas for improvement and additions or changes that will enhance the current documents, provide details for the solid waste plan, and update the documents to address new regulations.

Our team will use the results of this work session and the document review to assess whether existing documents and policies achieve these goals as well as their appropriateness for use in the CalRecycle, five-year planning documents. As requested in the RFP, our team will place special emphasis on organics diversion as it relates to SB 1383 legislation. As shown in our qualifications, multiple members of our team have successfully guided California communities in complying SB 1383 and our team has also designed and operated recovery systems for organics. This unique experience will allow Fresno County to successfully comply with SB 1383 requirements.

Task 1 Deliverables:

- Draft report that provides a summary of the review and assessment of the plans.
- Draft revised planning documents for review and approval.

Task 2 - Exclusive Service Area Program (ESAP) Administration Support and Assessment

Task 2a - Strategies for Meeting Compliance With AB 341 and AB 1826 and Program Implementation

Our team will review the last three years of reporting from each of the ESAP haulers to the County and from the County to CalRecycle related to the levels of participation and compliance with AB 341 and AB 1826. During this review, we will document trends and identify potential issues that we will discuss and clarify with County staff directly responsible for the preparation of the reports. If necessary, we will meet or have a call with CalRecycle's local assistance staff to discuss compliance concerns that they have. From there, the SCS team will incorporate the development of program enhancements into the strategy for meeting compliance with SB 1383 (subtask 2b below), as compliance with SB 1383 inherently results in compliance with AB 341 and AB 1826 and the commercial programs provide a good phasing approach into full SB 1383 compliance.

Task 2b. Meeting Compliance With SB 1383 and Recommendations for Program Design, Implementation, and Enforcement

Overview

SB 1383 represents the most significant change to solid waste programs and management in a generation and will require significant additional resources from the County, ESAP haulers, and generators throughout the County. SCS and HF&H partnered on California's first SB 1383 planning effort in 2018 and have since worked both together and separately to assist dozens of clients throughout the state in charting the course towards SB 1383. Our proposed process for evaluating compliance, assessing options, conducting a resource analysis of the staffing and costs required to comply, and documenting those requirements in a plan has been further developed and improved in over 30 comminutes throughout California since that first project only a year ago.

Compliance Gap Analysis

The first step in the process is to review the County's current policies, programs, infrastructure, administration, and enforcement systems to assess the level of compliance against the requirements of SB 1383. The SCS team will utilize their proprietary compliance assessment checklist to document the level of compliance against the 81 specific jurisdictional obligations contained in SB 1383. This checklist will define the compliance gaps and begin to identify the appropriate responsible party (County, hauler, facility, other) for each.

Preliminary Review of Options

Upon completion of the compliance analysis, we will meet with County staff to discuss the compliance gaps and alternative approaches to meeting those requirements. The SCS team will facilitate this discussion, providing guidance on options and approaches used or planned by other agencies similar to Fresno County. Based on the minimum program standards in SB 1383 and discussion with staff, our team will develop a set of recommended organic waste reduction programs designed to bring Fresno County into compliance with SB 1383. They will begin by developing a menu of program options and then prepare an assessment of key qualitative program considerations for each option, which will inform the resource analysis.

Task 2c. Supporting Your Staff on ESAP Related Issues

The flexible nature of this task description allows us to support the County on a wide range of issues that arise. As such, it is difficult to provide a well-considered scope and budget, but have assumed that this support would require approximately $50,000 per year and that specific task orders and budgets would be issued for work performed under this subtask. The current budget the County has dedicated for this work, does not allow for this level of support or funding. We will have $10,000 each year dedicated for assistance, and if the need arises to perform further evaluation and support, our team would like to discuss with the County next steps. We are certainly flexible with regard to the budget allocated to this task, but would prefer to have each specific task, as assigned, have a scope and budget approved through a task order with the County's project manager. This assures the County that this task will not just be an "open checkbook" and also provides clarity for both parties on the specifics of each assignment.

It is likely that the first use of this task will be to negotiate revisions to the hauling agreements to incorporate the requirements of SB 1383. Our team is currently working for CalRecycle to produce a statewide model franchise and ordinance that are compliant with SB 1383. These tools should allow for a much more cost-efficient process to arrive at those revised agreements from a business term and service description perspective. The negotiations will be further supported by out team's cost analysis of SB 1383. Our team has negotiated with every hauler serving Fresno County. They have a good working relationship with them and have successfully navigated several very challenging negotiations in places like the City of Fresno, Merced County, Tulare County, and Kern County. We are confident that we can successfully work with the group to negotiate implementation of the changes required by SB 1383.

Task 2 Deliverables:

- Draft report detailing the work conducted and assessment findings.

Task 3 - Streamline of Administration and Reporting Processes

Based on our experience and our knowledge, we believe our team's solid waste data management is the best in the industry. Our data management technology is specifically made for local governments so they can easily track their SB 1383 compliance. We consistently work with our clients on their management system to ensure they comply with regulatory requirements and can easily manage their solid waste data.

Task 3a. Assess and Recommend Revisions for Capturing SB 1383 Related Data for Reporting

SCS will review the current administrative and reporting processes for the hauler agreements (e.g. ESAP and Non-Exclusive Waste Hauler Agreements), permitted facilities and jurisdictions. From this review, we will make recommendations on how best to support the County in efficiently submitting reports and managing all of the data that is gathered. Additional assessments will be made to provide revisions of existing reporting processes that conform to the requirements of the ESAP agreements, as well as to manage new data that will be collected and required under SB 1383.

As part of the evaluation, our team will assist with assessing the current processes for gathering data, inputting data, and ultimately reporting on data. We have seen every kind of service-level and tonnage data, as well as the countless forms and spreadsheets used by different jurisdictions for internal tracking and reporting. Every city and county has different data sources and different internal processes. Our expertise lies in identifying ways to simplify, streamline and make these processes more efficient. We frequently evaluate a range of IT solutions for customers, helping internal IT departments to identify the best third-party solutions to fulfill a requirement, and assisting in the configuration of the tools to meet their needs. This type of overall assessment by an IT expert, will assist the County in identifying not only the best reporting process, but ideas on the tools necessary for efficient and streamlined data collection and reporting.

Task 3b. IT-Based Solutions

SCS will assist County staff in the assessment in IT based solutions that will enhance the disposal and diversion reporting program, identify efficiencies for tracking tonnage, service fees and surcharges, and simplifying the aggregated data. An integral part of this assessment includes Recyclist. They bring a forward-looking perspective that will help Fresno County get ahead of the game for all data collection, and more importantly SB 1383 data capture and reporting. Recyclist is laser-focused on the SB 1383 recordkeeping and reporting requirements, and has been at the forefront of educating the California municipal solid waste community about these requirements, through conference presentations and webinars. They also are in close contact with CalRecycle's SB 1383 and Local Assistance teams, who have reached out to Recyclist on a number of occasions to offer CalRecycle insight into what is feasible for jurisdictions from a data gathering, processing and reporting point of view.

Task 3 Deliverable:

- Provide administrative support, as needed, in the assessment and revision of existing "proprietary" reporting processes within the County that conform to the requirements of the ESAP Agreements.

Task 4 - Regulatory Requirements and Related County Ordinances

Our team will collaborate with Fresno County to understand the different ordinances that require review, to receive background information on how they have been used, the functionality of each, and details the County is looking for to add into the ordinances. An assessment will be performed on the current documents to identify what needs to be enhanced and what should be added to meet new requirements. The following ordinances will be reviewed:

Non-Exclusive Waste Hauling Ordinance

We will meet with representatives from County of Fresno Resources Division and Environmental Health, as well as permittees, to ascertain their perspective on how the NEWHA program is working and where there are opportunities for improvement. Our team will also benchmark provisions of Fresno County's NEWHA program to other California counties. The provisions to be benchmarked include:

- Application process
- Agreement terms
- Container size
- Container labelling
- Flow control
- Reporting
- Fees
- Insurance

C&D Waste Management Ordinance and Related C&D Facility Regulations

SCS will evaluate current Cal Green standards, new requirements under the SB 1383 regulations, and all other pertinent details to assess the current C&D ordinances and provide feedback on recommended changes. Additional research will be performed to understand how the County performs certification to the local C&D recycling facilities, and how the material is designated to go to certain facilities. SCS will provide recommendations on how to enhance the C&D ordinance.

Organics Diversion Ordinances and Regulations

In October 2014 Governor Brown signed AB 1826 requiring businesses to recycle their organic and green waste on and after April 1, 2016, depending on the amount of waste they generate per week. AB 1826 is referred to as the Mandatory Organics Recycling (MOR) law. Businesses that generate four or more cubic yards of commercial solid waste per week must comply with the MOR.

To comply with MOR, businesses must select one or any combination of the following actions in order to reuse, recycle, compost, or otherwise divert commercial organic waste from disposal:

- Subscribe to an organics service with a hauler authorized to provide services for the area in which it is located; or

- Make other arrangements for the sale or donation of organic waste, including self-hauling materials to recycling facilities or composting on site.

If a business or multi-family property is located within the unincorporated areas of Fresno County and subscribes to organics services from the ESAP Hauler and is authorized to provide services in their area, the business is already in compliance with the MOR Law.

Our team will focus our efforts on reviewing ordinances for the incorporated areas in Fresno County to assess whether they require an amendment to comply with AB 1826

Other Areas as Relevant and Appropriate

As SCS reviews the different ordinances, our team will reflect back to the solid waste plan and how new ordinances might be relevant. Should a new ordinance be required, SCS will provide recommendations on what that looks like.

Task 4 Deliverable:

- Recommendations for the revision of various County ordinances related to solid waste, recycling, and organics programs that address all local, state and federal regulatory requirements.

Task 5 - Education and Outreach Programming

In our experience, recycling and related waste conservation programs are most successful when customers are not only informed, educated, and called to action, but supported in practical ways in their efforts to learn new behaviors. To achieve a waste diversion education program's specific desired outcomes requires expert-level planning and implementation performed by highly trained professionals with a passion for waste reduction, re-use, and recycling. Our SMM professionals often team with other consulting firms to design, implement, and track successful public education and engagement programs. Directed and supported by recognized industry experts and certified community based social marketing (CBSM) professionals, our outreach teams include enthusiastic and persuasive recycling professionals.

Together with JP Marketing, our objective is to support your goals to create awareness and behavior change for the target populations they seek to motivate. We will play a key role in driving the Fresno County population in general, and target segments specifically, to seek information and engage with the programs from the Department of Solid Waste. We will employ data analytics, gathered by primary and / or secondary research and behavioral economics—the study of how social, cognitive, and emotional factors impact decisions. The latter involves such tactics as writing content and delivering messages that influence choices.

Task 5a. Evaluating Current Outreach Strategies

- Kick-off meeting with client and all stakeholders to get feedback on current and past strategies
- Review existing materials
- Perform target market research
- Evaluate research and use it in the formulation of recommendation
- Agency internal team strategy meeting
- Presentation of recommendations to client

Task 5b. Providing Recommendations to Enhance Public Education

- Use information collected in above evaluation
- Agency to create a Marketing Plan to include:
  - Media strategy and budget
  - Outreach strategy (i.e. event and community opportunity recommendation)

Task 5c. Developing SB 1383 Outreach and Education Strategies

- Review SB 1383 and discuss with client and all stakeholders

- Enhance above referenced Marketing Plan to include annual education required by SB1383
- Execute strategies once approved by client

Task 5d. Developing Campaign to Reduce Recycling and Organics Contamination

- Ensure above referenced Marketing Plan includes strategies to reinforce the importance of proper waste sorting to reduce the occurrence of recycling and organics contamination

- Execute strategies once approved by client

Optional Tasks

The following tasks are not part of this scope of work or budget, or requested in the RFP, however should be considered.

SB 1383 Resource Analysis

Based on the selected programs and qualitative program considerations, HF&H will develop a resource analysis to identify the costs and staffing resources needed to implement (start-up resource requirements) and operate (ongoing resource requirements) the new policies, programs, infrastructure, administration, and enforcement required to comply with SB 1383. In order to produce resource analysis that is specifically relevant to the County's situation, HF&H will rely on any cost information available from the County (e.g. for County staffing and benchmarks around existing programs) as well as information we have in our databases regarding the operating costs of the haulers in Fresno County. In cases where County-specific data is not available, the financial and performance forecasts will benefit from HF&H's extensive database of costs and program benchmark statistics from real-world programs operating in the Central Valley.

SB 1383 Action Plan

HF&H will compile the results of the work in this task into an informative and visually interesting PowerPoint-style SB 1383 Action Plan (Action Plan). The Action Plan will be created in a concise document that identifies each recommendation, key implementation steps, and a high-level phased implementation schedule. The Action Plan will also address key operational, logistical, and organizational considerations that must be discussed in order to decide on the County's specific approach to compliance. Our objective would be to synthesize our analysis into an intuitive document and present much of this information graphically, so that it can be used to convey the plan to the Board of Supervisors and/or the public. The report will also provide more detailed appendices and implementation considerations for use by County staff to guide the implementation process.

Evaluation ESAP Program and Future Planning Program

While 2028 sounds like a long way off, it is not too early to start planning for the next generation of the franchise system. If significant changes in territories or services are required, and especially if there is a change in service providers, the County needs approximately three years to conduct an RFP process for those services, including drafting RFP and contract documents, managing the RFP process, evaluating proposals, conducting community engagement, bringing the decision to the Board for consideration, and affecting the purchase and deployment of new equipment that is required for a transition.

Prior to that three year process for the RFP, the County needs to have completed all of the design work, which may require as much as another two to three years. HF&H has a proven analytical process for working through those design issues. The process starts with gathering robust and detailed data about the customers, collection operations, programs, services, performance, tonnage, and rate/financial arrangements. This data is processed through various analytical tools like cost/benefit models, operating pro-formas, and GIS systems to help with decision-making about major issues like how to define the geographic service areas and how to structure rates. HF&H used similar processes in helping the City of Fresno plan its privatization of Commercial services and helping the City of San Jose convert an open-market commercial system with over 28 haulers into a single hauler system with separate contracts for material processing and disposal.

HF&H understand that these processes are heavily informed by the data and analysis, but are often more influenced by local infrastructure and regional practices. As such, HF&H facilitates a series of 4-6 meetings with each client to conduct a "design intake" and work through the dozens of issues, business terms, cost consequences, and compliance requirements that will ultimately shape the scope of the RFP and Franchise Agreement. This results in a process design document that includes all of the elements necessary to prepare the RFP and Franchise Agreement.

At this point in the design process, it is important to get buy-in from executive management, elected officials, and stakeholders. This is done by summarizing the design document into an attractive and easy-to-understand presentation that can be used by the consultant and/or County staff to brief management and Board staff and conduct stakeholder input meetings. With the input from those key stakeholders, the design and presentation are modified to present the design to the Board of Supervisors for approval and authorization to prepare and issue the RFP documents.

SCOPE OF WORK PROPOSAL REQUIREMENTS

Please find below our line-by-line response to items on page 15 of the RFP:

Capability & Qualifications

a) Explain your company's capacity to take in large amounts of information and program descriptions and extract and utilize the most necessary information.

Because of our experience working with various municipalities on their solid waste related issues, we know exactly what to look out for when going through large amounts of data. For example, in May 2019, SCS spent an 8-hour day at the Merced County Regional Waste Management Authority (MCRWMA) offices reviewing emails and other documents, in order to develop a list of CalRecycle Disposal Reporting System (DRS) reports that needed completing, prioritized by deadline. SCS was subsequently hired to assist MCRWMA with SB 1383 planning, compliance activities related to General Waste Discharge Requirements for composting operations, and completing the reports and providing additional assistance, as needed. Project work began in October, 2019 and will involve a kick-off meeting to discuss priorities for all three components of the project, including gathering relevant DRS data, completing outstanding reports, recommending improvements to tracking systems, and training new MCRWMA staff responsible for completion of future reports.

b) Demonstrate your experience working with government agencies and departments to plan and implement solid waste programs by evidence of at least three prior clients.

Operating since 1979, largely most of our experience is working with government agencies and departments. We work closely with regulators and municipalities to ensure a smooth process. As

mentioned earlier, we have worked with local, state, and federal clients to help them implement solid waste management programs. Please find additional related projects below in Table 3 on page 43.

Table 3. SCS Solid Waste Related Experience 2015-Present

Client, Location	Year	Project Description
Merced County Regional Waste Management Authority	2019 - Present	Assisting MCRWMA with the Annual Report, DRS Reporting and AB 341 and AB 1826 reporting. SCS just started a project to assist with SB 1383 planning, and managing storm water regulations for their compost facility.
City of Oceanside	2019-Present	Assisting the City in identifying potential sites with appropriate characteristics and zoning for use as a new site for composting. The scope of work includes identifying potential sites, evaluating their potential development and use for composting, identifying the permit requirements, preparing a report, and presenting the information to the City staff and City Council. (2019 to present).
City of Long Beach	2018	Assisted to perform evaluation of the costs, facility and service options associated with implementing curbside collection of source separated organics. The report includes organics cost per ton, transportation costs, and collection costs (2018).
Synagro	2018	Project Manager working with SCS staff to perform research and analysis on facilities, hauling companies, and potential feedstock generators to provide an overview of where the organic material is generated, what facility is accepting this material, the quantities of organic material potentially available, and the available capacity for organic materials for AB 1826 (2016).
Central Contra Costa Solid Waste Authority (RecycleSmart)	2016 – 2019	Member Agency Recycling Project. Commercial recycling and organics technical assistance for all member agencies.
Central Contra Costa Solid Waste Authority (RecycleSmart)	2016 – 2017	Food Waste Project. Commercial organics recycling technical assistance for all member agencies. This project is focused on working with businesses to decrease contamination in food scraps within material sent to East Bay Municipal Utility District (EBMUD).
City of Lakewood	2000 – 2016	Solid Waste Services: AB 939, AB 341 compliance; residential and commercial franchise assistance; residential and commercial recycling programs; outreach and education.

Rancho Santiago Community College District, Santa Ana	2016 – Ongoing	Solid waste, recycling, and organics services procurement.
Athens Services, Pasadena	2009 – Ongoing	City of Pasadena Third Party Diversion Audits. In a separate project, trained 100 third party field representatives to perform commercial recycling technical assistance for the City of Los Angeles new franchised services (Spring and Summer 2017).
City of Rancho Palos Verdes	2001 – 2016	AB 939, AB 341 compliance; hauler audits; residential franchise rate review; residential and commercial recycling programs; City Hall and parks recycling.
County of Placer	2015 – 2016	Organics Collection and Processing feasibility Study. Organics Recycling Plan for Eastern and Western Placer Counties: evaluate each County's waste stream and the applicability of established and emerging technologies (e.g., composting, anaerobic digestion).

Please see section B. Descriptions of any similar or related contracts on page 20 and our references form on page 13 for more detailed information on our projects.

c) Provide examples of your ability to create assessments that may include but are not limited to executive summary reports, research and survey findings, and comparative analysis.

In-depth analysis of solid waste collection operations, including assessments, summary reports, research and survey findings, and comparative analysis are important factors when creating a solid waste masterplan that will meet compliance. We have performed the following services for our municipal clients to help improve and tailor plans for each of our clients' needs.

Collection Assessments

SCS performs collection routing analyses and contracting services for residential and commercial refuse, recyclables, and compostable materials. We have completed numerous route optimization, equipment alternatives, billing methods, and bidding, contracting, and privatization assessments. We routinely conduct equipment demonstrations, recommend equipment, prepare specifications and conduct procurement bidding.

We perform organization assessments to identify opportunities for enhancing an organization's ability to maximize its cost effectiveness, waste reduction and recycling, and ability to meet long-term community needs. This includes organizational analysis and design, development of performance measures to gauge efficiency of programs and services, and evaluation of administration of personnel, physical, and financial resources, and benchmarking of operations with similarly sized operations to determine relative efficiency and opportunities for improvement. We also determine if planning strategies and objectives are appropriate, financially sound, and viable; identify causes of performance shortfalls; offer proven recommendations to reduce costs and improve productivity and services; and assist with monitoring program results. Results include improved allocation of resources, expanded and more reliable services, reduced customer complaints, lower costs, and stronger foundations for successful long-term operations and services.

Waste Assessments

The purpose of visual inspections of exterior waste containers is to identify specific materials (e.g. bottles, cans, paper, food scraps, compostable paper, etc.) that could be recycled or composted; to estimate the volume of each material category; to right-size container types, sizes, and collection frequency; and to develop information concerning purchasing habits.

We regularly find that adjustments in purchasing habits can increase the amount of materials diverted from landfills, and that additional training and practical support (more bins, improved placement, better labeling, etc.) is required to improve on-site recycling.

Diversion Assessments

Our SMM professionals can assist with diversion assessments ranging from full, countywide program analyses involving interaction with multiple haulers, to specifically targeted assessments.

Waste diversion success is dependent on the quality of a community's waste reduction, recycling, and re-use; source separation and contamination control; disposal options — landfills, recycling sites, waste conversion facilities (composting, waste-to-energy, etc.); collection and disposal practices; and recycling markets by product.

In addition to local government developing the infrastructure and resources needed for a modern-day waste collection system, key drivers of waste diversion program success include diversion awareness, education, and outreach; practical support (bins, posters, training, etc.); and, perhaps most importantly, supporting behaviors and habits that contribute to success.

Diversion Program Development

Comprehensive waste diversion programs exist in cities and counties throughout the U.S. Many are highly successful, others are generally or somewhat successful, and others are only marginally successful.

SCS maintains a national database of such programs and stays abreast of the latest successes, innovations, and creative ways municipalities across the country are optimizing the diversion of sustainable materials away from landfills. This national knowledge base, coupled with our familiarity with all existing and anticipated regulations impacting waste diversion programs throughout the U.S. informs the expert-level assistance we provide to clients looking to strengthen or re-tool their diversion programs.

Facility Feasibility Studies

In the last 30 to 40 years, like many other nations, the U.S. has moved from a smattering of bottle banks in local communities (often painted green) to an entire ecosystem of "green" industries involved in manufacturing and providing all manner of products and services — alternative energy (solar, wind, hydrothermal, etc.), building design, consulting, electric cars, energy efficiency products, organic food, recycling, zero waste lifestyles, etc., etc. The waste disposal needs of communities in practically every major metropolitan area in the U.S. are now served by a mix of composting centers, landfills, material recovery facilities (MRFs), transfer stations, organics processing plants, recycling centers, waste-to-energy facilities, and even hybrid versions of the above.

Local government agencies must balance the long-term environmental and economic benefits of establishing these facilities with the often significant capital expenditure needed to build, integrate, and maintain them, while also securing the "buy-in" needed from their residents and businesses for these facilities to become successful ventures. SCS has a deep pedigree in assisting municipalities and developers to closely examine all facets of solid waste facilities under consideration for construction.

Prepare Implementation Schedules

Accurately estimating the time needed to implement any new program or initiative and then implementing the program or initiative on schedule depends on having a full understanding of the factors that may impact the implementation schedule, knowledge of relevant best practices and implementation efficiencies, timely and professional communication between all parties, and the technical and management acumen to overcome schedule challenges as expeditiously as possible when they arise. We know schedule adherence is always important and sometimes critically so. Therefore, we are especially focused when assisting clients with this type of service.

Rate Analysis

SCS regularly performs rate studies to help answer questions such as, "Are your solid waste collection rates too low?" Too high, or just about right for your city/county/jurisdiction?" "How are you sure?"

With the cost of providing solid waste collection services rising, it is more important than ever to closely track rate information and benchmarks. SCS provides services that make sense of current solid waste operations and existing rates, while helping develop tailored long-term financial models that inform decision-making and financial planning for each client's unique situation.

Most importantly, a well-planned and detailed rate analysis can be used to measure the revenues needed to provide the desired levels of service, while also helping establish fair, equitable, stable, and defensible solid waste user rates.

Methodology

We spearheaded the first national methodology for conducting waste composition studies for the EPA.

This same methodology was subsequently used as the basis for the ASTM Standard D5231-92 (1990,'94, '98) – "Standard Test Method for Determination of the Composition of Unprocessed Municipal Solid Waste," which is widely recognized as the national standard.

We are methodical when it comes to our assessments, executive summary reports, research and survey findings and comparative analysis. We continuously seek improvement within our own processes and field.

d) Describe your aptitude to produce a practical comprehensive integrated waste management plan based on research and anticipated future regulations.

An example where we have produced a solid waste plan based on our research and anticipation for future regulations was for County of Placer where we provided an evaluation of alternatives available

for collecting, hauling, and processing food waste in the eastern portion of Placer County (Tahoe Area). The driver behind the study was the state law (AB 1826), which requires communities to divert organic waste from landfills, and the development of an organics management program by January 1, 2016.

The evaluation included the following steps:

- Model the waste characterization to estimate and project the types and quantities of organic material generated in the region.
- Identify site constraints and criteria for consideration when evaluating and deciding on a new organics processing technology.
- Evaluate site location options and develop a pro/con matrix.
- Research potential technologies, and score and develop a list of viable options.
- Assess feedstock and product markets.
- Identify permitting requirements and regulations.
- Develop a cost model to assist with the evaluation.
- Develop an Organics Management Plan.

Based on the results of the evaluation, scoring and ranking, and the project team's experience working on similar projects, recommendations were made on the organics processing technology that best meets the County's goals and requirements.

Another example was when SCS Engineers and HF&H worked together in December 2017 to analyze current solid waste programs for Central Contra Costa Solid Waste Authority's (dba RecycleSmart) and develop a menu of waste management options with respect to SB 1383. Although the SB 1383 regulations were in the early draft stages at this time, SCS and HF&H conducted extensive research to gain insight into the anticipated requirements. SCS and HF&H compiled key program statistics in the RecycleSmart service area to provide a snap shot summary of current organics program efforts, estimated organics disposal and processing capacity available for organics material, reviewed food waste reduction and rescue programs, and made recommendations on changes or additions to organics diversion programs, and recommendations for metrics, reporting and monitoring for the Authority to comply with the new SB 1383 regulations.

e) Describe your experience assessing and recommending new and revised jurisdictional ordinances.

As mentioned above, we have performed various assessments in order to help our clients meet regulatory requirements. Based on our experience, we create assessments by collecting all data and assessing where we see there are gaps. We then ensure to communicate with the regulatory agencies to ensure compliance. Also, because of our working relationships with regulatory agencies, we understand exactly what it means to meet compliance. An example of complex revised jurisdictional ordinances, we worked with Hamilton County to develop a solid waste management plan where there are 52 municipalities. After presenting our solid waste management plan, we received 100 percent approval.

f) Describe your knowledge or awareness of the issues associated with providing the services proposed and knowledge of the laws, regulations, statutes and effective principles required to address the tasks?

Through a combination of client and industry advocacy, active participation in and sponsorship of industry associations, forums and seminars, as well as high quality project work that is both directly and indirectly reviewed by regulators and policy makers, SCS helps shape and implement policies in the industries we specialize in (e.g. solid waste, organics management, waste-to-energy conversion, ambient air tracer sciences, etc.).

Programs designed to maintain regulatory compliance, boost operational efficiencies, and accomplish specific objectives are often a component of a larger strategic plan and budget. Smart program development must take these factors into consideration, as well as a program's integration and compatibility with associated programs, the intelligent application of technology, and the practicality of implementation based on what is known and what is anticipated. The introduction of new regulations can often illuminate compliance gaps that may or may not have existed previously, and create a need to thoroughly re-assess programs, up to and including revising Municipal Codes.

A core service offering of SCS's SMM practice, diversion analysis and planning is an ever-increasing responsibility for municipalities and businesses involved in the collection, disposal, and management of waste. **Because the SCS Team has leadership roles in organizations such as the Solid Waste Association of North America (SWANA), American Public Works Association (APWA), California Resource Recovery Association (CRRA), the U.S. Composting Council, and long-standing relationships with management and staff at CalRecycle, we are at the forefront of emerging solid waste regulatory and technology trends, as well as best practices.** In addition, we have helped cities, counties, and national governments throughout the world deploy or adapt these technologies, policies, and best practices for their local conditions. Finally, because SCS is an engineering firm, we are frequently contracted by technology developers, government officials, and financial investors to conduct due diligence on the technical and financial feasibility of innovative, waste management technologies.

Multiple new laws have been introduced in the past 20 years concerning waste diversion, particularly in California, primary of which are:

- **AB 32 (California Global Warming Solutions Act of 2006)** – focuses on significantly reducing greenhouse gas (GHG) emissions. A pioneering national effort to address climate change, AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020 – a reduction of approximately 15% based on current projections.

- **AB 341** – states the policy goal of the state of California is that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by the year 2020.

- **AB 1826** – requires businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units (note: multifamily dwellings are not required to have a food waste diversion program). If statewide disposal of organic waste in 2020 is determined not to have reduced from 2014 levels by 50%, then a new level of mandatory commercial recycling will impact a greater number of businesses.

- **SB 1383** – requires states to reduce from 2014 levels organics in their landfills by 50% by 2020 and 75% by 2025. The law also requires that no less than 20% of disposed edible food be recovered for human consumption by 2025.

Additional California laws enacted in recent years include:

- **AB 1045** – requires state entities to work together for the development and deployment of composting.

- **AB 876** – requires local governments to plan for the building of sufficient composting and anaerobic digestion infrastructure in their jurisdictions to address organics processing for at least a 15-year period.

- **AB 199** – creates a sales-and-use tax exemption for businesses on purchases of equipment used for recycling and composting, as well as equipment that processes recycled materials. Businesses may apply for the exemption with the California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA), which provides similar exemptions for sustainable energy and transportation purchases with the goal of reducing greenhouse gas emissions.

- **AB 888** – ensures personal care products will be formulated with environmentally-safe alternatives to the trillions of tiny plastic microbeads that have ended up in rivers, lakes and oceans, which are ingested by fish and other wildlife.

SCS offers clients comprehensive support in current state assessments and desired future state planning and implementation.

In addition, HFH was selected by CalRecycle (formerly the California Integrated Waste Management Board) to determine the cost of mandatory commercial recycling in California largely based on the information contained in this database because no other consulting firm could offer access to the same type of detailed operational and cost data and prior attempts by other firms to collect this data from the industry were unsuccessful.

g) Does the CONSULTANT and their proposed Project Manager and Main Staff have at least five (5) years of experience in directly relatable services to the "Scope of Work" for government entities and can show at least three (3) project examples of such?

Our team has Task Leaders with at least five years of experience relating to Solid Waste Planning. For more details on their projects and experience, please see capsules on page 22 or full resumes in Appendix A – Resumes on page A-1.

h) Describe your experience in the creation of joint power agreements, memorandums of understanding, and contracts within the solid waste industry.

We are experienced in developing relationships and providing skills and assistance to support client staff. We provide expertise in planning programs and policies; developing and negotiating collection processing and disposal agreements, conducting compensation and rate adjustments, conducting performance reviews, and more. Our extensive JPA experience better informs us of issues and concerns that are unique in JPAs; how JPAs have handled different program preferences and cost allocations between Member Agencies; when and how Member Agencies have been involved in the

decision-making process; and understanding the complexities of the issues well enough to be able to explain them simply to the Board, especially newer Board members.

An example of our experience includes City of Rancho Palos Verdes where we represented the City at a local JPA meeting. As mentioned in our project profiles, we have also worked with South Bayside Waste Management Authority (dba RethinkWaste), a joint powers authority to twelve public agencies in San Mateo County. We have also worked with RecycleMore, another JPA that is responsible for legislative compliance on behalf of its member agencies. Five member agencies hold exclusive franchise agreements with Republic Services, Inc. (Republic). One member agency holds an exclusive franchise agreement for residential service with a small collection company that only serves that city.

Education/Outreach Development

a) Describe your experience evaluating education/outreach materials and strategies specific to solid waste collection and material diversion programs, including but not limited to organics.

SCS has reviewed outreach programs and JP Marketing has had the opportunity to work with several Fresno County and city departments and related partners. They include the Fresno County Department of Public Health, the Fresno County Department of Behavioral Health, City of Fresno Department of Public Utilities, City of Fresno Transportation Department and the Fresno Community Health Improvement Partnership (FCHIP). In all cases, their contracts kick-off with an all-stakeholders meeting at which an evaluation of objectives and an audit of assets and resources takes place.

In some cases, JP's contracts allow for the execution of research that provides valuable insights as to where the client is today and where it needs to be to ensure messages resonate with target audiences and create desired behavior changes. This research is crafted to ensure procured data is relevant and applicable to the objectives. For example, to measure City of Fresno resident's attitudes regarding the Department of Public Utilities, they used their proprietary quantitative research tool MMAPS® (www.mmapsresearch.com) which quickly provided quantitative data for developing campaign messaging and media. In another example, to gain deep insights into perceptions that influence behavior change, they conducted multiple target audience qualitative focus groups for the Fresno County Department of Behavioral Health, securing unique and powerful feedback on sensitive topics such as addiction and suicide.

The key to any evaluation is the quality of the questions. To ask good questions requires a quality understanding of the topic at hand. JP Marketing currently handles two contracts for the California Department of Food & Agriculture (State Organics Program and Inspection Service Division Food Waste Initiative) both of which address issues of food waste and dialogue surrounding compliance with SB 1383. Furthermore, their work with the City of Fresno Department of Public Utilities Solid Waste Division is also creating a knowledge base for JP Marketing on this topic that can inform their work for this contract.

The City of Fresno Department of Public Utilities (FCDPU) has three divisions in addition to the administrative team. These divisions include Solid Waste, Water and Wastewater. While there is some similarity in objectives, there is an opportunity to provide synergistic messaging to communities throughout Fresno County while carefully differentiating Fresno County Department of Public Works from Fresno City Department of Public Utilities.

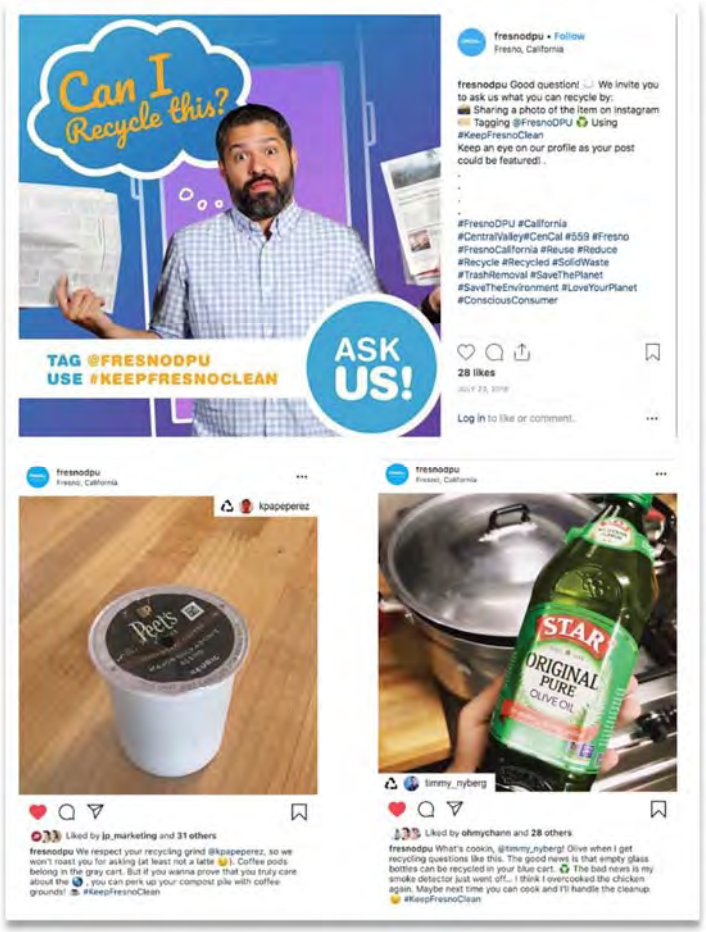
Improving a community takes many integrated efforts, so JP Marketing's knowledge of Fresno City Department of Public Utilities and our Fresno County government clients will bring insights to your

contract while ensuring your branding and voice is unique to Fresno County. Below in section b) on page 50 is an overview of our most recent campaigns with the FCDPU Solid Waste Division.

b) Provide a sample portfolio of previous education/outreach materials.

Objective: Public information program for the Solid Waste Management Division

The Solid Waste Management Division is responsible for the collection of municipal solid waste, recyclables, green waste, and Operation Clean Up from residential customers. Our goals for the division are to continue to increase residential understanding, engagement and behavior change.



The public information campaigns JP has developed, in conjunction with the department, have worked to educate the community on proper recycling methods, source separation in Operation Clean Up, contamination prevention, and environmental protection issues focusing on the following items:

- Contamination of Recycling and Green Waste
- Household Hazardous Waste
- E-Waste (Electronics Recycling)
- Battery Recycling
- Fluorescent Tube Recycling
- Illegal Dumping
- Fats, Oils & Grease Disposal
- Used Oil Recycling
- Municipal Codes

Through our multi-media and multi-cultural campaigns, JP and the Solid Waste Department are able to engage with Fresno residents with an educational and proactive approach to create a lasting impact on Fresno's communities.

For additional sample work, please see Appendix D - Outreach Sample Work on page D-1.

c) Describe your experience assessing the needs of a community in regards to finding the best messaging and strongest communication plan.

In 2019, SCS along with Action Research and Gigantic Idea Studios, began research and design of a household food waste prevention program with Santa Clara County's Recycling and Waste Reduction Division. The goal of this project is to reduce household food waste in Santa Clara County by using a community-based social marketing (CBSM) framework to effect behavior change by developing recommended strategies and tailoring existing outreach materials.

CBSM is a best practice method to achieve lasting, quantifiable behavior change that meets market transformation goals. It offers a proven, research and metrics- based alternative to traditional education campaigns (McKenzie-Mohr, 1996; 1999; 2000; 2011).

CBSM is based upon research in the social sciences that demonstrates that behavior change is often most effectively achieved through initiatives delivered at the community level that focus on removing barriers to an activity while simultaneously enhancing the activity's benefits.

CBSM brings together knowledge from the field of social marketing with a variety of behavior change "tools" drawn from social psychology, environmental psychology, and other social sciences. CBSM involves five steps:

1. Selecting which behaviors to target.
2. Identifying the barriers and benefits to the selected behavior.
3. Developing a strategy that reduces the barriers and increases the benefits to the behavior.
4. Piloting the strategy.
5. Broad scale implementation, replicable outreach strategies, and ongoing evaluation.

SCS reviewed Santa Clara County's existing baseline food waste data including waste characterization studies and route audits. SCS also reviewed current outreach campaigns; such as, education about proper sorting for recycling, recycling food scraps and food-soiled paper, and proper disposal of household hazardous waste. Together, with the Santa Clara County subcommittee, we prioritized the target behaviors most likely to prevent food waste in Santa Clara County to focus on for the remainder of the project tasks. To determine barriers and benefits, SCS conducted a supplemental review of relevant research literature and case studies before conducting in-person residential surveys. The National Research Defense Council (NRDC) is now collaborating with SCS by cross-sharing data from their Food Matters campaign for comparison to Santa Clara County's research findings.

SCS is now in the process of designing and implementing a pilot program to measure the impact of outreach materials on the reduction of edible organics in the residential waste stream. Specific messages and design elements will reflect the benefits that emerged from the research conducted with the target audiences for specific behaviors. The messages may also address internal barriers such as lack of knowledge or misperceptions. We will also investigate and address any potential for food recycling messages to undermine the food waste prevention messages. Approaches based on CBSM principles will be created to address each barrier and to emphasize the benefits of food waste reduction. Based on our experience, these may include:

- Social Norms. Communicate messages about the social approval of the target behavior or the extent to which others are engaged.

- Prompts. Provide reminders to target audiences to engage in the target behaviors.

- Commitment. Through social networks, utilize personal appeals for residents to engage in the target behaviors.

Outreach strategies will be piloted with a test and control group in January of 2020. Outreach messaging will be matched to a target audience and tested through a variety of communication channels, to find the most efficient and effective means of encouraging residential behavior change through a public campaign. SCS will deliver a comprehensive implementation plan that includes

recommended program elements (i.e., communications and outreach materials, protocols and tracking tools) and recommendations for evaluation for a scalable county-wide residential food waste prevention program.

Reporting Requirements

a) Describe your experience assisting jurisdictions comply with solid waste reporting requirements.

Our clients meet solid waste related regulatory requirements with our help by understanding the process and knowing exactly what is required. We have also built strong relationships with regulatory agencies, which gives us more insight on what exactly agencies are looking out for.

As an example, SCS provides AB 939 services to the City of San Gabriel under contract to Athens Services. As part of their franchise agreement, Athens is responsible for ensuring the City is in compliance with AB 939. Services have included:

- Gathering and analyzing Disposal Reporting System (DRS) data, including verification of generator origin, contacting and reporting illegal haulers, and submitting corrections to DRS.
- Reviewing and verifying hauler reports.
- Evaluating diversion program effectiveness, including identification of opportunities to enhance diversion.
- Meeting with CalRecycle, City, and hauler representatives
- Attending and presenting results at public meetings and hearings.

For the past 15 years, the City has met or exceeded its AB 939 diversion mandate and/or per capita disposal equivalent targets.

Additionally, we have partnered with HF&H because since the inception of AB 341 and then AB 1826, HF&H has assisted jurisdictions in the process of gathering, analyzing, verifying, and reconciling customer participation data to ensure that accurate reports of participation are provided to CalRecycle. In addition to the major efforts for annual AB 939 reporting, HF&H has supported many agencies with the disposal modifications process with CalRecycle.

b) Describe your experience developing and supporting reporting forms and processes.

Developing and supporting reporting forms and processes are important factors when meeting compliance, we have helped our clients meet compliance based on our experience and our relationships with regulators. For example, we helped the City of El Segundo to meet CalRecycle compliance and evaluate their options for its future solid waste system by reviewing all of the City's documents. As part of the initiation process and reviewing the documents, we met with CalRecycle to understand the deficiencies cited in the JCU. Following the meetings with City staff and CalRecycle staff -- we prepared a memo detailing outcomes and next steps.

In addition to our own process, HF&H has contract development and negotiations process in over 100 California communities. They have designed and drafted reporting requirements from haulers designed to help jurisdictions document and monitor their operations and regulatory compliance. In

addition, HF&H manages the franchise agreements for over 20 agencies in California, so they receive the hauler reports on a regular basis and are responsible for assessing the accuracy and integrity of those reports and conveying them to clients. In certain cases, this includes working with the hauler (and their software companies) to develop custom reporting and data mapping to resolve issues like reporting the difference between accounts and containers in service (which often vary because of the number of containers at a given site).

c) Describe your experience in researching, assessing and recommending reporting software programs.

Through our experience working with various municipalities and our subcontractors, attending conferences, and following industry news we have found only the Recyclist database to be sufficiently comprehensive and secure to meet the reporting requirements of SB 1383. Recyclist provides an outreach tracker tool that allows field staff to record outreach activities performed, waste assessment reports, compliance status, and service levels. Additionally, Recyclist aggregates data into a customized summary that updates in real-time based on outreach activities. SCS uses the Recyclist for technical assistance records, data management and reporting in other service areas including RecycleSmart, City of Alameda, and most recently City of Oceanside.

For the City of Alameda, SCS worked with Recyclist to customize the database to track the outreach provided to complex multi-family and commercial waste generators. As an example of a complex business property, the Alameda Landing shopping center contains over 30 tenant businesses including Target and Safeway. ACI provided SCS staff remote access to their customer database, Tower, so SCS staff could access service level information, outreach history, and contact information. However, this database is not accessible from the field, does not contain detailed information about backhauling, site visit activities, or source reduction information.

Recyclist also provides an outreach tracker tool that allows field staff to record outreach activities performed, waste assessment reports, compliance status, and service levels. Throughout the project, all team members conferred with each other and the Recyclist database to provide updates, reduce overlap, and avoid multiple staff visiting the same generator without coordination. Recyclist was programed to track the “parent” and tenant relationships for each generator, so SCS and City staff were able to review individual tenant information, as well as collective information for the entire property. The database was further expanded to host a waste assessment report used to track each generator’s waste management practices and service levels. Data about backhauling practices can also be measured using the waste assessment reports. Recyclist also added a portal to collect data from visual audits and roll-off container tonnages. Lastly, unique to Alameda, Recyclist added a tracker for food ware ordinance compliance reviews and enforcement. Throughout the project, all team members conferred with each other and the Recyclist database to provide updates, reduce overlap, and avoid multiple staff visiting the same generator without coordination. **This database is now the most comprehensive aggregation of solid waste program data and outreach history for both commercial and multi-family properties in Alameda.**

Solid Waste Diversion

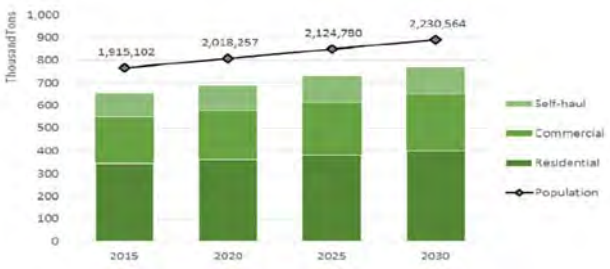
a) Demonstrate how the CONSULTANT will address the requirements of SB 1383 and provide a potential organics diversion program model that is effective in addressing current and anticipated organics diversion requirements.

Based on our experience when addressing the requirements of SB 1383, we have found that each project and client has specific needs. No one solid waste plan fits all. We do not use templates when

addressing solid waste concerns. Our team approach includes getting all the information we can from our client, finding holes within the current solid waste plan based on our team's cross-discipline expertise, and developing a plan that addresses both the current situation and our client's concerns and needs.

For example, Santa Clara County sought to assess current and potential capacity for organics diversion that would be processed under all existing and future applicable solid waste and organics diversion legislation, including AB 341, AB 1826, AB 939, AB 876, AB 199, AB 1045, and SB 1383. The County requested assistance to conduct a detailed study of waste reduction and infrastructure alternatives, including anaerobic digestion, small scale in-vessel composting, backyard composting, grass-cycling, food rescue, and other hitherto unexplored viable alternatives that would support increased composting and organics diversion over the next 15 years. Project work was from January 2017 to December 2017.

We achieved the following milestones for the County during this project:



Our team analyzed the organics tonnage projections and capacity estimates to understand the availability of future organics processing.

- Documented current and future capacity at all major facilities within and in close proximity to the greater Santa Clara County region, including the practical steps each will need to take to accommodate increased operations.

- Evaluated additional composting capacity within residential, education, farming, and other public service communities within the county; identified and discussed emerging technologies, backyard composting capacity, current and future food waste reduction projects, and the prevalence of organics backhauling.

- Provided recommendations on next steps for attaining compliance with AB 341, AB 1826 and SB 1383, and how recommendations fit into the EPA food waste hierarchy, the markets for end-products, greenhouse gas emission reduction and State regulations.

- Provided report findings in accordance with the County's intent to include in submission in an annual report to CalRecycle for AB 876 reporting purposes.

b) Demonstrate your experience in the implementation of diversion programs in jurisdictions that do and do not currently have jurisdiction wide diversion programs in place.

1. In October 2017, the City of Santa Clara wanted to create and implement a new residential organics collection program from scratch to improve their diversion goals. SCS managed technical assistance, data tracking, and program assessment analysis for the City's Pilot Residential Food Scraps Recycling program.

2. In 2005, SCS performed the first Statewide Waste Characterization Study undertaken by the State of California. SCS helped designed and execute the study, and based on dada received from 400 participating businesses throughout the state, established diversion rates for 10 different generator groups (as a subcontractor to Cascadia Consulting Group, San Jose, CA).

3. In 2001, SCS studied the feasibility of a diaper recycling for the City of Santa Clarita, CA- the first study of its kind in California.

4. In 2000, SCS designed one of the first e-waste collection events in California (for the City of Lakewood, CA).

5. In 1997, SCS wrote the Environmental Protection Agency's (EPS's) national protocol for sorting municipal solid waste.

6. In 1992, SCS designed the first all-new, state-of-the-art materials recovery facility (MRF) in the Stata of Florida. (Built for the Ready Creek Improvement District, the MRF served Walt Disney World in Orlando, Florida).

More recently, we have implemented diversion programs for RecycleSmart/Alameda where we established curbside commercial organics. In addition to our project profiles and references, we have also completed solid waste diversion programs for Fullerton, Santiago College, City of Lakewood, and even in Honolulu.

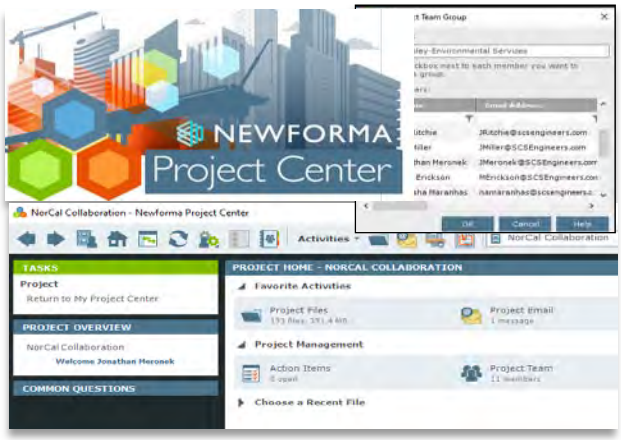
Management & Administration

a) Demonstrate your ability to annually develop and submit a project management timeline specifying deliverables, responsible parties, and completion dates and ability to update the timeline quarterly.

We save our clients time and money by embracing value consulting principles, which means we proactively strive to find opportunities for efficiency in our project work.

Embracing the principle of continuous improvement, SCS also benchmarks all of our projects for overall client satisfaction by assessing our own quality, timeliness of deliverables, and responsiveness. We proactively seek feedback from you during (and after) project completion. As mentioned above, clear and regular communication at the outset of the project maximizes overall project efficiencies and successes. If an adjustment needs to be made, we will consult you immediately as soon as we can and make the adjustment upon your approval.

SCS uses Newforma Project Center (Newforma) to aid project management. Newforma is an easy-to-use repository that streamlines the exchange of information and reports between all parties involved in a project. If you desire, a unique Newforma Project Center workspace can be established for this project at no cost to you.



Time and schedule management will be controlled through use of Microsoft Outlook.

b) Describe your experience at delivering monthly status reports, on all project tasks in a timely manner and within the customer's requirements.

We customize communication plans for each project we work on because we believe that is how we set up for success. The communication plan details contact information for all key project staff, days/times of availability, the best methods of contacting you, and how often you would like to set up status updates. The communication plan is established at the project kick-off meeting.

We follow a highly collaborative closed loop communication process to ensure projects start, progress, and conclude in accordance with our clients' expectations. We will agree on major project milestones in the kick-off meeting and benchmark your expectations for each of those milestones. Emphasis will be placed on frequent communication during the early weeks and months of project work to ensure the project framework is clearly established and agreed to. While our communication plan will be established by all parties, we are flexible and can accommodate changes and adjustments as needed.

c) Describe your experience with providing a monthly invoice no later than 30 days after the end of the previous month, including all approved project expenses and related backup documentation (such as work orders, invoices and receipts).

SCS has several dedicated accounting teams that handle monthly invoices which include approved work orders, invoices, and receipts.

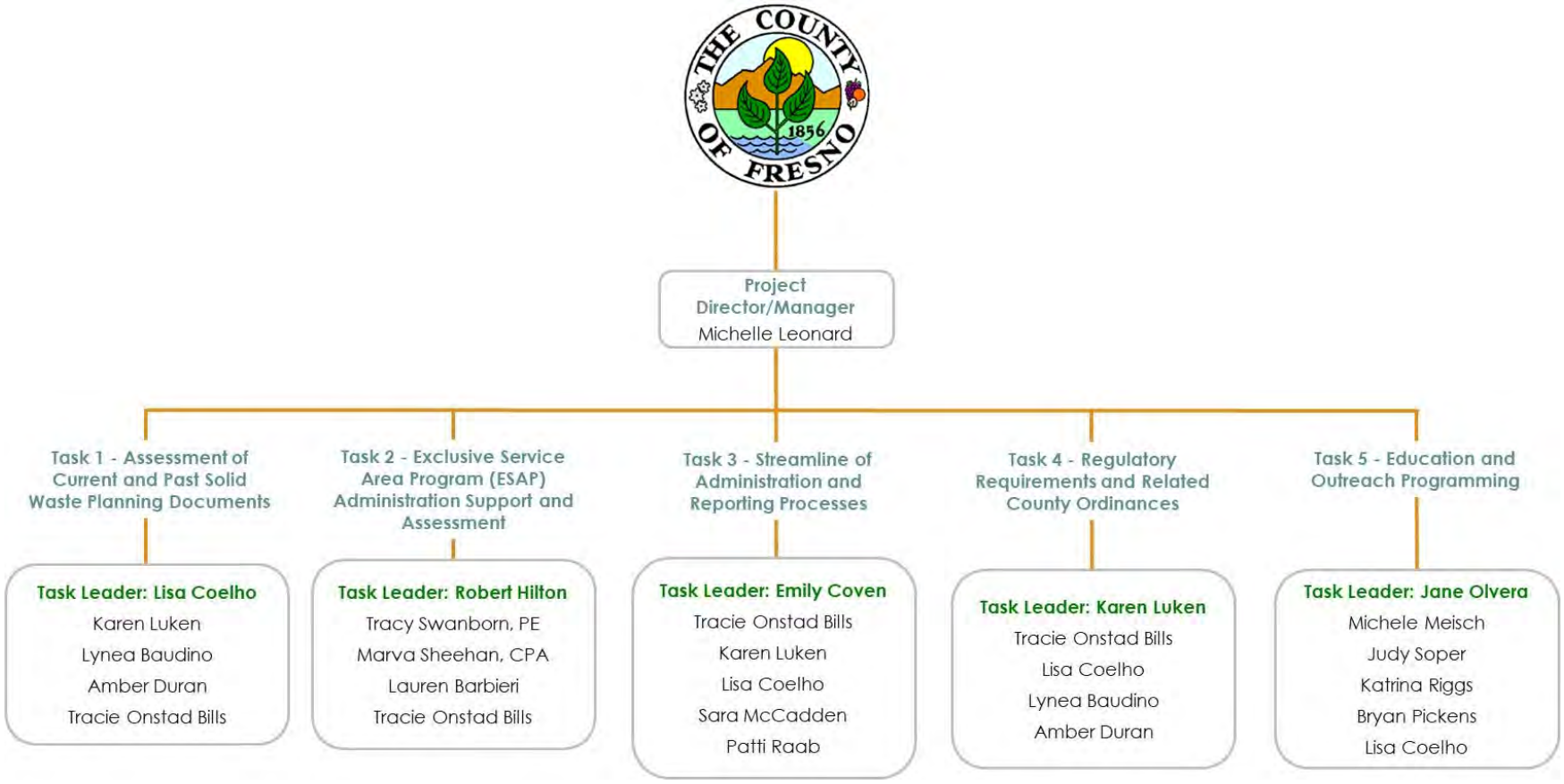
When our project manager receives an approved work order, we immediately submit the work order internally and begin the task. Once the task is complete, we provide an invoice within 30 days after completion.

All accounting backup documents are scanned and kept for four years. Original documents are kept for one-year and destroyed at the end of each fiscal year. Contract documents are kept permanently

d) The CONSULTANT shall provide an organizational plan and management structure for overseeing the proposed services.

Please see our organization chart below in Table 4 on page 59.

Table 4. Team Organization Chart



e) The CONSULTANT shall provide its organizational philosophy and goals.

Our vision is to create value and success for our clients in solving their solid waste and environmentally driven challenges. We believe client success drives our success.

Our mission is to:

- Adopt our clients' environmental challenges as our own.
- Promote a sustainable environment through innovation and the creative application of technology and management strategies.

Our values are to:

- Provide superior client service that meets or exceeds our clients' expectations.
- Hold ourselves accountable to our Vision, Mission, and Values.
- Achieve teamwork and cooperation. Require civility inside and outside of SCS.
- Foster employee welfare, with both professional and personal growth.
- Offer practical, value-added solutions to our clients' environmental challenges.
- Achieve technical excellence and quality in all that we do.
- Promote professionalism and integrity. Be honest, fair, and ethical.
- Be entrepreneurial, innovative, and creative. Reward performance.
- Promote broad employee ownership of SCS.
- Support our profession, our industry, and our communities.
- Hold paramount the safety and health of employees, our clients, and the public.

Our key service commitments are:

- **Health & Safety** is always our highest priority. This commitment is evidenced by our national Experience Modification Rate of 0.98.
- **Responsiveness**. In today's business climate inquiries and messages need to be responded to within hours, not days. We do our best to meet this expectation, no matter how busy we are.
- **"Value Engineering"** means proactively seeking ways to save our clients' time and money. This fundamental operating philosophy has served SCS well for 49 years and will continue to be the model that underpins all of the services we provide. When our project managers focus on adding value rather than maximizing SCS's bottom line, we build trust and long-term relationships.
- **"Ownership Makes a Difference**." As an employee-owned company since 1986, our project managers are empowered to deliver solutions that make our clients' projects successful. We are not subject to the sometimes conflicting objective to maximize shareholder value that large public companies must adhere to.
- **Client Success Initiative**. Launched in 2017, this companywide commitment to understanding our client's needs on an even deeper level informs our approach to project work and is the foundation upon which we will continue to thrive and grow. "When our clients' succeed, we succeed."

- **Regular, open, two-way communication** and the sharing of expertise between consultant and client produces better information, better decision-making, and better results every time. We believe strongly in a collaborative approach to understanding each project's unique challenges and delivering customized, practical, cost-effective solutions.

- **Fully understanding expectations before and during project work greatly influences project success**. We know how important it is to our clients that we provide accurate quotes and proposals before being awarded a project. Our commitment in this area is evidenced by our record of submitting few, if any, change orders on the projects we are awarded.

- **Quality Control**. SCS's success is due, in large part, to a constant commitment to quality, client satisfaction, and continuous improvement in our internal quality control systems and procedures. An update to our Quality Management Plan was completed in 2019 and is currently being used by all project managers.

- **Technology**, when applied wisely, can significantly improve project efficiencies and reduce client costs. SCS's industry-leading suite of data management technologies, SCSeToolsTM, currently includes three major modules: SCS DataServices®; SCS MobileToolsTM; and SCS Remote Monitoring and Control®, and is constantly evolving to meet our clients' needs for easier, better, less-expensive ways to maintain regulatory compliance.

- **Strong project management** is accomplished by embracing the above service commitments and through skilled use of Microsoft Office, Newforma Project Center and Google Docs (file sharing), Deltek Vision (internal project management), and many other project-specific software, as appropriate.

C. When reports or other documentation are to be a part of the proposal a sample of each must be submitted. Reports should be referenced in this section and submitted in a separate section entitled "REPORTS."

Please see full sample reports in Appendix E - Sample Reports on page E-1.

D. A complete description of any alternative solutions or approaches to accomplishing the desired results.

XII. We have provided all recommendations in Scope of Work.

XIII. COST PROPOSAL

Budgetary Estimate - Fresno County
Solid Waste Planning

DESCRIPTION			Task 1	ESAP Administration Support and Assessment			Streamline of Administration and Reporting Processes		Task 4	Education & Outreach Programming				Task 6	Project Total	
			Year 1 - Assessment Solid Waste Plans	Task 2A Year 1-Strategies for AB 341 and AB 1826 Compliance	Task 2B Year 1 -SB 1383 Recommendations Compliance	Task 2C Year 1-4; ESAP Support	Task 3A Year 2 SB 1383 Reporting	Task 3B Year 2 IT Based Solutions	Task 4 Year 2 - Regulatory Requirements / Ordinances	Task 5A Year 2 - Evaluate Outreach Strategies	Task 5B Year 2 - Public Education Recommendations	Task 5C Year 2 SB 1383 Outreach	Task 5D Year 2 - Reduce Contamination Campaign	Kick of Meeting & Project Management		
Role	**Name**	**Rate $/Hour**	**Hours**	**Hours**	**Hours**	**Hours**	**Hours**	**Hours**	**Hours**	**Hours**	**Hours**	**Hours**	**Hours**	**Hours**	**Hours**	**Cost**
SCS																
Project Director / Manager	Leonard	$275	40	12	8	8	4	4	24	8	4	4	4	24	144	$39,600
Senior Staff Professional	Bills	$230	4	12	8	8							4	4	36	$8,280
Staff Professional	Coelho	$170		12	8	8	16	8		12	4	8	4	12	92	$15,640
Staff Professional	Duran	$140	8		4					4	4	4			24	$3,360
Staff Professional	Luken	$125	60						40					4	104	$13,000
Staff Professional	Baudino	$125	60												60	$7,500
Staff Professional	Gomez	$125							24						24	$3,000
HFH Consultants																
	Hilton	$300		4	12	40									56	$16,800
	Sheehan	$270	0	0	4	16	0	0	0	0	0	0	0	0	20	$5,400
	Swanborn	$250	0	8	24	16	0	0	0	0	0	0	0	0	48	$12,000
	Barbieri	$250	0	8	4	16	0	0	0	0	0	0	0	0	28	$7,000
Senior Analyst		$200		0	4	30									34	$6,800
Associate Analyst		$160		0	20	12									32	$5,120
Assistant Analysti		$135		12	25	12									49	$6,615
Administrative Staff		$115		6	4	12									22	$2,530
Recyclist																
	Coven	$225	0	0	0	0	15	15	0	0	0	0	0	0	30	$6,750
	McCadden	$175	0	0	0	0	15	15	0	0	0	0	0	0	30	$5,250
	Raab	$150	0	0	0	0	10	10	0	0	0	0	0	0	20	$3,000
JP Marketing																
	Olvera	$112	0	0	0	0	0	0	0	8	10	0	0	0	18	$2,016
	Meisch	$112	0	0	0	0	0	0	0	20	30	5	5	0	60	$6,720
	Soper	$94	0	0	0	0	0	0	0	40	40	8	16	0	104	$9,776
	Riggs	$94	0	0	0	0	0	0	0	20	30	16	8	0	74	$6,956
	Pickens	$94	0	0	0	0	0	0	0	20	0	8	8	0	36	$3,384
Total Labor		--	**172**	**74**	**125**	**178**	**60**	**52**	**88**	**132**	**122**	**53**	**49**	**40**	**1145**	**$196,497**
Other Direct Costs (ODCs)		**Cost $/Unit**	**Units**	**Units**	**Units**	**Units**	**Units**	**Units**	**Units**	**Units**	**Units**	**Units**	**Units**	**Units**	**Units**	**Cost**
SCS																
Airfare		$500													0	$0
Auto Rental		$120													0	$0
Auto Fuel		$30													0	$0
Auto Mileage		$0.35													0	$0
Per Diem		$50													0	$0
Lodging		$125													0	$0
Reproduction		$0.10													0	$0
Computer Processing		$4													0	$0
Dillon																
Airfare		$500	0	0	1	0	0	0	0	0	0	0	0	1	2	$1,000
Auto Rental		$120	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
Auto Fuel		$30	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
Auto Mileage		$0.35	400	400	1,600	2,500	0	0	0	0	0	0	0	1,600	6,500	$2,275
Per Diem		$50	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
Lodging		$125	0	0	1	0	0	0	0	0	0	0	0	1	2	$250
Reproduction		$0.10	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
Computer Processing		$4	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
Total ODCs		--	**$140**	**$140**	**$1,185**	**$875**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,185**	**--**	**$3,525**
Budget by Task			**$28,180**	**$15,750**	**$26,660**	**$41,515**	**$11,320**	**$9,960**	**$14,600**	**$15,456**	**$13,400**	**$6,588**	**$6,268**	**$10,325**		**$200,022**

XIV. CHECKLIST

Proposal No. 20-018 **Page 27**

CHECK LIST

This Checklist is provided to assist vendors in the preparation of their RFP response. Included are important requirements the bidder is responsible to submit with the RFP package in order to make the RFP compliant.

Check off each of the following (if applicable):

1. ✓ Signed cover page of Request for Proposal (RFP).
2. ✓ Check http://www.FresnoCountyCA.gov/departments/internal-services/purchasing/bid-opportunities for any addenda.
3. ✓ Signed cover page of each Addendum.
4. ✓ Provide a Conflict of Interest Statement.
5. ✓ Signed *Trade Secret Form* as provided with this RFP (Trade Secret Information, if provided, must be electronically submitted in a separate PDF file and marked as Confidential).
6. ✓ Signed *Criminal History Disclosure Form* as provided with this RFP.
7. ✓ Signed *Participation Form* as provided with this RFP.
8. ✓ The completed *Reference List* as provided with this RFP.
9. ✓ Indicate all of bidder exceptions to the County's requirements, conditions and specifications as stated within this RFP.
10. ✓ Bidder's proposal, in PDF format, electronically submitted to the Bid Page on Public Purchase.

Return Checklist with your RFP response

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Appendix A

Resumes

MICHELLE P. LEONARD

Education

BS – Environmental Studies (with honors), University of California, Berkeley, 1980

Professional Affiliations

Solid Waste Association of North America (SWANA), International Board Past President; Recycling and Special Waste Technical Division Past Director; Southern California Founding Chapter, Board of Directors (2009 to Present)
Past Director, Southern California Waste Management Forum
Past President, Women's Environmental Council
Appointed by the Secretary of Commerce as a Member of the Environmental Technologies Trade Advisory Committee

Professional Experience

Ms. Leonard has 35 years of experience in environmental consulting and project management, with an emphasis in solid waste management planning and facilities. She has assisted public and private sector clients in the preparation of solid waste management plans; designed and implemented waste reduction, recycling, and reuse programs; and evaluated existing programs to identify opportunities to reduce, reuse, and recycle solid waste. She has prepared plans and permits for transfer stations, material recovery facilities (MRFs), and drop-off and buy-back centers. She has a strong working knowledge of solid waste management regulations and practices, and has presented numerous successful projects to city, county, and state regulators.

Notable projects that Ms. Leonard has been involved in are described below.

Solid Waste Planning and Studies

County of Los Angeles Department of Public Works (LACDPW), County of Los Angeles Smart Business Recycling Program (Program), Los Angeles, CA. As Project Director, Ms. Leonard directed SCS's involvement with the LACDPW to meet requirements of the California Integrated Waste Management Act (IWMA) of 1989, Assembly Bill (AB) 341 Mandatory Commercial Recycling (MCR), and AB 1826 Mandatory Commercial Organics (MCO). The goal of the Program is to help businesses reduce waste and preserve landfill capacities. Objectives include assisting the LACDPW to achieve recycling and diversion while complying with state requirements. The contract included a wide variety of types of work, ranging from complex site visits to reporting, graphic design, and procurement of promotional items.

Extended Producer Responsibility (EPR) Study and White Paper. As Project Manager, Ms. Leonard managed the preparation of the EPR while comparing European, Canadian, and U.S. policies and programs for value and effectiveness. The study evaluated definitions from municipal solid waste (MSW), recycling rates, and methodologies. She compared the EPR-reported impacts in recycling within the entities.

City of Pasadena, Zero Waste Strategic Plan, Pasadena, CA. As Project Manager, Ms. Leonard evaluated existing programs, determined the objectives, performed a waste characterization study,

identified options to address the objectives, developed guiding principles, screened options for implementation, and was solely responsible for selecting the most suitable option. The project also involved the stakeholder engagement process, which included workshops and outreach efforts.

City of Santa Monica, Zero Waste Strategic Operations Plan (ZWSP), Santa Monica, CA. As Project Manager, Ms. Leonard was responsible for preparing a strategic operations plan that evaluated current conditions, and recommended policies, programs, and infrastructure to reach the City's goal of zero waste by 2030. The project included planning of a zero waste ordinance, guiding principles, waste characterization and generation projections, and review and recommendation of suitable options. The ZWSP also evaluated the impacts on the City's rate structure, and mechanisms to finance the program.

City and County of Spokane, Spokane County Solid Waste Management Plan Update, Spokane, WA. As Project Director, Ms. Leonard updated all elements of the County's solid waste plan, with particular focus on infrastructure, waste stream projections, financial impacts of alternatives, transfer system improvements, moderate risk waste, composting options, and addressing construction, demolition, and land clearing (CDL) waste options. Spokane County is home to almost 500,000 residents and is served by a solid waste system that consists of public and private operations. The Spokane Solid Waste Management System (System), a department of the City of Spokane, operates two transfer stations, a waste-to-energy plant, and collection service for city residents. The remaining city and county unincorporated areas are served by private franchised haulers who utilize the System's facilities.

City of Toledo and University of Toledo, Organic Waste Recycling CDI Recovery Facilities Feasibility Study, Toledo, OH. Ms. Leonard's responsibilities included a feasibility study to optimize operations of two permitted composting sites, and development evaluation of a new regional food scraps and organic waste management facility. In addition, she evaluated the development of the construction, demolition, and inert (CDI) materials recovery facility to recycle concrete, asphalt, and other inert materials. The project incorporated design, permitting, and environmental issues, and included a siting study to identify potential locations for facilities. Lastly, Ms. Leonard evaluated the financial aspects of the facilities' development and operations.

City of Malibu, Solid Waste System Audit, Malibu, CA. As Project Director, Ms. Lenard conducted an evaluation of the City's solid waste program to identify the strengths, weaknesses, opportunities and challenges of the existing program. She conducted an inventory of the Existing Policies and Programs, and prepared a comparison of the City's Existing Policies and Programs with industry standards and trends. SCS contacted 10 municipalities with similar demographics to Malibu to obtain information on Existing Policies and Programs in place. Relevant information, such as year adopted or implemented, affected sector, diversion impacts and/or rate, cost per capita, household or business, was compiled in a matrix format to facilitate review and evaluation by the City.

Athens Services, Third Party Diversion Study, Pasadena, CA. As Project Director, Ms. Leonard verified a third-party diversion for commercial businesses in the City of Pasadena, on behalf of the client. The project included contacting businesses to verify types and quantities of materials source reduced, recycled, composted, or diverted through programs outside of the hauler's control.

Composting Facility Conceptual Design and Costs, Athens Services, CA. As Project Director, Ms. Leonard supported the proposed development by preparing a conceptual design for a 100-acre site to handle yard debris and food scraps. The plan included the layout for receiving, processing, and storing of finished product, as well as storm water and other environmental controls. As part of the project, Ms. Leonard assisted SCS in the preparation of estimated costs for the development of the site, including site planning, buildings, and equipment.

County of Santa Cruz, Solid Waste System Business Plan (Business Plan), Santa Cruz County, AZ. As Project Director, Ms. Leonard was responsible for evaluating system costs, revenues, and liabilities over a 30-year planning period to assist the County in identifying options for the Business Plan. This included considering continued operations, privatization of operations, and sale of the assets. Ms. Leonard also incorporated into the Business Plan the County's operation of two landfills, transfer stations, and drop-off centers for recycling.

City of San Gabriel, Electronic Annual Report and Disposal Tracking, San Gabriel, CA. For over 15 years, SCS has assisted the City in the preparation of its Solid Waste Annual Report to the State of California (CalRecycle), which identifies the City's compliance with diversion mandates, program, and policy implementation. As Project Director, Ms. Leonard conducted disposal tracking for the City, which identifies disposal tonnage misallocated to the City, and reallocates it to the City of origin for disposal reporting purposes.

County of Mecklenburg, Solid Waste Management Plan (Plan), Mecklenburg County, NC. As Senior Technical Advisor, Ms. Leonard contributed to updating the County's Plan, which included the design of high diversion, reduction, reuse, and CDI policies and programs. She also assisted with the financial impact analysis, diversion estimates, and waste characterization study.

Miami-Dade County Department of Solid Waste, Solid Waste Management Master Plan, Miami-Dade County, FL. As Senior Technical Advisor, Ms. Leonard assisted in the preparation of a solid waste master plan identifying options and improvements to the solid waste system, including the collection, transfer, and processing operations. A series of public workshops and meetings were conducted to identify the preferred options for implementation over the planning period.

City of Rancho Palos Verdes, Solid Waste Programs, Rancho Palos Verdes, CA. As Project Director, Ms. Leonard provided annual solid waste management services. Her work included a series of projects intended to increase the City's diversion, including expansion of the City's multi-family recycling program. As part of the project, she conducted workshops at a number of homeowner association groups to introduce the new program, and help managers implement the recycling methods as well. She also conducted a workshop on the City's CDI recycling program for haulers and contractors, and participated in a variety of other public education and outreach programs.

City of Irvine, Zero Waste Technical Assistance, Irvine, CA. Initiated in 2004, the project's objectives were to conduct waste audits and provide information to businesses regarding recycling and waste reduction. The project was later expanded, and, as Project Director, Ms. Leonard assisted in developing the outreach efforts in educating schools, municipal facilities, the Zero Waste program for restaurants, while assisting in the preparation of a CDI ordinance, and providing her expertise in negotiations for a semi-exclusive solid waste franchise agreement and recycling programs for special events and public venues.

City of Lakewood, Solid Waste Generation Study and Solid Waste Support Services, Lakewood, CA. As Project Director, Ms. Leonard was responsible for City's environmental programs. In 2000, SCS was selected to conduct a solid waste generation study in support of a new base year modification and compliance order, in addition to providing solid waste support services. Based on the success of that project, Ms. Leonard and SCS have provided ongoing solid waste support services to the City, including disposal reporting system reviews and analysis, commercial waste audits, public education and outreach programs, applications for the Used Oil Grant Administration, preparations for annual reporting, and design and implementation of special recycling events.

California Institute of Technology (CalTech), Waste Audit and Waste Characterization Study, Pasadena, CA. As Project Manager, Ms. Leonard conducted a waste audit and waste

characterization study at CalTech to determine the types, quantities, and sources of compostables in the waste stream. She was responsible for determining if the was material suitable for incineration, including the sources and possibility of reuse of packaging in the campus waste stream. A total of 66 samples were collected from 11 generator groups, and sorted according to 27 different material types. The results of the study were also used to evaluate potential costs and savings from the implementation of new and/or expanded recycling programs.

County of Orange, Disposal Agreement Rate Model Analysis, Anaheim, CA. As Project Director, Ms. Leonard performed an analysis of the landfill rate model prepared by Orange County, CA. The 34 cities in Orange County each had a disposal agreement with the County to dispose of all city waste at the three County-owned landfills for a set tipping fee. The existing 10-year agreement expired in 2009, and the County proposed a new tipping fee based on a financial model. Ms. Leonard identified and advised the Waste Management Committee of the Orange County City Managers Organization on contributing factors or issues that could have enabled the cities to constructively negotiate contract terms. This included a contract rate that could be more favorable to the cities, resulting in assisting the cities in analyzing the relative merits of alternative fee structures (i.e., flat fee versus adjusted annually based on inflation), and designing a policy and methodology for the County to declare a dividend (or rate reduction) in the event of actual expenses being less than projected or actual tonnage quantities were greater than expected.

City of Santa Maria, Collection and Disposal Rate Study, Santa Maria, CA. As Project Director, Ms. Leonard reviewed the existing collection and disposal rates charged to residents, businesses and industrial customers. She conducted a thorough analysis of the existing rate structure based on the City's budget, operations, and financial reports. She developed a financial model utilized to estimate the appropriate rate structure for all aspects of the City's solid waste system, and the costs and revenues associated with specific system programs.

City of Redondo Beach, Solid Waste Franchise Agreement Audit, Redondo Beach, CA. As Project Director, Ms. Leonard performed an independent audit of the Solid Waste Handling Services Agreement between the City of Redondo Beach and Consolidated Disposal Service (Consolidated). The project included reviewing background information relative to the operation of the City's solid waste system, issuing a request to Consolidated for pertinent financial and operational data and documents, while verifying supporting documentation and recalculating the AB 939, administration, and Household Hazardous Waste (HHW) fees. Ms. Leonard sampled commercial bin service accounts for testing, performed selected site inspections to document the service levels, and contacted large multi-family accounts by telephone and/or site inspections to identify any differences with the hauler's customer database. Lastly, she prepared a report documenting her findings and giving her recommendations.

City of Pasadena, Residential Collection Rate Study, Pasadena, CA. The City provided solid waste and recycling collection service to approximately 27,000 residential units (single-family residences and multi-family units) within the City's incorporated limits. A rate model was developed to enable financial performance projections of residential refuse collections for the upcoming 10-year planning period (2006 to 2015), and model various user rate structures to help eliminate the Refuse Collection Fund's existing negative cash balance. Based on data and information provided by City staff, individual spreadsheets were linked to develop an overall rate model to evaluate the impact of critical City cost and program revenues areas on different potential rate options.

City of Santa Clarita, Waste Generation Study and Disposal Reporting System Review, Santa Clarita, CA. As Project Manager, Ms. Leonard was responsible for conducting a waste generation study to establish the current and potential recycling rate for the City. As part of the study, SCS completed on-site waste assessments at some of Santa Clarita's largest businesses, to identify

diversion from City programs, and other activities that divert solid waste, including recycling, composting, and source reduction. In addition, SCS completed a comprehensive review and evaluation of the City's 1999 and 2000 Disposal Reporting System (DRS) reports, after a 65,000-ton spike in disposal reported in 2000. The project included review of hauler reports to compare data with landfill records. Ms. Leonard prepared a report to the City Council presenting corrected previous errors and recommendations to avoid future discrepancies.

LACDPW, Countywide Yard Waste Program, Los Angeles, CA. As Project Manager, Ms. Leonard was responsible a 2-year effort to design, manage, and implement the Countywide Yard Waste Program. Work involved providing a broad range of public education, outreach, and training programs related to yard waste composting, worm composting, water-wise gardening, and grass recycling. The project also incorporates a statistical survey of program awareness and efficacy, in addition to evaluating and monitoring program results.

LACDPW, Recycling Program Study, Los Angeles, CA. As Project Director, Ms. Leonard was responsible for development of the ACCESS database of over 1,400 County departments and facilities in support of the County's recycling program. The information was used to identify and maintain a list of existing recycling efforts. The project also involved providing recommendations for the expansion of existing or new recycling programs for all County facilities and departments.

LACDPW, Waste Generation Study, Los Angeles, CA. As Project Director, Ms. Leonard was responsible for conducting the Los Angeles County Waste Generation Study. She oversaw preparations of the two waste generation studies for the unincorporated areas. As part of the project, a waste characterization of residential and commercial generators were also conducted. Over 1,000 surveys were distributed to residents, businesses, haulers, and facility operators to determine diversion activities throughout the County. Results from the surveys of grass recycling and organics, inert materials, materials recovery facilities and transfer stations, scrap metal and electronics were calculated to determine the optimum new base year for the County.

County of Sonoma, Solid Waste Management Alternatives Analysis, Santa Rosa, CA. As Project Manager, Ms. Leonard was responsible for evaluating solid waste management alternatives. Ms. Leonard and SCS worked with the County and a 35-member Local Task Force to identify and select alternatives for disposal of the County's waste, following closure of its landfill in 2015. The project included an analysis of the existing solid waste management system, projection of future demographics and solid waste generation, review and evaluation of alternatives, and completion of a strategy that may include options for disposal, alternative technologies, diversion programs, and policies.

TRACIE ONSTAD BILLS

Education

BA – Environmental Science, San Jose State University, 1992

Specialty Certifications

Zero Waste Principles and Practices SWANA Certification (2017)
Organics Collection SWANA Certification (2016)

Professional Affiliations

Solid Waste Association of North America – Member
SWANA Gold Rush Chapter – President
California Resource Recovery Association – Advisor, Past President
National Recycling Coalition – Member
Northern California Recycling Association – Member

Professional Experience

Ms. Bills has over 24 years of materials management experience, including working for a hauler, a county government, and a non-profit; and over 12 years with materials management consulting firms, the past 3 with SCS. She has contributed to the development of many solid waste plans, providing materials flow assessments, organics processing research and analysis, hauler customer service reviews, construction and demolition (C&D) ordinance reviews and recommendations, and recycling and organics management technical assistance to government agencies, schools, multi-family dwellings and businesses throughout Northern California. An expert in the solid waste regulatory environment, she takes pride in her ability to engage stakeholders in meaningful, action-oriented ways to drive higher levels of regulatory compliance and customer service.

A representative sampling of Ms. Bills' project management experience is provided below.

Organics Projects

Central Contra Costa Solid Waste Authority, Senate Bill 1383 Organics Planning, Walnut Creek, CA. Project Manager working with another consulting firm to analyzed current programs, compiled key program statistics to provide a snap shot summary of current organics program efforts, estimated organics disposal and processing capacity available for organics material, reviewed food waste reduction and rescue programs, and make recommendations on changes or additions to organics diversion programs, and recommendations for metrics, reporting and monitoring for the Authority to comply with the new SB 1383 regulations (2018).

City of Long Beach, Residential Organics Collection and Composting Evaluation Study, Long Beach, CA. Assisted to perform evaluation of the costs, facility and service options associated with implementing curbside collection of source separated organics. The report includes organics cost per ton, transportation costs, and collection costs (2018).

Santa Clara County, Composting Processing Capacity and Organics Diversion Study, San Jose, CA. Project Manager for a study to assess the capacity of facilities that accept organic waste for composting to comply with AB 1826 and to evaluate other on-site composting options from residents, golf courses, schools, stables, etc. (2017).

Synagro, Organics Market Research Study, Southern CA. Project Manager working with SCS staff to perform research and analysis on facilities, hauling companies, and potential feedstock generators to provide an overview of where the organic material is generated, what facility is accepting this material, the quantities of organic material potentially available, and the available capacity for organic materials for AB 1826 (2016).

Waste Management Davis Street Transfer Process Report Update for Organics Processing Facility, San Leandro, CA. Assisted with updating the Transfer Process Report to incorporate changes for the new Organics Material Recovery Facility, which included the different technologies and processes that will be included in the design (2016).

Western Placer County, Organics Recycling Management Plan, Auburn, CA. Project Manager to provide modeling characterization of business sector to identify organics volume, and AB 1826 organics management plan developed for AB 1826 (2016).

Eastern Placer County, Organics Recycling Management Plan and AB 1826 Organics Management Plan, Truckee, CA. Project Manager to provide modeling characterization of business sector to identify organics volume, research on organics processing technologies including siting and cost analysis, recommendations and AB 1826 organics management plan developed (2015 to 2016).

Los Angeles County, AB 1826 Organics Management Plan, Los Angeles, CA. Researcher to attain local information and writer to develop the County's Organics Management Plan for compliance with AB 1826 (2015).

EcoSafe, Inc., Organics Compostable Bag Study, San Francisco, CA. Project Manager leading field staff to perform physical characterization of trash, recycling, and organics containers of selected MFDs, in order to assess the success of the EcoSafe outreach program in increasing diversion, which included EcoSafe providing outreach material and free compostable bags to MFDs (2014 - with previous employer).

City of Alameda, Organics Technical Assistance, Alameda, CA. Project Manager working with outreach staff with the primary focus of increasing organics recycling at small businesses and selected MFD's (2013 to 2014 - with previous employer).

City of Fremont, Commercial Organics Analysis, Fremont, CA. Project Manager working with outreach staff to perform visual audits and survey food service businesses that have front-of-house material managed by customers in order to understand barriers and needs to provide organics recycling to these businesses (2013 to 2014 - with previous employer).

City of Union City, MFD Organics Analysis, Union City, CA. Project Manager working with outreach staff who performed visual audits and assessed MFDs for potential organics recycling services (2013 to 2014 - with previous employer).

StopWaste.Org, County Plant Debris Ban Research and Analysis, Oakland, CA. Assistance in evaluating success of local facilities to inform public of the new ban and whether the facilities complied (2009 - with previous employer).

KAREN M. LUKEN

Education

BS – Communication Arts, University of Cincinnati, 1986

Professional Affiliations

International Association of Facilitators
American Public Works Association (APWA) National Solid Waste Committee
Recycling Chairman for the U.S. Conference of Mayors
National Strategic Planning and Recycling Certification Instructor for the Solid Waste Association of North America (SWANA)
President of the SWANA Buckeye Chapter
Coordinator for SWANA's annual conference
Ohio delegate at a White House Recycling Summit
Steering committee member for the U.S State Department's Clean Climate Air Coalition

Professional Experience

Karen has almost 30 years of experience helping local communities, national governments and private businesses throughout the world reduce litter and decrease dependency on landfills by promoting a circular economy where waste becomes a resource. Karen has helped communities throughout the world achieve their pollution prevention and circular economy goals through a systematic, strategic planning process. This planning process includes establishing a baseline, characterizing the waste stream, analyzing policies and legislation, conducting cost benefit analyses, characterizing waste streams, and fostering a shared vision among stakeholders.

Relevant projects that Karen has been involved in are described below.

U.S.
City of New Braunfels, TX: Solid Waste Management Plan & Rate Study (2018-2019). As a subcontractor to SCS, conducted a needs assessment based on short-, medium- and long-term goals, and recommended strategies to achieve those goals. Strategies included implementation requirements as well as impact on landfill diversion. Also prepared a 5-year action plan.

City of Olathe, KS: Strategic Plan (2016-2018). The City contracted EESI to provide expert guidance on development of a Solid Waste Management Plan for the City. The plan will serve as a blueprint/guide for the City's solid waste programs and operations for the next 50 years.

Cuyahoga County Waste District, OH: Strategic Evaluation (2017-2018). Performed a strategic evaluation of Cuyahoga County Waste District's residential, commercial and multi-family recycling programs, organics composting, organics recovery, and education/outreach initiatives.

Ohio Waste Districts of Hamilton, Preble, Mercer, Clark, Greene, Butler, Portage, Cuyahoga, Adams-Brown, Henry, Stark-Tuscarawas-Wayne, Athens-Gallia, and Clermont: Solid Waste Management Plans (1990-Ongoing). Helped 13 districts prepare multi-year solid waste management plans to ensure sufficient, long-term disposal capacity and establish sufficient

programs to increase recycling and manage special wastes. All 13 plans were ratified by government officials, approved by the Ohio Environmental Protection Agency, and were fully implemented.

Saint Louis County, Missouri: Solid Waste Management Plan (2010). Prepared a solid waste management plan on behalf of the Saint Louis Department of Health (DOH). The plan inventoried the existing solid waste management system, assessed its strengths and weaknesses, and identified strategies to optimize the performance of the system's individual components. Karen also designed an outreach process and was retained to solicit related concerns from County residents, businesses and government officials.

Kaua'i and Oahu Counties, Hawaii: Solid Waste Management Plans (2008). Collaborated with both Counties to update their Integrated Solid Waste Management Plans. Activities included:

- Coordinating public meetings, chairing workshops with the mayor and County council members, and facilitating a solid waste advisory committee.
- Characterizing existing waste management infrastructure and future capacity needs.
- Identifying pathways to decrease pollution from plastics, increase the recovery of recyclables and organics, and improve market conditions.
- Evaluating the technical and financial feasibility of converting waste into energy.
- Formulating a process to site solid waste facilities.
- Modelling a system cost and rate analysis.
- Preparing an implementation action plan.

International

Saint Lucia, West Indies: National Waste Strategy (2018). Worked with the island nation of Saint Lucia to develop a national waste strategy to manage their waste for the next 20 years in a financially-viable, technically-feasible, and socially-acceptable manner. To accomplish this, Karen:

- Engaged all relevant stakeholders to determine the goals and vision to decrease dependency on landfills through by converting waste into a resource.
- Assessed the strengths and weaknesses of the existing waste management system; benchmark the current waste management system against similar systems.
- Evaluated solid waste technical, programmatic, regulatory and financial pathways to implement the national strategy recommendations.

Karen also facilitated a National Waste Management Strategy Workshop, attended by 25 representatives from various ministries, government departments, statutory agencies, and the private sector. The Workshop was one of the strategies used to get broad-based input into a Solid Waste Management Strategic Plan for Saint Lucia. As a result of this planning process, Saint Lucia developed a five-year, strategic action plan to assure consistent and efficient waste collection, use waste as a local resource for local businesses to manufacture products on-island , educate children on the importance of proper waste management, develop a system to recover plastic bottles, and develop, long-term final management systems.

United Nations Environmental Program: Caribbean Action Plan (2017-2018). Facilitated visioning sessions with ministers and environmental directors from 12 Caribbean nations to: 1) Inventory existing solid waste management systems throughout the Caribbean; 2) Quantify the social, environmental, and economic cost of inaction; 3) Evaluate systematic strengths and weaknesses; and 4) Begin establishing a platform for development of a regional solid waste action plan that fosters an environmentally and financially sustainable solid waste management system.

City of Lagos, Nigeria: Integrated Waste System Improvement (2013). Over a 3-year period, helped the Lagos Waste Management Authority (LAWMA) improve their waste system. This was accomplished by raising awareness amongst leaders within Lagos State and Nigerian National government about the potential to improve environmental, social, and economic conditions; establishing a regulatory framework and funding mechanism to properly manage solid waste; and by structuring a public-private-partnership (PPP) to replace dump sites with an integrated solid waste management complex, which would include an organics composting facility, a materials recycling center, and a professionally engineered and operated residual waste landfill.

Municipal Corporation of Delhi, Delhi, India: Integrated Waste Management Strategy (2012). Assisted with development of the project strategy and feasibility report implement a 1,000 ton-per-day integrated solid waste management project waste system, and was actively involved in the procurement process through: preparing the request for qualifications (RFQ), engaging best practice companies, developing a request for technical and financial proposals (RFP) and terms of reference, evaluating proposals, and assisting with negotiations with proposers.

LISA COELHO

Education

BS – Environmental Studies, San Jose State University, 2016

Professional Affiliations

California Resource Recovery Association – Member
Northern California Recycling Association – Member
SWANA Gold Rush Chapter – Member
Women in Solid Waste and Recycling – Member
Recycling Certification Institute- Construction and Demolition Recycling Rate Evaluator

Professional Experience

Lisa Coelho is a Sustainable Materials Management Specialist with a passion for organics programs. As a Zero Waste Program Coordinator and Environmental Programs Consultant, Ms. Coelho has over 5 years of experience in the solid waste industry, specifically working with municipalities. She has unique previous work experience as a staff member for the City of Santa Clara, Department of Public Works and City of Sunnyvale, Environmental Services Department at the Sunnyvale SMaRT Station. In this role, Ms. Coelho provided extensive technical assistance to single-family residential customers, schools, restaurants, and commercial business customers.

Ms. Coelho is currently assisting municipalities with California's Short-lived Climate Pollutant Act known as Senate Bill (SB) 1383. She assists the Counties of Alameda, Monterey and Santa Clara with their solid waste research, program planning and technical assistance. She excels in the development of communication materials, such as tailored video and multimedia outreach materials. She is research oriented, with a strong background in community-based social marketing; outreach and education; data gathering and analysis; and project management. Notable projects in which she has been involved are described below.

Edible Food Recovery

Smart Business, Food Drop Program, LA County, CA. LA County's Food Drop program matches edible food donors to recipient organizations with in-person technical assistance appointments. Developed and led a "Train the Trainer" workshop to equip technical assistance staff with the best outreach tools, techniques, and problem-solving strategies necessary to facilitate maximum, successful food donation from 150 edible food generators (2018).

Silicon Valley Food Rescue, Santa Clara County, CA. Collaborated with Santa Clara County municipal staff, Silicon Valley Joint Venture, private corporations, and non-profit organizations to establish a food rescue framework. The mission of the Food Rescue Council is to collect edible food from large generators and redistribute it to recipient organizations before it becomes food waste. Served as a discovery lead for program research with donor organizations, recipient organizations, and food insecure customers (2016- with previous employer).

Source Reduction

Community- Based Social Marketing Applied to Household Food Waste Prevention, Santa Clara County, CA. Research, design, implement and evaluate a household food waste prevention program that converts expert-level understanding of behaviors into successful, measurable results through skillfully tailored behavior-based marketing. Completed the advanced Community-based social marketing workshop with Dough McKenzie-Mohr in October, 2018 (2019).

ReThink Disposable, Clean Water Action Fund, Santa Clara County, CA. Business engagement, technical assistance, and auditing for the ReThink Disposable campaign in Santa Clara County. Santa Clara County has banned expanded polystyrene, but allows compostable and recyclable disposable food ware. Businesses are provided with waste reduction metrics and a cost-benefit breakdown upon completion of their transition from disposable food ware to reusable dish ware. Community-based Social Marketing strategies are used to help business owners and employees to implement operational changes needed to make the transition from disposable to reusable dishes. Out of 200 businesses, 45 will be selected for ReThink Disposable certification (2018).

ReFuel Your Fun, California Product Stewardship, Sunnyvale, CA. Administration for the CalRecycle household hazardous waste (HHW) grant was awarded to the City of Sunnyvale, and Heidi Sanborn from California Product Stewardship Council was selected as the subcontractor for the project. The collaboration launched ReFuel Your Fun, a campaign for one-pound refillable gas cylinders. From 2010 to 2013, more than 16,000 disposable cylinders were processed through the SMaRT Station at a cost of over $140,000. Assisted with program outreach by tabling events with CPSC staff and launching a social media campaign (2017 – with previous employer).

Countywide Compliance Planning

Central Contra Costa Solid Waste Authority, Senate Bill 1383 Planning, Walnut Creek, CA. Conducted an analysis of current solid waste programs in comparison to the Senate Bill 1383 requirements to illuminate any gaps specific to maximizing the reduction and/or diversion of organic waste Recommended program enhancements, metrics for assessment, data tracking and reporting requirements (2018).

Monterey Regional Waste Management District, Waste Characterization Study, Salinas, CA. Sampled, sorted, and classified material types present in commercial and residential recycling loads for the cities of Carmel, Del Rey Oaks, Pebble Beach, Monterey, Salinas, Seaside, and Watsonville. Assisted with data entry and analysis. Provided a portfolio of relevant photographic evidence to the Outreach Coordinator. Participated in tours of the MRF for a local High School Leadership group (2018 and 2019).

Santa Clara County, Solid Waste Rate Study, Santa Clara County, CA. Collaborated with Santa Clara County Technical Advisory Committee city representatives and associated haulers to compile a comprehensive solid waste rate study. Additionally, prepared a state-of-curbside organics programs study to track the current status of each city's program, aimed at compliance with new SB 1383 regulations (2018 – with previous employer).

Santa Clara Valley Urban Runoff Pollution Prevention Program, Santa Clara County, CA. Participation in development of the Bay Area Stormwater Management Agencies Association standard operating procedures and data collection for qualitative trash assessments and qualitative trash monitoring and receiving in waters. Utilized EOA, Inc., training for Visual On-land Trash Assessment Protocol for Stormwater to conduct blight inspections in the Galway area of Santa Clara, and to provide necessary technical assistance and outreach to 94 impacted properties to obtain

compliance with stormwater regulations. Ms. Coelho is a supportive member of the Santa Clara Valley Urban Runoff Pollution Prevention Program Watershed Watchers program through event tabling, providing outreach at schools, social media promotion, and leading a national creek cleanup (2018 – with previous employer).

Commercial Organics Collection

City of Alameda, Zero Waste Technical Assistance for Commercial and Multi-family Dwellings, Alameda, CA. Provided extensive technical assistance to the 50 commercial and multi-family dwelling properties generating the greatest amount of waste in Alameda. Technical assistance included assisting with recycling, organics recycling, and food ware ordinance compliance as well as exploring opportunities for source reduction. Beyond recommended service level changes, technical assistance provided staff training and door-to-door outreach for multi-family tenants, office building tenants and businesses considered tenants of shopping centers. Additional assistance resources were offered whenever possible (e.g. applying for the StopWaste indoor container grant and assistance with locking exterior enclosures to prevent scavenging). Developed and managed a customized Recyclist database for record keeping and reporting. SCS was initially provided the top 50 generators with a reported 18.4% diversion rate in October of 2018. As of October 2019, 60 generators have achieved a collective 48.9% diversion rate. (2019).

Central Contra Costa Solid Waste Authority, Commercial Technical Assistance, Walnut Creek, CA. Provided technical assistance to commercial businesses to increase enrollment and participation in mandatory recycling and organics recycling. Technical assistance included recommendations for additional recycling and organics services; downsizing of trash containers; outreach materials; staff trainings; and guidance for placement of recycling and organics containers. (2019).

City of Santa Clara, Commercial Food Scraps Recycling Program, Santa Clara, CA. Led hauler staff (Mission Trail Waste Systems) in development of procedures, outreach materials, and protocol for initiating commercial business compliance with AB 1826. Prepared a plan to provide and track exceptional in-person technical assistance to businesses ranging from restaurants to NVIDIA. Trained city staff to perform and analyze commercial waste characterizations. Enrolled businesses in the appropriate organics recycling program based on the composition of their waste stream (e.g. composting yard waste only; composting yard waste with food and food-soiled paper; or recycling source-separated food scraps only). (2017- with previous employer).

City of Sunnyvale, Commercial Food Scraps Recycling Program, Sunnyvale, CA. Worked in partnership with the City's food scraps processor (Sustainable Alternative Feed Enterprises) to evaluate technical data and make program adjustments to meet diversion goals. Regularly performed commercial waste characterizations at the Sunnyvale SMaRT Station. The outreach plan combined technical assistance and assessment for mandatory recycling, mandatory organics recycling, food rescue, expanded polystyrene ban, plastic bag ban, ReThink Disposable certification and Green Business certification in an effort to provide a one-stop shop for environmental compliance needs. Hosted an introduction to AB 1826 workshop at LinkedIn's campus for 75 businesses. Assisted businesses with siting internal and external waste containers, signage, and staff training for businesses. Partnered with Action Research to conduct a Community-Based Social Marketing study about increasing participation and reducing contamination in restaurant organics programs. (2016 - with previous employer).

Community- Based Social Marketing Applied to Commercial Organics Collection, Sunnyvale, CA. Community-Based Social Marketing coaching with Lori Large and Jennifer Tabanico of Action Research. Conducted a research study titled, *Organics Recycling Readiness: The Barriers and*

Benefits of Commercial Organics Recycling in Sunnyvale, CA, published by Action Research on behalf on the City. (2015 – with previous employer).

Sunnyvale Unified School District, Zero Waste Champions Program, Sunnyvale, CA. Worked with School District staff, School Board staff, administrators, teachers, students, and custodians to create and oversee the School Zero Waste Champions Program, which simultaneously meets AB 1826 and AB 939 mandates. The students, known as Zero Waste Champions (ZWCs), led their fellow students in lunch waste diversion by pouring off leftover milk, recycling containers, and separating food scraps from packaging. Conducted each school's waste audit with students and administrators, and shared the story through a photo report. Photos showing each school's food scraps, plus color-coded bins and a few key accessories, armed the ZWCs for success. After a Train-the-Trainer session, students engaged in training the student body, teachers, and administrators so that the program became a self-sustained operation. With Ms. Coelho's assistance, ZWC students created a team to monitor daily operations and promote their program with signage, presentations, and videos. The Zero Waste Champions Program saved the Sunnyvale School District over $25,000 reduced garbage costs in the first two years; and won the 2017 City of Sunnyvale State of the City Award for Outstanding Environmental Achievement (2017 – with previous employer).

Residential Organics Collection

City of Santa Clara, Pilot Residential Food Scraps Recycling Program, Santa Clara, CA. Principal in drafting a clear, complete, concise analysis and recommendations to comply with new SB 1383 regulations by conducting thorough research, including current state of regulations, site assessments, waste sorts, provision of subject matter expertise, and customer satisfaction survey analysis for the Pilot Residential Food Scraps Recycling Program. Use of project management software to plan, organize, direct, administer, and evaluate programs. A customized Customer Relationship Management (CRM) system was created to facilitate a cohesive customer service strategy to simultaneously provide in-person technical assistance to customers and detailed digital recordkeeping for annual reports. (2018 - with previous employer).

City of Sunnyvale, FoodCycle: Residential Food Scraps Recycling Program, Sunnyvale, CA. Conducted feasibility research, planning, and communication implementation plan for the citywide rollout of a residential food scraps collection program. Hosted public information meetings with City management, Communications staff, Mayor Hendricks, the Neighborhood Leader's Association, and Sustainability Commission. In preparation for implementation, was able to analyze problems, identify alternative solutions, determine feasibility of proposed solutions, and implement recommendations in support of SB 1383 goals. Partnered with Gigantic Idea Studios to create a professional-quality, multi-lingual public service announcement that garnered a 2018 California Association of Public Information Officials Award for distinction (2017 - with previous employer).

AMBER DURAN, REHS

Amber Duran

Education

BS – Environmental and Occupational Health Science (Minor in Sustainability), California State University, Northridge, 2015

Professional Licenses

Registered Environmental Health Specialist (REHS) (No. 8684) – State of California, Department of Public Health (December 2016)

Specialty Certifications

Safe Surplus Food Donation Best Management Practices Training
Public Health Alliance, January 2018
Managing Municipal Solid Waste Collection Systems Course
Solid Waste Association of North America (September 2018)

Professional Affiliations

National Environmental Health Association
Solid Waste Association of North America
California Resource Recovery Association

Professional Experience

Ms. Duran has a diverse background in solid waste management and environmental health. Working with the Sustainable Materials Management team, she delivers quality technical support to businesses, multifamily dwellings, and government facilities to increase recycling participation, deliver outreach and education, coordinate collection with haulers, and collect data. Her experience in government and the private sector have sharpened her capability to collaborate with multiple types of organizations. Mrs. Duran has been working with SCS for 1.5 years. Prior to that, she worked for the City of South Pasadena for 2 years.

LA County Department of Public Works, Smart Business Recycling Program, Integrated Waste Management Plan, Los Angeles County, CA. Project staff responsible for assisting businesses and schools with recycling programs through site visits, waste characterization studies, and technical assistance. To prepare the County for SB 1383, Ms. Duran's work includes the food DROP program, a private-public partnership providing a comprehensive food recovery program. Duties include on-site assistance to restaurants, grocery stores, and other food generators to reduce food waste and donate surplus food. Ms. Duran formed coordinated strategies for addressing education deficits, infrastructure barriers, and brand protection concerns related to food recovery. (2017 to present).

City of Fullerton, Solid Waste and Recycling Services, Fullerton, CA. Project lead responsible for providing regulatory compliance and support through planning, business technical assistance, and

tracking and reporting for AB 1826, AB 939, and AB 341. Her work also includes collaborating with Waste Not OC to provide food recovery services to the City. (2018 to present).

La County Department of Public Works, Commercial and Institutional Recycling Program, Los Angeles County, CA. Project staff for the County headquarters' "Scrape Your Plate" organics recycling program, utilizing on-site vermicomposting and back of the house collection for anaerobic digestion. Work also includes resource development plans to increase diversion and comply with AB 1826 at County facilities (2017 to present).

City of Palmdale, Household Hazardous Waste Collection Events, Palmdale, CA. Project lead responsible for the coordination, administration, and reporting of eight HHW events throughout the City. Her work includes management, advertising campaign development, and public outreach (2017 to present).

StopWaste, Waste Characterization Study, Alameda County, CA. Project staff responsible for measuring the composition at transfer stations from residential and commercial streams and conducting visual audits of self-haul service (2017).

City of South Pasadena, Environmental Programs, South Pasadena, CA. City staff responsible for implementing environmental programs, including the plastic bag ban and polystyrene ban. Her work included outreach, education, and technical assistance to restaurants and grocery stores (2014 to 2017).

Athens Services, Third-Party Diversion Audits, Pasadena, CA. Project staff responsible for verifying third-party diversion for Athens Services customers in the City of Pasadena (2017 to present).

Athens Services, Third-Party Diversion Audits, Santa Paula, CA. Project staff responsible for verifying third-party diversion for Athens Services customers in the City of Santa Paula (2018 to present).

City of El Segundo, Solid Waste Consulting Services, El Segundo, CA. Ms. Duran assists the City of EL Segundo with a variety of solid waste services. Her work includes writing a Request for Proposals (RFP) for solid waste services, providing AB 1826 compliance reports, and preparing the City's Electronic Annual Report (2018 – Present).

City of Malibu, Solid Waste and Stormwater Consulting Services, Malibu, CA. SCS was hired to provide a variety of solid waste and stormwater services in the City of Malibu. Ms. Duran work with the City includes preparing a plan for addressing the City's sustainability goals and objectives by identifying baseline conditions, measurements, reporting methods, and potential emission reduction projects (2017 to present).

City of Culver City, Commercial Sector Waste Characterization Study, Culver City, CA. Ms. Duran assisted in conducting a waste characterization study for Culver City. The study measured the waste flow and composition from the commercial recycling, organics, and trash stream to identify contamination and evaluate efficiencies. Ms. Duran's responsibilities included management of the crew and execution of the study (2018).

City of Culver City, Sony Studios Waste Characterization Study, Culver City, CA. SCS was hired to conduct a waste characterization study for Sony Studios in Culver City. The study identified waste reduction and recycling opportunities for this specialized waste stream. Ms. Duran was project staff, assisting in performing the study and tracking data (2018).

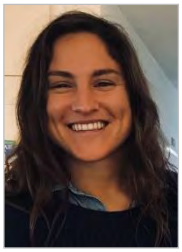
County of San Mateo, Pescadero Transfer Station, San Mateo County, CA. Ms. Duran served as project staff responsible for research on organic recycling technologies and data collection on organics processing facilities to determine capacity (2017).

City of Ames, Waste Diversion Enhancement and Recommendation Report, Ames, IA. Ms. Duran was responsible for conducting phone and email surveys of businesses to determine waste diversion opportunities and recycling program participation (2017).

City of Walla Walla, Financial Planning Study, Walla Walla, WA. Ms. Duran served as project staff responsible for rate and surcharge comparison studies along with evaluations and recommendations on compost sales (2017).

Athen's Environmental Services, Electronic Annual Report and Disposal Tracking, San Gabriel, CA. Ms. Duran assists the City of San Gabriel in preparing its Solid Waste Annual Report to CalRecycle. Her work includes identifying the City's compliance with diversion mandates and program and policy implementation. She also conducts disposal tracking for the City, which identifies disposal tonnage misallocated to the City, and reallocates it to the City of origin for disposal reporting purposes (2017 to present).

LYNEA BAUDINO



Education

BS – Environmental Studies, San Jose State University, 2016

Professional Affiliations

California Resource Recovery Association – Member
Northern California Recycling Association – Member
SWANA – Member
SWANA, Gold Rush Chapter – Member
Women in Solid Waste and Recycling – Member

Professional Experience

Ms. Baudino is a Sustainable Materials Management (SMM) Specialist with a passion for organics programs. She has over 3 years of experience in the solid waste industry, specifically working with local municipalities and non-profits. She has previously worked as a staff member for the City of Fremont's Environmental Services Department and the Ecology Center in Berkeley. In these roles, she provided technical assistance to residents, property managers, schools, city facilities, and businesses. She has extensive experience conducting qualitative and quantitative research on environmental policy and technology.

Notable projects in which she has been involved are described below.

Waste Characterization

Republic Services/City of Fremont, Commercial Residual Recycling Characterization, Fremont, CA. As a staff member, Ms. Baudino assisted with characterizing 10 samples of residual material coming from commercial recycling loads in Fremont. She also evaluated data and wrote reports.

City of Santa Cruz, Landfill Waste Characterization, Santa Cruz, CA. Ms. Baudino served as a staff member who assisted with characterizing over 20 samples of residential and commercial landfill waste, while also collecting and recording quality data.

Recycling and Zero Waste

City of Alameda, Zero Waste Alameda, Alameda, CA. Ms. Baudino collaborated with City representatives and associated haulers to accomplish the City's 89 percent diversion from the City's landfill by July 2019. She also provided technical assistance to commercial and City facilities by implementing source reduction changes and improving waste diversion in order to decrease the amount of landfill service provided.

Alameda County Green Business Program, Alameda County, CA. Ms. Baudino engaged local businesses for Green Business certification through the Alameda County Green Business Program. She collaborated with City staff to strategize on how to approach and involve local businesses, including City facilities, in becoming a green business. She teamed with County staff to conduct on-site waste assessments to fulfill waste diversion requirements for becoming a certified Green Business.

Mattress Recycling Council, California Programs, CA. Ms. Baudino analyzed data from over 30 cities, counties, and private waste haulers throughout California to verify their participation in the mattress recycling program.

Ecology Center, Resourceful Website Development, Berkeley, CA. Ms. Baudino collected and analyzed data regarding proper disposal, environmental impacts, and zero-waste alternatives of over 150 commonly disposed of items in the City of Berkeley. She coordinated with web developers and the marketing team to develop a user-friendly recycling guide, similar to the Alameda County resource *RecycleWhere.org*.

Commercial Organics

City of Fremont, Commercial Food Scraps Recycling Program, Fremont, CA. Ms. Baudino collaborated with hauler staff (Republic Services) in developing procedures, outreach materials, and protocols for initiating commercial business compliance with AB 1826. She also prepared a plan to provide and track exceptional in-person technical assistance to businesses, and implemented food scraps recycling at several City facilities, which include the Corporation Yard, fire stations, senior center, and libraries.

Alameda County Sustainability, Green Child Care Program, Fremont, CA. Ms. Baudino coordinated with County staff, school administrators, and teachers to implement organics recycling at various private preschools and learning centers throughout Fremont. To keep children and toddlers engaged, she developed appropriate signage to help them understand the basics of organics recycling. She also educated teachers and staff regarding the types of materials that belong in organics waste containers.

Source Reduction

ReThink Disposable Campaign, Clean Water Action Fund, Santa Clara County, CA. Ms. Baudino engaged businesses by providing technical assistance and completing audits for the ReThink Disposable campaign in Santa Clara County. The County banned expanded polystyrene, but allowed compostable and recyclable disposable foodware. Businesses were provided with waste reduction metrics and a cost-benefit breakdown upon completion of their transition from disposable foodware to reusable dishes. Out of 200 businesses, 45 were selected for the ReThink Disposable certification.

City of Berkeley, Disposable Foodware and Litter Reduction Ordinance, Berkeley, CA. Ms. Baudino assisted the Ecology Center, Plastic Pollution Coalition, and Berkeley Zero Waste Commission with outreach development, market research, event planning, and technical assistance. She has extensive experience conducting research on environmental policy and regulations, program development and implementation, and data analysis.

Rob Hilton, CMC
President

Historical Experience

Years of Experience:	17
Clients:	150
Engagements:	357
Articles and Speeches:	35

Education

B.A., Political Science/Public Administration, UC Davis

Zero Waste Principals and Practices, CRRA/SWANA Joint Certification

Professional License

Certified Management Consultant (CMC), Institute of Management Consultants USA

Professional History

HF&H Consultants, LLC: 2002 to present

Professional Organizations

Past President, California Resource Recovery Association (CRRA)

Faculty, Solid Waste Association of North America (SWANA)

Institute of Management Consultants (IMC)

Contact Information

(925) 977-6959

Rob@hfh-consultants.com

Range of Experience

Since 2002, Mr. Hilton has provided recycling and solid waste consulting services to public agencies in projects covering a wide range of strategic, operational, programmatic, contractual, and financial issues. Rob leads HF&H's California franchising team in support of more than a dozen communities each year who are either competitively procuring or negotiating solid waste collection, processing, and/or disposal contracts. In addition, he has lead HF&H's statewide efforts since 2016 to prepare local government clients for SB 1383. These efforts include several SB 1383 implementation plans, SB 1383-compliant franchise agreements, SB 1383-compliant ordinances, and a series of SB 1383 Local Government Summits.

Expertise

- SB 1383 Compliance
- Franchise Negotiations
- Franchise Procurements
- High Diversion/Zero Waste Plans
- Strategic Planning
- Stakeholder Engagement
- Policies and Municipal Codes

Recent and Relevant Projects

- **City of Fresno** – Developed RFP for franchised commercial and multi-family solid waste, recycling and organics collection and processing services and negotiated franchised contracts with two service providers, resulting in lower rates to customers than previously charged by the City.
- **Tulare County** – Negotiated the first ever franchise agreement in Tulare County's unincorporated areas, resulting in minor/no rate increases for rate payers and new services compliant with AB 341 an AB 1826.
- **Merced County Regional Waste Management Authority (MCRWMA)** – Contracted to perform a 3-year in-depth SB 1383 program compliance analysis for the County, which includes recommended programs, a cost benefit model, implementation considerations, a SB 1383 Action Plan, and presentations to the MCRWMA Governing Board.

Knowledge and Understanding of SB 1383

Since its adoption in 2016, Mr. Hilton has been a recognized leader on SB 1383. Immediately after the Governor signed the bill in 2016, Rob lead several in-process franchise negotiations through the process of anticipating requirements, drafting franchise language to meet those requirements, and negotiating that language with industry – all before the first draft rules were available. In order to gain a mastery of the issues, Mr. Hilton has attended all of the formal and informal rule-making meetings, and has provided comments and testimony on several occasions throughout the formal and informal rule

Rob Hilton, CMC
President

making process. Many on CalRecycle's executive team know Rob personally and have reached out to him on several occasions to solicit his feedback and perspective on the draft SB 1383 regulations and even to make a presentation during the informal rulemaking workshops.

Rob is currently leading a large effort for CalRecycle to prepare model tools related to the requirements of SB 1383. The tools include a model franchise agreement, a model food recovery agreement, and a model enforcement ordinance and purchasing policy. CalRecycle chose HF&H through a competitive process based on Rob and HF&H's unparalleled understanding of the complex requirements of the SB 1383 regulations.

Rob recognized the need to get information to local governments early to start raising awareness and beginning the planning process and has volunteered considerable time to do so. He has given numerous SB 1383-specific presentations for events and groups such as NCRA, CRRA, SWANA, and even at CalRecycle's SB 1383 workshop, as described in the speaking engagements section below. In addition, Rob lead HF&H to host two Local Government Summits in 2018 to disseminate information on SB 1383 to more than 155 representatives of over 100 jurisdictions in Northern and Southern California, and has worked to develop tool-kits, check-lists, and other compliance tools for jurisdictions.

Rob has supported or is currently supporting multiple jurisdictions and agencies with projects related to SB 1383, including several SB 1383 implementation plans, technical memos, SB 1383-compliant franchise agreements, and SB 1383-compliance ordinances for clients including: San Diego County, Santa Cruz County, the Town of Truckee, City of San Ramon, Castro Valley Sanitary District, City of Oceanside, South Bayside Waste Management Authority (SBWMA), RecycleSmart (CCCSWA), the City of Watsonville, the City of Santa Maria, and the City of Vacaville.

Procurement and Contract Negotiations

Mr. Hilton leads HF&H's contracting team in support of more than a dozen communities each year who are either competitively procuring or negotiating solid waste collection, processing, and/or disposal contracts. Rob specializes in working with large (e.g. San Jose, Fresno, San Diego) and multi-jurisdictional (e.g. Monterey Regional Waste Management District, South Bayside Waste Management Authority, West Valley Solid Waste Management Authority, etc.) agencies through their more complex and publicly-scrutinized procurement processes. He has also excelled in serving smaller communities like the Town of Truckee, Old Sacramento Historic District, and the Golden Hills Community Services District, who have very unique service conditions and requirements. Through these projects, no matter how large or small, Mr. Hilton employs a process that ensures integrity, transparency with the public and elected officials, and the best overall value for the community. In most cases, Mr. Hilton is able to secure significant service improvements, cost reductions to customers, and/or increased or stabilized funding to the public agency.

Recent Clients

Tracy Swanborn, P.E.
Senior Project Manager

"I enjoy helping clients achieve their diversion and contracting goals and am committed to delivering a high level of client service."

Range of Experience

Tracy Swanborn, a Senior Manager with HF&H, has more than 29 years of solid waste and recycling consulting experience assisting municipal agencies. Her expertise is in collection, transfer, processing, and disposal services procurement, contract development, and negotiations. She also has extensive experience assisting jurisdictions with diversion program planning including organics diversion programs.

Expertise

- Contract Development and Negotiations
- Procurements
- High Diversion/Zero Waste Plans
- Strategic Planning
- Stakeholder Engagement
- Policies and Municipal Codes
- SB 1383 Compliance

Recent and Relevant Projects

- **City of San José** – Analyzed existing non-exclusive commercial collection system for current diversion levels and managed negotiations with franchised haulers that resulted in triple the initial commercial diversion levels.
- **CalRecycle** – Currently creating model implementation tools and guidance to support jurisdictions and other regulated entities across the state with implementing programs and policies to reach compliance with SB 1383. The tools are under review and will be made available to the public in 2020.
- **County of San Diego** – Developed "Community" and "County Operations" plans for achieving 75% diversion by 2025 and zero waste by 2035. Planned policies and programs that are expected to reduce disposal by 160,000+ tons per year and comply with SB 1383. Drafted a non-exclusive franchise agreement (with numerous SB 1383 provisions), a CALGreen-compliant C&D ordinance, and County Code update.

Knowledge and Understanding of SB 1383

Tracy has been actively involved in monitoring the development of SB 1383. She attended in person or by webinar all of CalRecycle's SB 1383 informal rule-making workshops and CalRecycle's March 2019 SB 1383

Historical Experience

Years of Experience:	29
Clients Served:	69
Past Engagements:	175
Articles and Speeches:	11

Education
B.S., Civil Engineering
Bucknell University, PA

Professional License
Professional Engineer (C51875)

Professional History
HF&H Consultants, LLC: 2000 to present

Brown, Vence & Associates: 1990 to 2000

Professional Organizations
Solid Waste Association of Northern California (SWANA)

California Resource Recovery Association (CRRA)

Contact Information
(707) 246-4803
Tracy@hfh-consultants.com

Tracy Swanborn, P.E.
Senior Project Manager

hearing. As part of the HF&H team that developed and hosted two SB 1383 Local Government Summits in 2018 for jurisdictions, Ms. Swanborn was instrumental in developing the SB 1383 presentation and presented a significant portion of the content. She also led the preparation of HF&H's SB 1383 compliance checklist, which has been distributed widely to jurisdictions.

Tracy is managing a large effort for CalRecycle to prepare model tools related to the requirements of SB 1383. The tools include a model franchise agreement, a model food recovery agreement, and a model enforcement ordinance and purchasing policy.

Franchise, Processing, and Disposal Contracting

Ms. Swanborn has managed over 17 competitive contractor selection projects for Alameda, Central Contra Costa Solid Waste Authority (CCCSWA), Livermore, Petaluma, Union City, Newark, Chandler (Arizona), Fremont, Windsor, Citrus Heights, Sandy (Oregon), Santa Cruz County, South Bayside Waste Management Authority (SBWMA), Colusa, Chula Vista, and assisted with many others including: the City of Palo Alto's Zero Waste procurement, the City of San Jose's commercial redesign procurement, and the South Bayside Waste Management Authority's collection and processing procurement. Her procurement experience includes diversion and program planning, RFP and contract preparation, proposal evaluation, contractor selection, and negotiations. As part of these projects, she regularly presents reports to elected officials and facilitates public workshops. She has managed other types of projects including redesign of collection systems; sole source contract negotiations for collection, processing, and disposal services; development of non-exclusive franchise agreements; and review and revision of municipal code language.

Ms. Swanborn is currently preparing a non-exclusive franchise agreement for the County of San Diego, for which she developed new contract provisions to address collection-related SB 1383 requirements. The draft agreement has been presented to haulers for review and comment on two occasions. In the next few months, it will be presented at a public meeting and then to the Board for approval.

Ordinance Development

Ms. Swanborn is currently assisting the County of San Diego with a major revision of their solid waste ordinance and development of a CALGreen-compliant construction and demolition debris recycling ordinance. This process has involved engagement with stakeholders on several occasions to solicit and respond to questions and concerns. In the past, she prepared solid waste ordinances for the Cities of Alameda and Livermore.

Recent Clients

CalRecycle

City of San Jose, Capital of Silicon Valley

County of San Diego — The Noblest Motive is the Public Good — MDCCCLI

Recycle Smart — Central Contra Costa Solid Waste Authority

Marva Sheehan, CPA
Vice President

"Providing assurance to our client's that their ratepayers are paying the appropriate rates is what drives me."

Range of Experience

Marva Sheehan is Vice President of HF&H Consultants and has more than 40 years of financial and accounting experience as a consultant and controller. Marva has been with HF&H since 2005 and has managed rate review projects, billing and franchise fee audits, procurement and contract negotiations, and financial and operational reviews for jurisdictions throughout California. She has developed solid waste cost of service rate models to meet Proposition 218 requirements.

Expertise

- Rate Adjustment Reviews
- Cost of Service Studies
- Agency Fee Audits
- Performance Reviews
- Billing System Audits
- "Workable" Recommendations for Agency and Haulers
- Executive Director of Solid Waste Authority

Recent and Relevant Projects

- **Fresno County** – Negotiated an agreement between the County and the City for disposal of the City's solid waste at the American Avenue landfill, developed a long-term tip fee model for the landfill, and updates the model annually.
- **Sacramento County** – Currently performing a cost of service engagement for the County's landfill, transfer station, and residential collection service.
- **City of San José** – Performing annual rate adjustments for organics processing and collection, in addition to on-call consulting related to financial inquiries.

Knowledge and Understanding of SB 1383

Ms. Sheehan's long-standing industry knowledge has been extremely valuable for understanding the complexities of SB 1383 and the potential cost impacts. Marva is currently developing an SB 1383 implementation for the West Valley Solid Waste Management Authority (WVSWMA). As executive director of WVSWMA, Marva is assisting member agencies in meeting their diversion goals, understanding SB 1383 regulations, and supporting strategic planning for implementation.

Historical Experience

Years of Experience:	40+
Clients Served:	67
Past Engagements:	238
Articles and Speeches:	3

Education

B.S., Business Administration, Emphasis in Accounting, University of CA, Berkeley

Certified Public Accountant – State of California

Professional History

HF&H Consultants, LLC: 2005 to present

Allied Waste Industries: District and Regional Controller, 1999-2005

Browning Ferris Industries: Division and Area Business Center Controller, 1992-1999

Professional Organizations

California Society of Certified Public Accountants

Contact Information
(925) 977-6961
Marva@hfh-consultants.com

Marva Sheehan, CPA
Vice President

Marva gave a presentation on the edible food recovery components of SB 1383 at the SB 1383 Local Government Summits, hosted by HF&H in June of 2018. She also presented on how to adapt franchise agreements in changing market conditions at the SWANA Western Regional Symposium in April 2019, which will be an extremely valuable skillset as we work to adapt and create model franchise agreements for SB 1383.

Solid Waste Industry Expert

Prior to joining HF&H, Ms. Sheehan was a controller in the solid waste industry, participating in management of solid waste and recycling collections, MRFs, transfer stations, and landfills. Ms. Sheehan has prepared rate applications for several Allied Waste Industries divisions. The process included the preparation of the rate application package as well as working with the outside consultants during the review. She developed the policies and procedures for jurisdictional cost allocations and participated in the franchise fee audits for several cities in the Bay Area, including the City of Fremont and the City of San Jose. This industry perspective is very valuable as HF&H develops and negotiates agreements and rates with collection companies.

Recent Clients

Lauren Barbieri
Senior Project Manager

Historical Experience

Years of Experience:	10
Clients:	75
Engagements:	132
Articles and Speeches:	5

Education

M.B.A., University of CA, Los Angeles

B.A., Legal Studies, University of CA, Berkeley

Professional History

HF&H Consultants, LLC: 2008 to 2009; 2011 to present

Hornblower Yachts, Inc.: 2005 to 2008

Professional Organizations

Solid Waste Association of North America (SWANA)

Contact Information
(925) 977-6958
Lauren@hfh-consultants.com

Range of Experience

Ms. Barbieri brings a decade of franchise analysis, development, negotiations, and management experience to her role as a Senior Project Manager in HF&H's Northern California office. She began working with HF&H in 2008 and returned in 2011 after earning an MBA from the UCLA Anderson School of Management.

Recently, Ms. Barbieri assisted the City of San Ramon with negotiating an SB 1383-compliant franchise agreement, one of the first such agreements in the State. Beyond utilizing her negotiating skills to protect solid waste ratepayers, Ms. Barbieri has assisted more than 75 municipal agencies with financial analysis, rate setting, audits, diversion planning, and municipal code drafting,.

Expertise

- Franchise Agreements
- Negotiations
- RFP Development
- Policies and Municipal Codes
- Performance Reviews
- SB 1383 Compliance

Recent and Relevant Projects

- **City of Elk Grove** – Managed franchised contract negotiations, which resulted in implementation of additional programs to assist the City in diverting additional tonnage and a City Organics Recycling Program.
- **City of Clovis** – Managed a competitive RFP process that resulted in additional amenity collection and recycling, and food waste collection and processing.
- **City of Oakland** – Performed billing audit and performance review of Waste Management; assisted with development of the City's C&D system, contract, and resulting municipal code revisions; assisted with the implementation of the Waste Management and California Waste Solutions agreements.

Knowledge and Understanding of SB 1383

Lauren has been following SB 1383 development and monitoring changes through the various draft regulations. As part of the HF&H team that hosted two SB 1383 Local Government Summits in 2018 for jurisdictions, Ms. Barbieri prepared and presented portions of HF&H's 4-hour SB 1383 presentation. She recently completed drafting and negotiations of three SB-1383 compliant franchise agreements described in the following section.

Lauren Barbieri
Senior Project Manager

Franchise, Processing, and Disposal Contracting

Since Ms. Barbieri began at HF&H, she has managed and/or participated in a wide range of procurement and negotiation projects including several competitive and sole source procurements, as well as operational reviews. In 2018, she assisted the City of San Ramon in developing one of the first SB 1383-compliant franchise agreements in the State, and managed competitive negotiations with multiple haulers for both San Ramon and the Castro Valley Sanitary District. She also managed sole source negotiations for unincorporated regions of Nevada County, which position the agency for compliance with SB 1383 when the regulations become effective while avoiding an initial rate increase. In 2017, she managed sole source negotiations for the Town of Truckee, and the Cities of Pleasanton and Elk Grove. In 2016, Lauren drafted multiple contract documents regarding the construction and operation of a new material recovery, anaerobic digestion, and composting facility for the County of Santa Barbara, and drafted a new franchise agreement for the City of Rancho Cucamonga to use in sole source negotiations. In 2015, she completed a franchise study for the City of Berkeley, which was focused on the co-existence of City-operated and private-hauler collection operations, and managed a competitive procurement for the City of Clovis. In 2014, Lauren advised the City of Hayward in a sole source negotiations process, and managed the first ever competitive procurement in the Golden Hills Community Services District, which resulted in a 20% rate reduction, introduction of a recycling cart program and development of a recyclables drop-off center within the District limits. In 2012, she participated in facilitating a competitive procurement in California City that resulted in significant improvements to recycling programs and illegal dumping mitigation. In 2011, she drafted new agreement language and collaborated in a MRF agreement extension for the City of Oxnard. She has also aided in RFP and franchise revisions for the Cities of Milpitas, Livermore, Newark, Palo Alto, Daly City, Mountain View, California City, Oxnard, the Monterey Regional Waste Management District (MRWMD), the Central Contra Costa Solid Waste Authority (CCCSWA), and the Counties of Santa Cruz and Marin, and contributed to building a solid waste business plan for the City of Sacramento.

Recent Clients

City of Elk Grove Recycling & Waste

City of Oakland

City of Clovis

San Ramon California

EMILY COVEN
12242 Business Park Drive, Suite 19
Truckee, CA 96161
emily@recyclist.co
(530) 414-9901

PROFESSIONAL EXPERIENCE

Recyclist, Truckee, CA
Founder, 2014-Present

- Created and launched the Recyclist Program Tracker, a cloud-based data management tool that municipal solid waste and recycling program managers use to gain direct insight into waste streams, track compliance, and conduct effective, targeted outreach.

- .Created and launched the nation's first web & mobile platform designed exclusively for municipal solid waste and recycling programs to conduct world-class public education and outreach.

- Provided customized technology solutions throughout the waste industry, including creating a county-wide digital media strategy, developing mobile load-checking apps for contamination prevention, building custom data management platforms, and designing custom website solutions.

- Delivered presentations on digital outreach and data management at WasteExpo, SWANApalooza, SWANA Western Regional Symposium, NCRA Recycling Update, and regional conferences in New York, New England, Colorado and Washington.

- Served as a Guest Instructor for GreenEducation.US's Certified Sustainable Resource Management Professional program, teaching courses on Digital Outreach, Data Tracking and SB 1383 Compliance.

- Led a growing company successfully providing ongoing digital outreach and data management services to now 35 cities, counties, waste management authorities and haulers, covering a combined population of more than 7 million California residents.

Flax Media, San Francisco, CA and Queenstown, New Zealand
Founder & Principal, 2004-2014

Founded and ran a virtual international web design and development agency primarily servicing the news, media and education industries.

Services included:

- Strategic Technology Consulting
- Product Management
- Website & Application Design
- Website & Application Development
- Information Architecture
- User Experience Design
- Content Management Systems
- Mobile Apps
- Digital Audio & Video Production
- Software & Product Demos
- Online Marketing

Clients included:

- PBS
- MTV
- KQED Public TV & Radio
- Current TV
- Yale University
- UC Berkeley
- George Lucas Educational Foundation
- Kaiser Family Foundation
- Foundation for the NIH
- 23andMe
- Michael Pollan

KQED Public Television & Radio, San Francisco, CA
Web Producer, 2001-2004

MTV Networks, San Francisco, CA and New York, NY
Director of Production Technology, 2000-2001

SonicNet.com, San Francisco, CA
Editorial Technology Coordinator, 1999-2000

EDUCATION

Yale University
B.S., Molecular Biophysics & Biochemistry, 1996, 3.8/4.0
cum laude, with Distinction in the Major

San Francisco State University
M.A., Creative Writing, 2004, 4.0/4.0

Sara McCadden

sara@recyclist.co

10605 Saxon Way Truckee, CA 96161 • Mobile: (530) 205-0666

Education

MSc. Hydrology, GPA: 3.5. University of Nevada. Reno, Nevada, 2014-2017
BSc. Biology, GPA: 3.1. Florida State University. Tallahassee, Florida, 2004-2009
Minors in Chemistry and Mathematics

Scholarship/Awards

Jerry and Betty Wilson Hydrology Scholarship (2015-2016)

Technical Skills

- Experienced in preparing technical reports in compliance with CEQA/NEPA, ESA, and SMARA.
- Develop and manage program budgets ranging from $100k-$900k.
- Successfully manage project/program staff schedule and yearly trainings.
- Experience reviewing grants for habitat enhancements.
- Effectively train and lead field staff for: vegetation, hydrology, and soil sampling; botanical and wildlife surveys; habitat assessments; and wetland delineations.
- Knowledgeable of California Code of Regulations, primarily Environmental Protection and Natural Resources titles.
- Knowledgeable in NEPA and CEQA.
- Knowledgeable in both California and Nevada water rights laws and regulations.
- Proficient in ArcGIS, statistical data analysis using RStudio, and MS Office applications.
- Experience in public speaking and conference planning.

Professional Experience

Project Manager, October 2018 - current
Recyclist, Truckee, California

Environmental Scientist 3, October 2016 – July 2017
State of Nevada, Reno, Nevada

Graduate Student Researcher, August 2014 – December 2017
University of Nevada, Reno, Nevada

Ecologist, July 2014 – July 2015
Robison Engineering, Sparks, Nevada

Land Health Assessment Program Coordinator, July 2013 – July 2014
The Great Basin Institute, Reno, Nevada

Ecologist, March 2010 – July 2013
Garcia and Associates, Auburn, California

Technical Writer/Botanist, November 2009 – March 2010
The Forester's Co-Op, Grass Valley, California

Botany Technician, May 2009 – November 2009
The Great Basin Institute, Reno, Nevada

CLIENTS & PROJECTS

Program Tracker
Data Processing and Management

City of Alameda
City of Burbank
City of Clovis
City of Culver City
City of Cupertino
City of Napa
City of Sunnyvale
City of Thousand Oaks
City of Union City
City of Vacaville
Town of Truckee
Placer County
Riverside County
Sacramento Regional SWA
San Luis Obispo County IWMA
Santa Cruz County
Salinas Valley Solid Waste Authority
Sonoma County
Alameda County Industries
Marin Sanitary Service
Milpitas Sanitation
Mission Trail Waste Systems
Mt. Diablo Resource Recovery
Republic Services of Contra Costa County
Republic Services of Daly City
Sonoma County Resource Recovery

Public Education Website+ / Ultimate Recycling Guide
Digital Outreach

City of Burbank
City of Lincoln
City of Napa / Napa Recycling
City of San Jose
City of Santa Cruz
City of Stockton
City of Torrance
Town of Truckee
City of Ukiah / C&S Waste Solutions
Lake County / C&S Waste Solutions
Merced County Regional WMA
Lawrence Berkeley National Laboratory

Technology Consulting

Burrtec
Milpitas Sanitation
Waste Connections
Sustainable Alternative Feed Enterprises
San Jose Center for the Development of Recycling

Patti Raab

SUMMARY OF QUALIFICATIONS

Over 20 years of experience collaborating with both technical and non-technical teams across all levels of an organization to provide accurate reliable data for analysis, answering questions and leading to new discoveries and insights. Proficient in the development and design of interactive business analytics, dashboards and reports meeting all levels of company requirements with recognized problem solving skills and a proven ability to understand and anticipate customer needs.

WORK EXPERIENCE

Data Manager/Engineer
Recyclist June 2019 to Present

Business Intelligence Developer / Consultant
Independent Contractor Sept 2018 to May 2019

Business Intelligence Developer
Clear Capital Apr 2015 to Aug 2018

Software Engineer II - Research & Development
Haemonetics Corporation Jan 2009 to Mar 2015

Report Developer
Independent Contractor Aug 2005 to Jan 2009

IT Specialist
Agilent Technologies / Hewlett-Packard Co May 1994 to Oct 2001

EDUCATION

Sierra College - Area of Study/Major: Computer Science
SQL Using Oracle, Web Application I, Data Communications, Advanced Visual Basic

University of California Santa Barbara - BA Political Science

CERTIFICATIONS & MEMBERSHIPS

Microsoft Professional Certificate: Applied Data Analytics
Microsoft Verified Certificate: Analyzing and Visualizing Data with Power BI
Microsoft Verified Certificate: Essential Math for Machine Learning: Python Edition
Microsoft Verified Certificate: Querying Data with Transact-SQL
Microsoft Verified Certificate: Analytics Storytelling for Impact
Microsoft Verified Certificate: Ethics and Law in Data and Analytics
Cloud Analytics Academy: Cloud Analytics Master

Jane Olvera - PRESIDENT | FOUNDER

More than 30 years' experience

Strategic Brand Development
Consumer Research & Analysis
Media Strategy & Negotiation
Budget Strategy & Management
Team Leadership
Consumer Activation Strategies
Outreach Program Development
Results-Driven Reporting
Multi-Agency Coordination
Multi-Media Creative Direction

Education

Master of Arts, Organizational Communication, CSU Fresno, Summa Cum Laude (pending thesis)
Bachelor of Arts, Speech Communication, CSU Fresno, Magna Cum Laude

Certifications

2018 Certificate in Business Intelligence (ARC-GIS), MBA Program, Brandman University

Awards & Honors

- 2018, 2017, 2016, 2015 & 2014 Business Journal "Best Agency of the Year" Award
- 2017 Fresno State MCJ Alumni & Friends "Fellow" Award for Industry Contributions
- 2016 Fresno Advertising Federation Silver Medal Award for Industry Contributions
- 2013 Better Business Bureau Torch Award for Business Ethics
- 2012 Fresno Advertising Federation "Agency of the Year" Award
- 2005 First 5 Fresno County "Child-Friendly Business" Award
- 2004 KSEE TV NBC 24 "24 Women of Influence" Award
- 1999 KSOF Radio 98.9 FM "San Joaquin Valley Best" Women in Business Week Award
- 1996 Fresno Business Journal "40 Business Professionals Under 40" Award
- 1993 Miss California USA
- 1990 National Speakers' Association Cavett Award
- 1990 CSUF Arts & Humanities Dean's Medalist
- 1990, 1989 & 1987 National Hispanic Scholar
- 1989 Leadership America Graduate
- 1989 Leon S. Peters Leadership Award
- 1989 Catholic School Achiever of the Year
- 1988 United States Congressional Silver Medal

Professional Memberships & Associations

- Fresno Advertising Federation, Member/ Contributor
- Public Relations Society of America, Member/ Contributor
- Fresno State Bulldog Alumni Association, Member
- Fresno County Farm Bureau, Member

Project Examples

Project Name	Healthy Fresno County Brand
Project Description	Develop an umbrella brand for Fresno County Initiative led by Public Health
Client	Fresno County Department of Public Health and FCHIP

Role	Strategic direction, consumer research and stakeholder collaboration for multiple initiatives that require perception and behavior change outcomes

Project Name	Fresno County Department of Behavioral Health Focus Groups
Project Description	Conduct a series of focus groups with the purpose of enhancing future outreach efforts and department communications plan
Client	Fresno County Department of Behavioral Health
Role	Developed questionnaires, conducted focus groups, presented report to stakeholders

Project Name	Go Human Campaign
Project Description	Conduct research with the purpose of enhancing future outreach efforts and department communications plan
Client	Southern California Association of Governments
Role	Facilitated multiple agency collaboration and consumer awareness research

Michele Meisch - DIRECTOR OF CLIENT SERVICES
More than 25 years' experience

Strategic Brand Development Consumer Research & Analysis
Media Strategy & Negotiation Budget Strategy & Management
Team Leadership

Education

MBA, Marketing, University of Phoenix
Bachelor of Science Business, emphasis in Marketing, CSU Fresno

Professional Memberships & Associations

- Fresno Advertising Federation, Member/ Contributor
- Fresno State Bulldog Alumni Association, VP of Recruitment and President Elect

Project Examples

Project Name	Fresno County Health Improvement Partnership Branding
Project Description	Develop logo, messaging and website
Client	Fresno County Health Improvement Partnership
Role	Strategic direction, project management, stakeholder outreach

Project Name	Tobacco Cessation Community Outreach
Project Description	Develop messaging, media planning and buying, community event sponsorship research and execution
Client	Fresno County Department of Public Health
Role	Strategic direction, project management, community event planning and execution.

Project Name	Suicide Prevention Awareness Campaign
Project Description	Develop messaging and creative elements, media planning and buying, community event sponsorship research and execution
Client	Fresno County Department of Behavioral Health
Role	Strategic direction, project management, community event planning and execution.

Judy Soper – SENIOR MEDIA BUYER

More than 30 years' experience

Traditional (print, TV, radio, outdoor) Media Buying
Search Engine Marketing
Digital & Programmatic Planning & Buying
Strategic Planning
Media Negotiating and Purchasing
Data Analysis
Comprehensive Campaign Post Analysis & Reporting
Budget Management

Education

Bachelor of Science in Business Administration with Advertising Minor, CSU, Fresno
Associate of Arts in Human Services, Community College of the Finger Lakes

Programs and Software

- Nielsen, Arbitron and Comscore ratings systems
- STRATA Buying Software. Centro, Acuity and Choozle
- Tapclicks, Funnel, Google Data Studio, Google Analytics, StackAdapt, and CallRail
- Google AdWords Certified

Awards

- 2015 Fresno Advertising Federation Media Planner of The Year
- 1989 Kellogg's AAF National Student Advertising Competition Top 15 Team
- John Reed King Advertising Scholarship

Project Examples

Project Name	Tobacco Cessation Community Outreach
Project Description	Develop messaging, media planning and buying, community event sponsorship research and execution
Client	Fresno County Department of Public Health
Role	Media research, media planning, buying and reporting

Project Name	Flu Vaccination Public Outreach Campaign
Project Description	Develop messaging, media planning and buying
Client	Fresno County Department of Public Health
Role	Media research, media planning, buying and reporting

Project Name	Low Cost Auto Insurance
Project Description	Develop messaging, media planning and buying
Client	California Low Cost Auto Insurance

Katrina Riggs - COPYWRITER

More than 10 years' experience

- Messaging & concept development
- Website projects
- Advertising development
- Copywriting & editing
- Broadcast production
- Branding & Creative Concepting

Education

Bachelor of Arts, Mass Communication & Journalism with Print Emphasis, CSU Fresno
Dow Jones News Fund Editing Internship Program

Awards

2014 Telly Award Winner
2007 California College Media Association Award Winner

Project Examples

Project Name	Website
Project Description	Design, content and development of website
Client	City of Fresno Department of Public Utilities
Role	Copywriter

Project Name	Lead Poisoning Prevention Public Outreach Campaign
Project Description	Develop messaging, media planning and buying
Client	Fresno County Department of Public Health
Role	Creative concepting, campaign messaging and tag line development

Project Name	Healthy Fresno County Brand
Project Description	Develop an umbrella brand for Fresno County. Initiative led by Public Health.
Client	Fresno County Department of Public Health and FCHIP
Role	Tag line development and website content

Bryan Pickens - ART DIRECTOR

More than 20 years' experience

Creative Direction
Graphic Design
Advertising Development
Custom Illustration
Campaign Concepting

Education

Bachelor of Fine Arts in Graphic Design and a minor in Fine Arts from California State University, Chico
Studied Art at the Los Angeles Academy of Figurative Art

Awards & Honors

- 2016 Fresno Advertising Federation Best of Show, Advertising Industry Self-Promotion Online/Interactive, JP Marketing website
- 2016 Gold ADDY, Logo Design, Nutcher Milk Company logo
- 2016 Gold ADDY, Packaging Single Unit, Nutcher Milk packaging
- 2016 Silver ADDY, B-to-B Website, FocusVision website
- 2015 Gold ADDY, Elements of Advertising, Logo, GO by BIKE logo, SANDAG
- 2015 Gold ADDY, Sales Promotion, Kit, CORE Business Interiors
- 2014 Fresno Advertising Federation Creative Talent of the Year Award
- 2014 Fresno Advertising Federation Best of Show 2014, Advertising Industry Self-Promotion, Bizzy the Bee Children's Book
- 2014 Silver Telly Award, "Art of Caring" Kaweah Delta Hospital
- ADDY Gold Winner in the following: Magazine Design, Editorial Spread, Cover Design, Book Design, Stationary Package, Logo Design, Poster Design, Illustration, Website/Consumer HTML, Self Promotion, Direct Self Promotion, Invitation
- 2006 Digital Art Show: Artronica 2006
- 1998 Designer of the Year, Orion Newspaper, California State University, Chico

Project Examples

Project Name	Go By Bike Campaign
Project Description	Develop messaging and branding campaign
Client	SANDAG
Role	Creative concepting, brand development

Project Name	Suicide Prevention Awareness Campaign
Project Description	Develop messaging and creative elements, media planning and buying, community event sponsorship research and execution
Client	Fresno County Department of Behavioral Health
Role	Creative concepting, campaign design and imagery

Project Name	Flu Vaccination Public Outreach Campaign
Project Description	Develop messaging, media planning and buying
Client	Fresno County Department of Public Health
Role	Creative concepting, campaign design and imagery

Appendix B

Letters of Recommendation

COUNTY OF Placer

January 19, 2016

To Whom It Concerns:

SCS Engineers and its project team was contracted by the County of Placer to conduct an evaluation of collecting, hauling, and processing food waste in the eastern portion of Placer County. The project included modeling the waste stream to estimate the types and quantities of organic material generated, identify site constraints and criteria for consideration when evaluating and deciding on a new organics processing technology, evaluate site location options and develop a pro/con matrix, research potential technologies, and score and develop list of viable options, assess feedstock and product markets, identify permitting requirements and regulations, and develop a cost model to assist with the evaluation. All of this information was placed in a report which made recommendations on what type of organics processing system should be selected and in what location.

SCS provided the County with the technical expertise that was essential to the successful completion of the project. The resulting document was a well-organized and easily understandable, and provided the County with valuable information for use in its the decision making process.

I would recommend SCS and Tracie Bills and Michelle Leonard for work involving organic waste management, operational/financial analysis, and infrastructure development.

Feel free to contact me for any additional information at (530) 886-4918 or cford@placer.ca.gov.

Sincerely,

Casey Ford, P.E.

Public Works and Facilities ▪ Environmental Utilities Division ▪ 11476 C Ave ▪ Auburn, CA 95603
(530) 889-6846 office ▪ (530) 889-6809 fax ▪ www.placer.ca.gov

RecycleSmart
Central Contra Costa Solid Waste Authority

March 2, 2016

RE: Letter of Recommendation

To Whom It May Concern;

SCS Engineers was contracted through the Central Contra Costa Solid Waste Authority (CCCSWA) and Republic Services to perform visual characterizations and commercial technical assistance for our six member agencies. I have had the opportunity to work with Tracie over this past year and find her a joy to work with as well as extremely knowledgeable and having an extensive array of solid waste and recycling experience.

The project was an extremely quick start in July of last year and required a fast pace to meet expectations of our Board. Tracie was able to pull a team of 10 talented sub-contractors together within a day or so, and had the project running within a week after the contract was signed. Her flexibility while managing the project and working with her team was impressive. She has attended a few of our team meetings providing a project update and insight into how the project was moving forward and confirming we were meeting our goals. She also presented to our Board last fall to discuss this project and the importance of recycling technical assistance in order to improve their diversion rate and comply with State and Local mandatory recycling. With her assistance, she was able to inform our Board of the challenges, successes and basic best practices of how to perform technical assistance to get effective results.

Tracie is extremely dedicated, thorough and flexible. She is an exceptional project manager and has a knack for bringing a talented team together to get results. Our experience with Tracie has been excellent and I would recommend her and SCS Engineers.

Sincerely,

Ken Etherington, Executive Director
Central Contra Costa Solid Waste Authority

WHERE COMMUNITY AND SPIRIT MEET

TO WHOM IT MAY CONCERN,

In January 2016, the City of Kirkwood, Missouri retained SCS Engineers to conduct a solid waste cost of services and rate study for the City's solid waste system. SCS developed a Pro Forma rate model, which enabled SCS to make financial performance projections for the upcoming planning period (FY 2016-2021) for the Solid Waste Division and model different possible rate structures. In addition to the rate study, SCS reviewed the overall operations of the City's solid waste collection system and made recommendations for improvements to our operations.

Marc Rogoff was the SCS project manager. Marc spent several days onsite observing our operations and interacting with the staff. During this time period Marc acted as an extension of our staff, which is unlike the typical consultant-client relationship. This interaction, and his knowledge of the solid waste industry, allowed the City to gain a better insight into developing a more efficient and cost effective service.

The City has taken a major step towards implementing SCS's recommendation by phasing out the City's commercial solid waste collection program. Through SCS's evaluation it was shown that the residential program was supplementing the commercial programs' inefficiencies.

I would highly recommend SCS Engineers to other municipal solid waste programs because of their knowledge of the industry and their ability to provide the hard facts of operational deficiency in a positive, hopeful perspective. If you have any questions, please contact me at (314) 822-5846 or bensinwe@kirkwoodmo.org.

Sincerely,

William E. Bensing Jr.
Director of Public Services

Appendix C

Legal Disclosure

October 30, 2019

CONFIDENTIAL

MEMORANDUM

TO: County of Fresno, CA

FROM: Stearns, Conrad and Schmidt, Consulting Engineers, Inc.

SUBJECT: RFP No: 20-018 Solid Waste Planning Consulting Services

SCS has been in business for 49 years. We have offices throughout the United States and other parts of the World. SCS stands behind its work. Occasionally, an organization with our scope and size has been involved in litigation. None of the matters has been or are material to our operations or limit in any way our ability to perform the work proposed.

1.	Lawsuit Name	ISM Industries, Inc. v. Stearns, Conrad and Schmidt, Consulting Engineers, Inc. dba SCS Energy, Mitchell Energy Services, LLC and Kilgore Industrial Civil, LLC
	Case Number	A180382-C
	Date of Lawsuit	October 1, 2018
	County/State Files	District Court of 128th Judicial District, Orange County, TX
	Parties Involved:	ISM Industries, Inc., SCS Energy, Mitchell Energy Services, LLC and Kilgore Industrial Civil, LLC
	Claim:	Breach of Contract
	Status:	Pending
2.	Lawsuit Name	Kelvin Wright v. Stearns, Conrad and Schmidt, Consulting Engineers, Inc.
	Case Number	NC061666
	Date of Lawsuit	March 2, 2018
	County/State Files	Superior Court County of Long Beach, CA
	Parties Involved:	Kelvin Wright, Stearns, Conrad and Schmidt, Consulting Engineers, Inc.
	Claim:	Wrongful termination, discrimination
	Status:	Settled March 2018
3.	Lawsuit Name	Stearns, Conrad and Schmidt, Consulting Engineers, Inc. dba SCS Engineers v. Rockview Dairies, Inc.
	Case Number	VC066932
	Date of Lawsuit	February 16, 2018
	County/State Files	Superior Court of the State of California for the County of Los Angeles
	Parties Involved:	SCS Engineers, Rockview Dairies, Inc.
	Claim:	Collection Action; counterclaim by defendant

	Status:	Pending
4.	Lawsuit Name	Yvette Styles et al v. City of Miami, SCS Engineers
	Case Number	2017-022967-CA-01
	Date of Lawsuit	September 27, 2017
	County/State Files	In the Circuit Court of the Eleventh Judicial Circuit in and for Miami Dade County, FL
	Parties Involved:	Yvette Styles, City of Miami, SCS Engineers
	Claim:	Suit against the City for health effects of an incinerator closed in 1970, (before SCS was started), and against SCS for unspecified negligence as a result of services provided to the City decades later.
	Status:	Pending
5.	Lawsuit Name	Stearns, Conrad and Schmidt, Consulting Engineers, Inc. dba SCS Engineers and SCS Field Services v. Twin Valley, Inc.; Steve Havens
	Case Number	17CV305865
	Date of Lawsuit	February 1, 2017
	County/State Files	Superior Court of the State of California for the County of Santa Clara
	Parties Involved:	SCS Engineers, Twin Valley, Inc., Steve Haven
	Claim:	Collection Action
	Status:	Settled June 2019
6.	Lawsuit Name	Zigler, Inc., Ward Zigler, and Patricia Zigler v. Southern States Cooperative, Inc., Stearns, Conrad and Schmidt, Consulting Engineers, Inc. dba SCS Engineers, Antietam Claim Service, LLC and Roger Greenfield
	Case Number	16-C-247
	Date of Lawsuit	January 12, 2017
	County/State Files	In the Circuit Court of Jefferson County, WV
	Parties Involved:	Zigler, Inc. Ward Zigler, Patricia Zigler, Southern States Cooperative, Inc. and SCS Engineers
	Claim:	Damage to property due to exposure to odors and ozone
	Status:	Settled August 2018
7.	Lawsuit Name	Daniel Hogan v. County of Humboldt; County of Humboldt Waste Management Authority; Winzler & Kelly; Griffin Dewatering Corporation; SCS Field Services
	Case Number	DR 160325
	Date of Lawsuit	June 24, 2016
	County/State Files	Superior Court of State of California in and for the County of Humboldt

	Parties Involved:	Daniel Hogan, County of Humboldt; County of Humboldt Waste Management Authority; Winzler & Kelly; Griffin Dewatering Corporation; SCS Field Services
	Claim:	Personal injury claim by an individual who fell in a hole on client's site.
	Status:	Settled September 2019
8.	Lawsuit Name:	Androscoggin Valley Regional Refuse Disposal District v. R. H. White Construction Co., Third-Party v. Sanborn, Head & Associates, CDR Maguire Inc., Electrical Installations, Inc., EII, Fuss & O'Neill, Inc., PSB Industries, Inc., Unison Solutions, Inc., CMA Engineers, Inc., Atlas Copco North America, LLC as successor to Houston Service Industries, Inc. and SCS Engineers
	Case Number:	115CV00434
	Date of Lawsuit:	November 6, 2015
	County/State Filed:	U.S. District Court for the District of New Hampshire
	Parties Involved:	Androscoggin Valley Regional Refuse Disposal District, R. H. White Construction Co., Sanborn, Head & Associates, CDR Maguire Inc., Electrical Installations, Inc., EII, Fuss & O'Neill, Inc., PSB Industries, Inc., Unison Solutions, Inc., CMA Engineers, Inc., Atlas Copco North America, LLC as successor to Houston Service Industries, Inc. and SCS Engineers
	Claim:	Breach of Contract claim by AVRRDD and counterclaim by defendant against AVRRDD and all engineers involved in project.
	Status:	Settled February 2018
9.	Lawsuit Name:	Stearns, Conrad and Schmidt, Consulting Engineers, Inc. v. Cream's Dismantling, Inc.
	Case Number:	257198
	Date of Lawsuit:	May 21, 2015
	County/State Filed:	Superior Court of the State of California for the County of Sonoma
	Parties Involved:	SCS Engineers; Cream's Dismantling, Inc.
	Claim:	Collection Action
	Status:	Settlement agreement and confession of judgement with payment to SCS
10.	Lawsuit Name:	Kenosha Newco Capital, LLC v. ABC Insurance Company, et al. and AMCON Design and Construction Co., LLC v. Uptown Brass Development, BT2, Inc. et al.
	Case Number:	14 CV 1276
	Date of Lawsuit:	February 2015
	County/State Filed:	Kenosha, Wisconsin
	Parties Involved:	Kenosha Newco Capital, LLC, ABC Insurance Company, The Kubala Waschatko Architects, Inc., GHI Insurance Company,

		AMCON Design and Construction Co., LLC, Uptown Brass Development, LLC, Robert Niebauer, Lawrence Kilduff, Thomas R. O'Brien, Conrad Accola, BT2, Inc., Vulcan Roofing & Siding, Precision Plastering, Inc., Masonry Specialists II, LLC, Contract Glass & Partitions, Inc., A.W. Oakes & Son, Inc., Northern Landscape Construction, Swederski Concrete Construction, Inc.
	Claim:	Buyer of property at foreclosure sued contractor and numerous other parties for claims related to design and construction. Contractor filed 3rd party claim against BT2 (acquired by SCS) and others for contribution.
	Status:	Settled October 2016
11.	Lawsuit Name:	Stearns, Conrad and Schmidt, Consulting Engineers, Inc. vs. Theodore L. Vallas
	Case Number:	37-2015-00002972-CU-BC-CTL
	Date of Lawsuit:	January 26, 2015
	County/State Filed:	California Superior Court for the County of San Diego, North County District
	Parties Involved:	SCS Engineers; Theodore L. Vallas
	Claim:	Collection Action
	Status:	Settlement September 2015 with payment to SCS
12.	Lawsuit Name:	Daniel L. Schriner, etc., et al vs. Presto Oil, Inc., et al. including Stearns Conrad and Schmidt, Consulting Engineers, Inc.
	Case Number:	2014-CV-269
	Date of Lawsuit:	November 10, 2014
	County/State Filed:	State of Kansas, District Court of Douglas County
	Parties Involved:	Presto Oil, Inc.; Presto Convenience Stores, LLC; Presto Convenience Store #25, LLC; Terry Presta; Panty, Inc.; Larsen & Associates; SCS Aquaterra; Dan Schriner; Sally Hare-Schriner
	Claim:	Trespass, nuisance and negligence
	Status:	Dismissed without Prejudice February 2015
13.	Lawsuit Name:	The Crossing Condominium Unit Association, Inc. vs Apple Tree – Fitchburg, LLC and Stearns, Conrad and Schmidt, Consulting Engineers, Inc.
	Case Number:	14CV1901
	Date of Lawsuit:	July 3, 2014
	County/State Filed:	State of Wisconsin, Circuit Court, Dane County
	Parties Involved:	The Crossing Condominium Unit Association, Inc., Apple Tree – Fitchburg, LLC and Stearns, Conrad and Schmidt, Consulting Engineers, Inc.
	Claim:	Claims related to storm water issues.
	Status:	Settled October 2015

14.	Lawsuit Name:	Colleen Martinez vs Jennifer Anne Rovezzi; Stearns, Conrad and Schmidt, Consulting Engineers, Inc.
	Case Number:	D-1116-CV-2014-00315
	Date of Lawsuit:	June 27, 2014
	County/State Filed:	District Court: Eleventh Judicial District, San Juan County, New Mexico
	Parties Involved"	Colleen Martinez, Jennifer Ann Rovezzi, Stearns, Conrad and Schmidt, Consulting Engineers, Inc.
	Claim:	Claim related to automobile accident
	Status:	Settled
15.	Lawsuit Name:	Berdysz v. Boyas Excavating, Inc., et. al.; Baczkowski v. Boyas Excavating, Inc., et. al.
	Case Number:	CV 14 826410; CV 09 712005
	Date of Lawsuit:	May 6, 2014
	County/State Filed:	In the Court of Common Pleas, Cuyahoga County, Ohio
	Project Name:	City View Center
	Project Location:	Garfield Heights, Ohio
	Claim:	Nuisance claim by property owners against the developers of an adjacent shopping center developed on a landfill, and developer's technical consultants.
	Status:	Settled May 2016
16.	Lawsuit Name:	BioFuels Point Loma, LLC v. SCS Energy; Safeco Insurance Company
	Case Number:	37-2014-00013708-CU-BC-CTL
	Date of Lawsuit:	April 30, 2014
	County/State Filed:	Superior Court of California, San Diego County
	Project Name:	Point Loma BUDG Facility
	Project Location:	San Diego, California
	Claim:	Claim against SCS Energy for negligence in connection with its design, construction, maintenance and operation of bio-gas treatment facility that was damaged by fire.
	Status:	Settled September 2015
17.	Lawsuit Name:	Amin Ahrari v. David Evans, SCS Field Services
	Case Number:	RG14715536
	Date of Lawsuit:	March 19, 2014
	County/State Filed:	Superior Court of California, Unlimited Jurisdiction, County of Alameda
	Parties Involved"	Amin Ahrari, David Evans, SCS Field Services
	Claim:	Claim related to automobile accident
	Status:	December 2015 Dismissed with Prejudice

18. Lawsuit Name: William Kilpatrick v. Lee County Landfill, Republic; SCS Engineers, et al
    Case Number: 2013-CP 31 346
    Date of Lawsuit: December 2013
    County/State Filed: Lee County, South Carolina
    Project Name: Lee County Landfill
    Project Location: Lee County, South Carolina
    Claim: Personal injury claim by employees of contractor working on site where SCS was providing services.
    Status: Settled August 2015

19. Lawsuit Name: Jeremy Rogers v. Lee County Landfill, Republic; SCS Engineers, et al
    Case Number: 2013-CP 31 346
    Date of Lawsuit: December 2013
    County/State Filed: Lee County, South Carolina
    Project Name: Lee County Landfill
    Project Location: Lee County, South Carolina
    Claim: Personal injury claim by employees of contractor working on site where SCS was providing services.
    Status: Settled August 2015

20. Lawsuit Name: Onebeacon Ins. Co. v. Vilter Mfg. LLC, SCS Energy, et. al.
    Case Number: 37-2013-00043303-CU-PL-CTL
    Date of Lawsuit: April 9, 2013
    County/State Filed: Superior Court of California, San Diego County
    Project Name: Point Loma BUDG Facility
    Project Location: San Diego, California
    Claim: Claim against equipment manufacturer for products liability and negligence, and against SCS Energy for negligence in connection with its design, construction, maintenance and operation of bio-gas treatment facility that was damaged by fire.
    Status: Settled September 2015

Appendix D

Outreach Sample Work

TV Storyboard

DEPARTMENT OF PUBLIC UTILITIES WATER CONSERVATION
"FLAMINGO - 3 DAY WATERING SCHEDULE"
:30 TV SPOT CONCEPT

7589 N Wilson Ste 103 / Fresno
2110 K St / Sacramento
559.438.2180 / jpmktg.com

MUSIC: HAPPY, FOLKSY, LIGHT

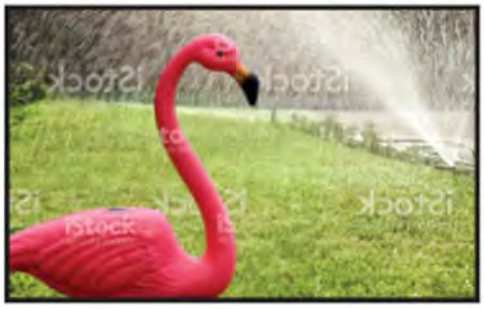
VISUAL: WIDE SHOT OF QUAINT, GREEN, LOVELY YARD FILLED WITH ADORABLE LAWN ORNAMENTS

VISUAL: SPRINKLERS COME ON, MID-DAY, TO LAWN ORNAMENTS DISMAY. CUT TO SHOT OF PINK, PLASTIC FLAMINGO IN YARD

FLAMINGO: **"WHY THE STONE FACE, GNOME??"**

VISUAL: CUT TO CEMENT GARDEN GNOME

GNOME: **"LOOKS LIKE SOMEONE FORGOT TO RESET THE SPRINKLER TIMER FOR SUMMER."**



VISUAL: CLOSE-UP OF FLAMINGO

FLAMINGO: **"THAT REALLY RUFFLES MY FEATHERS. I MEAN...IF I HAD ANY FEATHERS..."**

DEPARTMENT OF PUBLIC UTILITIES WATER CONSERVATION
"FLAMINGO - 3 DAY WATERING SCHEDULE"
:30 TV SPOT CONCEPT

7589 N Wilson Ste 103 / Fresno
2110 K St / Sacramento
559.438.2180 / jpmktg.com

VISUAL: CUT TO CHEESY FIGURAL WIND CHIME

WIND CHIME: "MIND IF I CHIME IN?"

VISUAL: CLOSE-UP OF GNOME GETTING SPRINKLERED ON

GNOME: "PLEASE...I'M GETTIN' SOAKED OVER HERE!"

VISUAL: BACK TO WIND CHIME

WIND CHIME: "CHANGING YOUR TIMER IS EASY!"

VISUAL: 3 GRID SHOTS OF SPRINKLERS, TIMERS, HOME ADDRESSES & GRAPHICS ROTATING THROUGH ANNOUNCER

GRAPHIC: LIST WATERING SCHEDULE DAYS

VO: SUMMER'S HERE! WHICH MEANS ODD NUMBERED ADDRESSES WATER ON TUESDAYS, THURSDAYS AND SATURDAYS. AND EVEN NUMBERS WATER ON WEDNESDAYS, FRIDAYS AND SUNDAYS. NO WATERING BETWEEN 9AM AND 6PM, AND NEVER ON MONDAYS!

DEPARTMENT OF PUBLIC UTILITIES WATER CONSERVATION
"FLAMINGO - 3 DAY WATERING SCHEDULE"
:30 TV SPOT CONCEPT

7589 N Wilson Ste 103 / Fresno
2110 K St / Sacramento
559.438.2180 / jpmktg.com

VISUAL: CLOSE-UP OF YARD ORNAMENT TOAD

STONE TOAD: **"REEEE-SET, REEEE-SET..."**

Billing Insert

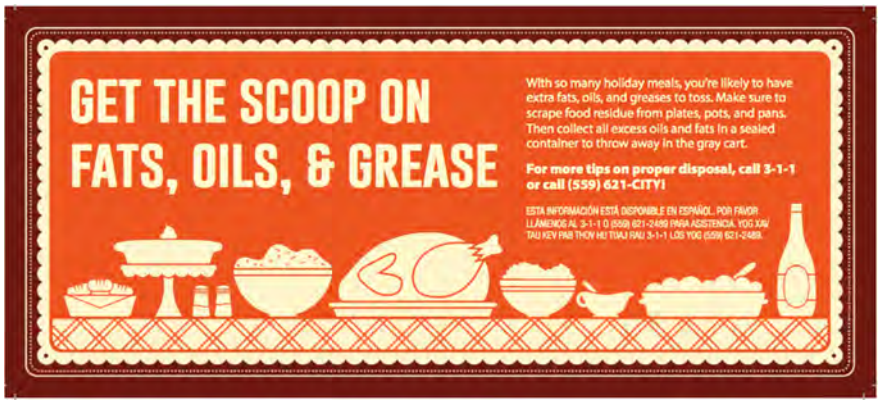
2. Fresno City also needed our help with a Public Information Program for the Wastewater Management Division.

The Wastewater Management Division of the Department of Public Utilities provides sanitary sewer collection system maintenance services for the City of Fresno. Additionally, it provides treatment, reclamation and recycled water services to Fresno, Clovis and unincorporated areas of Fresno County. The public information program educates the community about keeping sewer lines clean by salinity education; proper disposal of waste including fats, oils and grease; wastewater treatment and reclamation; recycled water; by-products reuse; environmental protection, and additional focus on the following education opportunities for residents:

- Developing community recognition of the valuable service provided
- Recycled water benefits and encouraging the use of recycled water where available
- Environmental regulations and legislations affecting the wastewater collection system and treatment process and their effect on the economic vitality of the region
- Pollution prevention and best management practice components that can help in the maintenance of clean sewer lines, treatment and reuse of wastewater, and protection of the environment
- Maintenance and asset rehabilitation and replacement for the treatment facility and collection system

The City of Fresno's Wastewater Management Division is one of the most highly regarded programs in the state, if not the nation. Yet the general public understands little regarding how important and well-managed Fresno's wastewater is. JP's role with the Wastewater Division has been to educate residents about the "hows" and "whys" of what happens when their used water goes down the drain.

November Statement Insert



September Statement Insert

Social Media Images

3. Finally, JP developed a monthly utility bill insert to be sent to customers once a month.

For this objective, JP designs and prints a utility bill insert to be mailed to a third-party mail house for insertion into the monthly municipal utility bill. The insert highlights the importance of reliable and cost-effective utility service, while allowing each of the operating divisions to present timely public information regarding their specific programs and announcements.


Can I Recycle This?
We've Got the Answers!
Post a picture of your recycling questions to your Instagram, use the hashtag #KeepFresnoClean and tag @FresnoDPU. We'll let you know what goes in the blue cart and how to dispose of what doesn't. Together, we can #KeepFresnoClean!
For more recycling do's and don'ts,
visit KeepFresnoClean.com!
Follow Us on Instagram
@FresnoDPU
City of FRESNO


2-DAY OUTDOOR WATERING SCHEDULE RETURNS
STARTING SEPTEMBER 1
Mark your calendars: the two-day outdoor watering schedule is back! Starting September 1, you will only be able to water two days a week.
Addresses Ending in ODD Numbers (1, 3, 5, 7, 9) - Tuesdays and Saturdays
Addresses Ending in EVEN Numbers (0, 2, 4, 6, 8) - Wednesdays and Sundays
Watering is not allowed on Mondays, Thursdays, Fridays & daily from 9 a.m. - 6 p.m.
For questions, contact
waterconservation@fresno.gov
or call (559) 621-5480.
City of FRESNO

Appendix E

Sample Reports

RecycleSmart JPA
Commercial Recycling Assistance
Fiscal Year 2017/18
FINAL Report

Central Contra Costa Solid Waste Authority
(DBA RecycleSmart)
1850 Mt. Diablo Blvd., Suite 320
Walnut Creek, CA 94596
925-906-1801

SCS ENGINEERS

01217225.00 | June 29, 2018

7041 Koll Center Pkwy, Suite 135
Pleasanton, CA 94566
925-426-0279

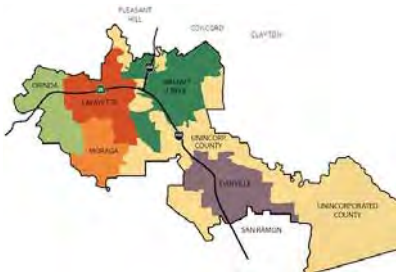
Table of Contents

Tables

Appendices

1 INTRODUCTION

The Central Contra Costa Solid Waste Authority (RecycleSmart) contracted with SCS Engineers (SCS) to provide commercial recycling and organics assistance to all cities within the RecycleSmart area. The RecycleSmart service area, also known as the Joint Powers Authority (JPA) includes Unincorporated Contra Costa County, and the cities of Danville, Lafayette, Orinda, Moraga and Walnut Creek). The primary objectives of the project were to increase recycling and organics participation, reduce waste volumes, and increase levels of non-contaminated diversion volumes throughout each service area, while maintaining equity among the member agencies.



SCS was committed to executing proven outreach techniques, reinforcing key messaging, working diligently to remove barriers and obstacles to participation, and carefully managing data, schedules, and reporting. During the 2017/18 fiscal year, the **SCS team visited 843 businesses, trained 454 businesses, and added 6.32 cubic yards (cy) of new weekly recycling diversion, 24.92 cy of new weekly organics diversion, and reduced trash service by 17.07 cy a week.**

This project supplemented efforts performed by Republic Services (Republic) and RecycleSmart staff by providing additional recycling and organics diversion assistance to businesses. The process undertaken by SCS and the results from this assistance are documented in this report, including highlights of successes and challenges, analysis of the data from the follow-up audits and weight records, and recommendations for next year.

2 BUSINESS RECYCLING ASSISTANCE METHODOLOGY

The business recycling assistance was performed by experienced recycling specialists. The process included establishing a target list of businesses, preparing for the field work, performing the site visit, and documenting the results of the site visit. The following sections describe the steps undertaken to perform the business recycling assistance.

Target List

Using customer data provided by RecycleSmart and Republic, SCS created a target list of high priority businesses from the 2,093 businesses[1] in the authority service area. The businesses were organized according to the priorities identified by RecycleSmart, which include businesses that:

- Have not been visited;
- Need additional training or assistance;
- Do not currently subscribe to recycling or organics services with Republic;

[1] *Number of businesses provided in the 2017 Request for Proposals document, and used for deciding the number of businesses to visit in each service area. Republic reported the number of businesses within the service area on a monthly basis, which fluctuated over the course of the project.*

- Have been identified as needing greater capacity for recycling or organics service than the bin provides;
- Have recycling in trash or major overflow problems;
- Have large volumes of contamination in recycling or organics; or
- Have large volumes of weekly collection capacity.

The target list was developed considering the need to provide equal coverage and similar levels of outreach and assistance among the RecycleSmart cities. The number of businesses within each city, the number of businesses in each city as a percentage of the total number of businesses in the RecycleSmart service area, and the number of businesses that were targeted in each city during the 2017/18 project are provided in **Table 1.**

Table 1. Business Targets for each Member Agency

Member Agency:	Number of Businesses within Agency	% of RecycleSmart Service Area	Number of Businesses on Target List
County	96	7%	56
Danville	398	17%	136
Lafayette	320	15%	120
Orinda	129	7%	56
Moraga	126	7%	56
Walnut Creek	1,024	47%	376
Total	**2,093**	**100%**	800

As part of the development of the new target list, SCS added businesses in the Unincorporated, Danville, Lafayette, Orinda and Moraga areas that are new Republic accounts and have not received technical assistance. Additional assistance was provided to businesses that were visited in the 2016/17 project if requested by Republic or RecycleSmart, or fell within the criteria mentioned above. Republic is required to visit all 2,093 businesses each year, and SCS provided recycling technical assistance to 1,200 businesses in 2016/17 and 2017/18. Given that most of these accounts were visited during the past year (exclusive of new businesses), we gave priority to businesses that have not yet been visited, required additional assistance, or had high diversion potential.

SCS reviewed the target list in conjunction with the Walnut Creek Commercial Recycling Assistance Project to confirm the businesses were not visited under either project. The following was performed when finalizing the business target list:

- Businesses within the City of Walnut Creek all needed to be visited according to the number of targets required for both the JPA and Walnut Creek Commercial Recycling Assistance projects. When deciding on how best to split the Walnut Creek businesses, SCS divided them according to geographic area, and assigned an equal number of strip malls and large businesses to each project.
- Businesses that generated a high percentage of food waste were added.

- Schools, City can service, municipality services, and multi-family dwellings were removed from the list.

- Businesses receiving recycling assistance from Republic staff within the first three months of the Fall were highlighted and visited in the Spring. Throughout the project, Republic provided their target lists to SCS staff, who updated the spreadsheet and visited businesses a few months before or after depending on the appropriate timing to maximize and support Republic technical assistance.

- In order to be most effective and resourceful, careful management of the targets for all projects (Recycling Assistance JPA and Walnut Creek projects) was necessary. Throughout the project, all team members conferred with each other and the Google Docs to provide updates, reduce any overlap, and avoid multiple staff visiting the same business.

Field Work Preparation

Prior to a site visit, business account lists were distributed in large groups to staff, based on local postal codes. Geo-mapping tools, such as BatchGeo.com, were also used to transform account data into a visual map so staff could efficiently schedule and route their work.

In order to prepare for the site visits, SCS confirmed with RecycleSmart which outreach materials were to be distributed, and which containers could be provided. This included preparation of a letter explaining the purpose of the site visits, and development of a custom form for SCS team members to use to collect data when out in the field.

SCS worked with RecycleSmart to understand what information was necessary to capture while out in the field, and placed this information in a spreadsheet for tracking all activities. This spreadsheet was uploaded to Google Docs, and available for viewing by Republic and RecycleSmart staff. The Google Docs allowed outreach staff to access notes on any account from their phone or tablet while out in the field. This also allowed staff to work together in the same document at the same time. Prior to going out into the field, the business service level and contact information was placed in the spreadsheet. The spreadsheet was set up in order for the field staff to collect the following information when visiting businesses:

- Date and type of contact made for each business.

- Date of site visit.

- Number of businesses in complex sharing containers.

- Date SCS staff sent the recommendations form to Republic.

- Confirmation that Republic delivered bins or made changes.

- Confirmation that slim jims and deskside bins were issued.

- Date of training, if received.

- Date of door-to-door outreach, if received.

- Date of follow up visit.

- Addition of recycling or organics service, by weekly volume increase.
- Reduction in trash service, by weekly volume decrease.
- Compliance with the RecycleSmart Mandatory Commercial Recycling ordinance (MCR) and AB 341 (i.e. do they currently recycle, note if the business does not want to recycle and why).
- Compliance with AB 1826 (i.e. what threshold they fall under: four or eight cubic yards of organics material a week, four cubic yards of trash).
- Potential code violations.
- Whether business was transferred to Republic or RecycleSmart for additional assistance.

The SCS Central Desktop was developed for use by all project staff for storage of photos, recommendation reports, and all outreach material. This cloud based system allowed the project team, including RecycleSmart and Republic staff, to upload or download information. This enabled sharing of documents whenever needed. The Google Doc spreadsheet was used in tandem to collect data and provide a summary of site visit activities.

Additionally, Republic paid for a database to be developed by The Recyclist for use in tracking technical assistance activities. In March 2018, Republic provided SCS staff capabilities to view service levels and comments for each account. This assisted the SCS team to update service levels and to confirm when Republic staff visited or planned to visit businesses, so there was no overlap.

Site Visit Protocol

SCS staff visited targeted businesses (without an appointment) to conduct a site visit with the business owner, manager, or decision-maker responsible for property management matters. For those businesses willing to cooperate with our request, SCS performed a waste assessment and discussed potential service changes, program implementation, and the necessary steps to a successful and lasting recycling program with the decision maker. If the waste assessment could not be accomplished during the impromptu visit, SCS scheduled an appointment to return to perform the site visit. A telephone call was sometimes necessary to achieve this, depending on the location of the decision-maker. If an appointment was scheduled, SCS staff sent an email to the business confirming the appointment and providing explanatory information.

Site Visit Activities

The following activities were included in the Site Visit:

- Performed a visual characterization of each container on-site in order to learn what material could be recycled and what purchasing decisions the business might consider to make their purchases more sustainable and/or recyclable.
    - Visited business the day before waste service.
    - Verified trash and recycling container sizes and the fill levels of each.

  - Observed the contents of each commercial waste bin and estimated the composition by volume of each material type, and estimated the additional recycling potential from waste,
  - Observed the contents of each commercial recycling bin and estimated the fill level of each, noted the percentage of contamination, and evaluated if right-sizing of container(s) was needed.
  - Documented third party vendor information, including service provider name, container size, and type of materials collected.
  - Noted the presence of scavengers, if seen, including the types and quantities of materials being scavenged and the types of vehicles being used.
  - Identified additional customer service needs and other special features that were a priority.
  - Noted large volumes of material that could be recycled or reused. For example, in association with Resource Area for Teachers (RAFT).

- Performed a waste assessment, which consisted of a walkthrough with the manager or owner of the front-of-house (FOH) waste collection, back-of-house (BOH) waste collection, and outside garbage and recycling bins. During the walk-through, data was gathered regarding baseline waste types and quantities, and material collection infrastructure.

- Identified opportunities for the business to effectively participate in the recycling program, as well as discussed any infrastructure and education needs. This included identifying what interior bins were needed to be purchased or supplied by Republic, and the location(s) for these bins. This discussion included sharing our recommendations for a customized waste prevention and recycling collection process, realistic diversion goal estimates, realistic cost savings, and the free multi-lingual support available: training sessions, signage and collateral, referrals, and other support activities.

- Discussed program details, rate incentives, proposed service changes, the implementation process, and any concerns the business may have in participating in the program.

- Formalized the proposed service changes for approval by the business and confirmed the proposed service changes with Republic (i.e. container placement and enclosure access).

- Notified the business and Republic, via email, of the schedule and next steps for implementing service changes.

If a business was found to be diverting recyclables on their own (i.e. self-haul or 3rd party vendor), this was documented, a Self-Haul Reporting Form was provided, and details were reported to RecycleSmart.

Recommendation reports were completed if there was a change to the businesses recycling, organics or trash service, and saved, along with any photos, in a folder on the SCS Central Desktop. All details, regardless of whether a recommendation report was filled out, were saved on the spreadsheet in Google Docs.

Most targeted business that began recycling or organics services during the project received a follow-up visit one month after their recycling service was implemented. The purpose of the follow-up visit

was to confirm delivery and use of recycling containers, assess if any additional outreach or training was needed, and speak with the business's decision maker(s) to see how the overall recycling program is working for them. Any red flags or immediate needs were discussed with RecycleSmart and Republic to define next steps.

Monthly Updates

SCS provided monthly updates to RecycleSmart staff to inform of progress made on the number of businesses visited, the number of businesses that did not comply with MCR and AB 1826, the number of changes to recycling services, and the volume of increased recycling diversion and decreased landfill numbers. All updates were provided in a summary spreadsheet distributed with the monthly invoice. In the last few months of the project, weekly phone updates along with a general overview of target numbers were discussed, which provided RecycleSmart with up to date information on the status of the project.

3 RESULTS

SCS captured specific information during the site visits, and regularly placed the information on the Google Docs spreadsheet in order to provide a live feed for updates. This spreadsheet includes the full target list for each member agency, a worksheet that highlights those businesses where recycling assistance has been completed, or are still in process and awaiting the final follow up, and a summary page with results. The overall summary of results of the 2017/18 JPA Commercial Recycling Assistance Project are included in this section.

The project goal was to visit 800 businesses between September 2017 and June 2018. The site visits began in September 2017, and it was estimated that 88 businesses would be visited each month (September 2017 to May 2018). There was a consistent flow of visiting businesses, with the bulk of the businesses visited from September to January. SCS staff completed visiting businesses at the end of May 2018, to provide time to finalize data and write the report.

Overall, SCS was able to perform site visits to 843 businesses during the time period, which was an additional 43 businesses above the agreed upon target. The result was an increase in the number of businesses visited than was required. In Table 2, the number of businesses that were anticipated to receive visits are compared to the number of businesses that were visited.

Table 2. Number of Businesses Visited by Member Agency

City:	Number of Businesses Targeted for Visits	Actual Number of Businesses Visited	Difference
County	56	59	+3
Danville	136	136	0
Lafayette	120	127	+7
Orinda	56	65	+9
Moraga	56	56	0
Walnut Creek	376	400	+24
Total	800	**843**	**+43**

Additionally there were 53 businesses that received a follow up visit and 454 businesses that received recycling or organics training. **Table 3** shows the number of businesses that implemented recycling and organics services, along with the weekly cubic yard increase, and reduction in trash volume. The amount of increased recycling and organics diversion is low in comparison to the 2016/17 RecycleSmart JPA project. There are three reasons for this. First, Republic staff visited every business in the authority, every year for the past three years, with RecycleSmart and SCS staff visiting half of the same businesses. Due to the extensive efforts provided to the businesses for recycling and organics technical assistance and the good job implementing recycling, a majority of the businesses subscribe to recycling and/or organics services with Republic. Also, with Republic staff visiting every business, many of the sites that SCS visited was after Republic, who may have already changed service levels. This would mean that the visit that SCS staff performed, was to provide additional follow up services, however may not have required changes to service levels or increasing recycling and organics diversion. Lastly, although the numbers appear light in the report, it should be noted that Republic may have increased business recycling or organics service levels, however it is not documented in this report. The same is true if a business uses a 3rd party recycler or self-hauls material to a processor for recycling or composting, those diversion numbers are also not included.

Although, businesses received recycling technical assistance from RecycleSmart, Republic and SCS staff over the past three years, there is a lot of improvement that still needs to be made with businesses. Working with the businesses to get them to use the recycling and organics services is critical to increasing diversion. Not all businesses are using the recycling and organics services correctly, and with further assistance, focus can be made on getting businesses to recycle more and recycle right. This includes decreasing contamination, getting businesses to recycle the proper material, and improving the ability to get recycling and organics out of the trash and into the correct bin. Recommendations are made in Section 7 to discuss options on how to continually improve diversion numbers.

Table 3. New Recycling and Organics Diversion

Number of Businesses that Implemented Recycling	New Weekly Recycling Diversion	Number of Businesses that Implemented Organics	New Weekly Organics Diversion	Reduction in Trash Volume
33	6.32 cy	24	24.92 cy	17.07 cy

As part of the information collected, SCS documented if the business was in compliance with RecycleSmart's Mandatory Commercial Recycling ordinance (MCR) and Assembly Bill 1826 (mandatory organics). **Table 4** shows the total number of businesses that comply or do not comply with the mandatory regulations.

Table 4. Compliance with MCR and AB 1826

MCR Compliant	Not MCR Compliant	AB 1826 Compliant	AB 1826 Not Compliant
826	17	351	149

As indicated in Table 4, there are 826 businesses that are MCR compliant and 17 businesses that are not compliant. There are 351 businesses that are compliant with AB 1826, and 149 businesses that did not have organics services. There are 843 businesses total, with 500 that have been marked as

one of the two categories listed above. The remaining 343 businesses did not generate organic material, were no longer in business, or did not have 4 cubic yards of weekly trash, and fall outside of the current AB 1826 requirement for businesses.

SCS completed recycling assistance for 750 businesses. There are 93 businesses remaining that still need some type of assistance such as delivery of containers, training, or follow up. This work should be continued during the 2018/19 JPA Recycling Assistance project.

4 WEIGHTS

RecycleSmart wanted to find a different metric for measuring efforts on recycling and organics diversion that could be presented in a manner that made it easy to report information to their Board of Directors. In support of this effort, Republic placed scales on their commercial front load recycling trucks, and began collecting weights from recycling front load bins when servicing the containers. RecycleSmart requested that SCS review and analyze these weights to understand if the weights can provide details on the success of the recycling program.

At the beginning of the project, SCS was to select 140 commercial businesses (between the JPA and Walnut Creek projects) that appeared to be good targets for this information. However, after reviewing the September, October and November weight data, it was obvious that not every business selected, received weights each month. This was due to the scale not capturing weights for bins, driver error, or the commercial recycling truck was in the shop for maintenance and a separate truck without a scale was used.

After review of the September, October and November weights, SCS looked at which containers were weighed consistently over those three months, and tracked those 271 businesses from September 2017 to May 2018. The baseline weight data began in September 2017 with 271 business' containers receiving weights that month, and concluded in May 2018 with SCS selecting 186 businesses because they were visited under the RecycleSmart JPA project, with the other 55 businesses under the RecycleSmart Walnut Creek project.

The methodology for measuring weights included averaging the weights for the business over the number of service days the business received a weight from the truck scale. These averages were used to compile Table 5. The numbers in Figure 1 below included combining all of the average weights for each business, by each member agency service area, in order to understand the total average volumes of recycling that was weighed.

Table 5 shows 186 businesses received weights each month, of which 126 businesses received weights and technical assistance, with 62 businesses increasing their recycling weights after receiving technical assistance. The average percentage of businesses that improved their recycling weights after technical assistance was 51%, which ranged from 30% of the businesses in Lafayette to 82% of the businesses in Danville increasing recycling weights.

Table 5. Results from Weights Received by Truck Scale

Area	Number of Businesses Tracked from September 2017 to May 2018	Number of Businesses Receiving TA and Weights	Number of Businesses with Increased Recycling Weights After Receiving TA	Number of Businesses That Did Not See an Increase in Weights After Receiving TA	Number of Businesses That Did Not Receive Weights	Percent of Businesses that Improved with TA
County	10	4	2	1	1	50%
Danville	23	17	14	3	0	82%
Lafayette	33	23	7	16	0	30%
Moraga	20	9	4	4	1	44%
Orinda	19	12	6	4	2	50%
Walnut Creek JPA	81	61	29	20	12	48%
Total	**186**	**126**	**62**	**48**	**16**	**51%**

For details on businesses weighed, refer to **Appendix A.**

5 CASE STUDIES

There were three businesses that stood out to SCS staff as exemplary models for "can do" attitude and working diligently to improve their recycling and organics programs. They are First Republic Bank, Moraga UPS, and Nissan of Walnut Creek, all of which are highlighted below.

Caffino

Caffino, located at 3483 Mt. Diablo Blvd, Lafayette, has done an excellent job recycling. SCS staff visited this business in September 2017 and spoke with the on-duty manager and the barista. There were designated interior receptacles for bottles/cans and clean paper. SCS staff provided training and educational material to further clarify items that can be recycled. Even though this business does not subscribe to organics collection service due to its small size and modest generation of compostables, employees return spent coffee grounds to their original foil pouches to donate to customers for garden use!

First Republic Bank

First Republic Bank, located at 1400 Civic Drive in Walnut Creek, had a 2 cy trash bin that was serviced five times per week. This site was selected for right-sizing service, based on previous experience with similarly-sized banks that have less than half of this capacity. During the site visit, SCS staff was given

the contact information for the bank representative, and our email was forwarded to the Regional Manager who had assisted in rolling out organics collection with their San Francisco branch offices. This allowed for an informed conversation with the Regional Manager regarding the 2019 AB 1826 requirement for businesses with 4 cubic yards or more of weekly trash service. After review of the business' services, it was recommended to right-size their trash and roll out organics services. The bank was thrilled to learn they could save money with the change in services. With our assistance, it was decided to reduce trash collection service from 5 to 3 days per week, increase recycling capacity from one to 3 times per week, and introduce (2) 64 gallon organics carts for the food and food-service items from their break rooms, to be serviced once per week. Two trainings were scheduled for staff, and one for their janitorial team, which took place all on the same day (the janitorial training was led in Spanish). A follow up visit was performed, and it was noted there was a lot more diversion, and the janitorial service and bank staff were on board with the new program. It is often difficult to work with businesses that have a headquarters or a manager in a different location, however this business stood out not only for their willingness to change services to comply with regulations, but also their ability to quickly respond to the requests and changes..

Hakam Misson

Hakam Misson, located at 790 San Ramon Valley Road in Danville, has made great strides to increase recycling and organic material collection. SCS staff worked with all businesses at this complex, each of which had a separate Republic Services account. At this site, there were only two organics carts for the four businesses in the complex, and the account for Hakam Misson did not have an organics cart even though their trash was 50% full of yard waste. SCS staff met with management and presented them with the pictures taken during the site visit, and provided recommendations for service level adjustments. The business admitted they threw cardboard into the trash container when the recycling bin was full, and were thankful for the free assistance so they could increase recycling capacity by one yard per week, as well as introducing two organics carts for their yard waste. In addition to the introduction of organics collection at Hakam Misson, an increase of organics collection at Baramoodi (one of the other tenants) transpired, and a draft email that could be forwarded to all employees informing them to place food, food-soiled paper and yardwaste in the new organics carts was provided.

Home for Jewish Parents

Home for Jewish Parents, located at 4000 Camino Tassajara, proved to be solidly committed to waste reduction. This institution is a large scale housing facility for 180 senior citizens. The Environmental Services Manager was very knowledgeable and extremely devoted to training his staff on sorting their waste. The clean compost and recycling bins demonstrated the successful efforts and dedication to sustainability.

Moraga UPS Store

Many small business managers care greatly about the environment and want to do the right thing, but do not have time to research and follow through with tasks such as changing their trash and recycling service. The Moraga UPS store located at 1480 Moraga Road is a good example of this fundamental need of small businesses. The manager of the UPS store was already training staff on recycling and doing a great job sorting waste, and was very proud that they would take customer waste like used Styrofoam peanuts and bubble wrap and reuse them. However, there were still a lot of recyclables going into the garbage cart because there was not enough service. The store manager was not aware that recycling is offered at no additional charge, and that it was easy to change service. The RecycleSmart technical assistance program helped make the process easy and effortless for her. For those small businesses that want to do the right thing, the RecycleSmart program is key in initiating change that could otherwise be overlooked.

6 LESSONS LEARNED

As with any project, there are lessons learned that can be changed or revised to improve the project in following years. SCS has identified a number of lessons learned for consideration for the 2018/19 JPA Recycling Assistance project.

- **Develop relationships with property management:** Small office buildings with "No Solicitation" signs are the most difficult to visit, because they are more likely to be leery of unannounced visits and less responsive to directives not coming from their property management company. For these locations, it may be more useful to forge deeper relationships with the property management companies, and have information forwarded to the individual tenant businesses on an annual basis.

- **Train staff at Starbucks stores:** A special effort in training Starbucks staff is recommended, as most stores are not doing a good job sorting recyclables. This could be the result of Starbucks using their own recycling and composting rules, which may not be consistent with collection programs in the RecycleSmart service area. It would be recommended that someone from RecycleSmart and/or Republic Services make contact with Starbucks corporate representatives to explain that local rules may be different than what they had made universal for all their locations, regionally and/or statewide.

- **Distribute an anti-illegal dumping mailer:** Illegal dumping continues to be a huge issue in the RecycleSmart service area. In some locations, property management reported locked bins had been pried open and/or illegal dumping continued on the side of locked bins or enclosures. It is recommended that an anti-illegal dumping mailer and/or other outreach materials be distributed to residents and businesses in the service area.

- **Allocate more resources to national companies:** Many national banks and retail businesses indicated they are prevented from making any decisions (even if money was not involved) without having corporate approval. Allocating more resources to follow-up with the corporate offices of large national companies that have dozens of branches throughout Northern California would benefit the RecycleSmart program.

7 RECOMMENDATIONS

During the 2017/2018 project year, SCS exceeded the project goal of performing site visits at 800 businesses within the RecycleSmart service area. SCS field staff visited 843 businesses and increased recycling services by 6 cubic yards and 25 cubic yards of organic material from landfill. While we are satisfied with our performance to date, we do see the value in making some adjustments moving forward with the 2018/19 JPA Recycling Assistance Project. Our recommendations are outlined below:

- **Continue to improve Google Docs:** Review and simplify how Google Docs is used to aid document storage and sharing. Continue to improve the document to simplify this process and save time.

- **Use GIS to map businesses:** Improve scheduling efficiencies through Geographic Information System (GIS) mapping technology to develop target lists. Clustering site visits in tighter geographical areas and illustrating the site visit addresses on a map will save time.

- **Improve truck scales to receive weights consistently:** Weight data was better than found in the 2016/17 JPA Recycling Assistance project, however improvements could be made by Republic to their weight collection system so the containers receive weights on a more regular basis.

- **Develop a system to separate efforts between field staff:** Develop a better separation of labor between Republic and SCS staff. Republic is contractually required to visit all commercial businesses, and SCS visited 1,200 of those same businesses (half of the businesses in the service area), which created overlap for recycling assistance. Utilizing the Recyclist database helped SCS staff learn which Republic recycling coordinators visited or planned to visit businesses, however the Republic staff was unclear of who SCS was visiting. It would be helpful if Republic would allow SCS staff the ability to write comments in the Recyclist database so there is transparency and good communication on the project.

- **Identify businesses that are more complicated** and require extra time to increase diversion and decrease contamination. These businesses could include strip malls, large office buildings, chain restaurants, and other businesses that have more complex services or multiple stakeholders involved.

- **Train janitorial staff at office buildings:** Consider visiting office buildings with diversion potential, and have not yet received janitorial training or "door-to-door" outreach efforts to individual tenants.

- **Target businesses requiring coordination through corporate headquarters:** Businesses that require coordination with corporate headquarters, such as Safeway, Office Depot, and Dollar Stores, should also be targeted for additional and persistent follow up and assistance.

- **Target businesses not compliant with AB 1826:** Consider selecting businesses that are not compliant with Phase 3 of AB 1826 (4 cubic yards or more of weekly trash) and those marked as "failing" or "needs heavy assistance" in our tracking system.

- **Republic to provide referrals to SCS for additional training:** Consider requesting referrals from Republic staff for SCS staff to visit businesses that Republic may not have time to spend to train and work with the businesses staff or employees, to maximize diversion.

- **Consider adding enforcement and potential fines for businesses not recycling:** Many businesses are not engaged in recycling and if an enforcement component for compliance is added to the RecycleSmart service area, it is believed that businesses would take more time to ensure they are recycling with limited contamination. If RecycleSmart had the ability to levy surcharges or fees for contamination and non-compliance, this would add an additional level of push for the business to make sure and get things right.

- **Provide more interior recycling and organics bins:** It would be helpful to have access to more interior green and blue bins to provide to businesses. This helps the business be more successful in recycling.

APPENDIX A

RecycleSmart Project_Weight Records per Business Targeted

No.	Area	Site Name	Average PU Weight Before TA	Average PU Weight After Technical Assistance	Improvement	Total Weight per Business per Month for those RECEIVING TA									
						Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
						1	2	3	4	5	6	7	8	9	10
1	County	CENTURY MANAGEMENT COMPANY	60	191	no	200	496	130	220	230	240	380	0	1,830	0
3	County	ALAMO MEDICAL GROUP	279	134	YES	967	355	411	224	186	384	514	0	0	0
7	County	URBAN WEST BUILDING	178	No Data	No Data	1,550	817	990	1,850	2,350	1,970	1,860	0	1,995	0
9	County	BUSKIRK EXECUTIVE CENTER	186	150	YES	530	397	1,500	1,360	2,240	1,640	1,120	0	910	0
12	Danville	PEEKADODDLE ACADEMY OF DANVILL	71	65	YES	283	141	166	227	222	130	0	0	0	0
14	Danville	DANVILLE BOWLING	120	120	no	721	680	229	656	635	764	923	0	0	0
15	Danville	VALLERO SERVICE CENTER	158	97	YES	542	328	261	534	438	418	179	0	0	0
16	Danville	MY PAINT STOP LLC	222	200	YES	782	161	297	1,152	934	303	897	0	0	0
18	Danville	OAK COURT PROPERTIES	177	133	YES	642	695	310	157	83	268	233	0	0	0
21	Danville	ROESBERY CAR CARE-DV	167	138	YES	454	322	365	194	460	413	347	0	0	0
22	Danville	CHEZ NOEL	397	100	YES	3,946	683	524	929	0	86	301	0	0	0
23	Danville	RUSSELLO PROPERTIES LLC	196	95	YES	1,958	327	526	432	300	81	387	0	0	0
24	Danville	PET FOOD EXPRESS	193	115	YES	1,030	152	535	515	321	949	998	0	0	0
25	Danville	BARRINGTON COURT BKD024341 R&T	139	128	YES	768	624	605	507	443	588	366	0	0	0
26	Danville	CHICO'S	335	144	YES	2,011	2,279	1,402	720	394	1,051	1,357	0	0	0
27	Danville	SANORRIS INVESTMENTS LLC	379	192	YES	2,329	1,054	1,467	1,218	1,682	1,529	1,872	0	0	0
28	Danville	U P S	167	196	no	554	1,400	1,500	1,672	1,782	1,302	1,628	0	0	0
29	Danville	HOSPICE OF CONTRA COSTA FOUNDA	231	226	YES	2,155	1,710	1,874	143	767	1,372	1,241	0	0	0
30	Danville	G N VENTURES	208	137	YES	3,647	2,170	1,975	1,690	1,580	1,354	863	0	0	0
32	Danville	DH INVESTORS LLC	206	208	no	705	2,059	3,926	3,860	3,331	4,517	3,943	0	0	0
33	Danville	DANVILLE LIVERY & MERCANTILE	317	288	YES	3,809	5,554	6,174	8,849	6,563	8,633	7,655	0	0	0
36	Lafayette	COMPASS MARKETING	30	92	no	60	360	156	193	227	255	214	0	518	0
37	Lafayette	LESLIE'S POOL 0354 3YD REC	113	112	YES	340	320	176	298	75	161	307	0	447	0
38	Lafayette	CORAL POOL SERVICE	62	67	no	240	500	189	233	82	123	124	0	393	0
39	Lafayette	NUT FACTORY	92	112	no	220	440	197	589	242	129	181	0	52	0
41	Lafayette	PEDDER LAW GROUP	53	50	YES	320	360	257	263	313	95	143	0	154	0
45	Lafayette	PREMIER KITCHENS	100	42	YES	400	360	325	101	77	13	55	0	194	0
46	Lafayette	PEACOCK CONSTRUCTION	128	113	YES	320	380	343	403	353	231	274	0	260	0
47	Lafayette	KWIK STOP #2	131	133	no	420	780	355	351	355	330	259	0	757	0
48	Lafayette	G SCOTT HAISLET	53	71	no	160	200	364	265	134	148	220	0	159	0
49	Lafayette	CHEESE STEAK SHOP	193	162	YES	580	700	391	557	80	120	404	0	214	0
51	Lafayette	GEROW/E.C.	86	92	no	380	380	458	307	311	124	156	0	276	0
53	Lafayette	MCDONALDS	175	161	YES	700	1,140	565	1,363	456	556	974	0	1,818	0
54	Lafayette	JACK IN BOX	16	96	no	80	340	702	656	274	326	360	0	1,103	0
55	Lafayette	SERVICE OUTLET	393	460	no	1,180	540	740	0	0	0	0	0	0	0
56	Lafayette	SMOK'N BONES, LLC	91	178	no	1,220	560	834	1,225	188	1,700	1,532	0	3,504	0
57	Lafayette	DIABLO EAST ASSOC.	140	153	no	500	1,240	930	1,051	468	559	891	0	1,271	0
58	Lafayette	H.M. KRAMER PROPERTIES	186	205	no	660	620	1,013	801	598	496	383	0	758	0
59	Lafayette	LEMOS CENTER	303	208	YES	820	1,180	1,040	0	0	0	0	0	0	0
60	Lafayette	HAWS AUTO BODY	120	149	no	600	560	1,142	1,069	618	560	572	0	709	0
63	Lafayette	HIDEOUT KITCHEN(HALLMARK BLDG)	136	192	no	1,500	1,900	1,500	1,174	989	768	508	0	1,348	0
64	Lafayette	SWIFT REAL ESTATE PARTNERS	142	242	no	1,680	1,700	1,717	2,490	888	915	1,259	0	1,272	0
65	Lafayette	EL CHARRO MEXICAN RESTAURANT	250	331	no	2,500	2,540	1,791	2,504	2,084	1,297	1,292	0	2,652	0
66	Lafayette	POST OFFICE-CARRIER ANNEX	809	877	no	3,460	3,760	4,294	2,753	2,419	1,341	1,551	0	3,304	0
68	Moraga	NARASKY DALEY BOWERS	51	45	YES	200	200	167	132	79	101	122	0	144	0
70	Moraga	HOLY TRINITY CHURCH	108	112	no	380	700	286	375	413	154	462	0	342	0
74	Moraga	FILICE INSURANCE	88	75	YES	340	360	438	171	64	115	236	0	614	0

No.	Area	Site Name	Average PU Weight Before TA	Average PU Weight After Technical Assistance	Improvement	Total Weight per Business per Month for those RECEIVING TA									
						Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
						1	2	3	4	5	6	7	8	9	10
75	Moraga	MORAGA AUTO CARE INC.	59	73	no	580	300	448	422	362	376	612	0	465	0
78	Moraga	MORAGA PROFESSIONAL BUILDING	107	147	no	200	140	752	414	591	148	133	0	429	0
80	Moraga	RANCH HOUSE CAFE	147	123	YES	540	320	800	404	538	150	318	0	338	0
82	Moraga	MORAGA POST ACUTE	95	No Data	No Data	1,660	1,040	856	1,180	611	542	557	0	1,061	0
83	Moraga	AEGIS SENIOR CARE HOME	120	112	YES	820	640	893	1,156	573	439	629	0	887	0
85	Moraga	BERG SENIOR SERVICES LLC	175	200	no	1,300	1,420	1,648	1,388	868	696	1,954	0	1,659	0
89	Orinda	CHEVRON STATIONS CVN097407 CB	75	No Data	No Data	300	260	263	407	120	215	216	0	534	0
91	Orinda	TRH HOLDINGS	130	80	YES	260	760	298	149	244	131	46	0	254	0
92	Orinda	ALLEN & ASSOC OFFICE BLDG	91	88	YES	480	340	356	279	180	169	373	0	498	0
93	Orinda	MCDONNELL NURSERY	97	241	no	360	520	357	613	567	390	880	0	590	0
94	Orinda	ALTA BATES SUMMIT MEDICAL CTR	70	66	YES	620	440	463	561	379	207	337	0	381	0
96	Orinda	WELLS FARGO WFA199270 REC	150	78	YES	680	520	521	298	249	172	235	0	74	0
97	Orinda	BROOKWOOD PROPERTIES	112	109	YES	540	460	604	537	287	180	367	0	285	0
100	Orinda	HAIST PROPERTIES	76	91	no	460	800	709	1,078	356	370	463	0	437	0
101	Orinda	MAYA MEXICAN GRILL	92	No Data	No Data	640	1,000	865	521	275	434	578	0	662	0
102	Orinda	MICHAEL & MONICA GUASCH	237	180	YES	1,040	640	906	373	321	441	935	0	687	0
103	Orinda	NATIONS HAMBURGERS	124	171	no	660	460	1,174	412	252	275	433	0	934	0
104	Orinda	ORINDA HARDWARE	177	191	no	2,300	1,880	1,402	1,858	708	1,155	1,887	0	2,933	0
106	WC JPA	U S BANK BLDG	97	76	YES	660	350	0	210	290	80	0	0	0	0
107	WC JPA	1660 OLYMPIC HOLDINGS, LLC	164	No Data	No Data	240	540	140	60	0	340	0	0	0	0
108	WC JPA	GERMAN AUTO CLINIC	72	110	no	210	200	150	300	520	350	0	0	0	0
110	WC JPA	COFFEE SHOP LP	219	136	YES	1,540	1,780	160	400	1,540	1,460	1,600	0	238	0
111	WC JPA	LAKESHORE LEARNING STORE	70	No Data	No Data	120	160	180	0	0	0	0	0	0	0
112	WC JPA	PURCELL INTERNATIONAL	81	60	YES	320	160	180	150	0	60	0	0	0	0
113	WC JPA	COMCAST WALNUT CREEK	133	94	YES	160	260	200	240	300	340	260	0	160	0
114	WC JPA	USCG / COSMO PROF 8841	97	117	no	230	410	200	320	390	520	0	0	160	0
115	WC JPA	CHEVRON CVN095595 2YD SSR	84	No Data	No Data	380	0	220	0	0	0	0	0	0	0
116	WC JPA	POST OFFICE-W C	104	78	YES	470	100	220	200	890	390	130	0	310	0
117	WC JPA	CALIFORNIA DEPART OF MOTOR VEH	68	133	no	180	0	240	140	280	100	93	0	220	0
119	WC JPA	CIVIC FELINE CLINIC	133	106	YES	340	260	260	430	740	380	350	0	150	0
120	WC JPA	DERE INVESTMENT & ASSOC	89	107	no	400	177	270	160	400	160	470	0	320	0
121	WC JPA	BIG O TIRE #5272	55	73	no	570	205	270	260	610	540	890	0	286	0
122	WC JPA	801 YGNACIO LLC	143	No Data	No Data	800	520	300	280	580	420	550	0	390	0
123	WC JPA	PUBLIC STORAGE PUB008368 1YDR	158	75	YES	860	320	300	100	50	0	0	0	0	0
124	WC JPA	SMOG & DASH	133	108	YES	360	374	310	290	590	330	0	0	0	0
127	WC JPA	BOX STOP	137	115	YES	520	330	340	410	560	270	0	0	0	0
128	WC JPA	DISCOUNT TIRE CAN21 4YD FR	110	108	YES	640	100	340	70	510	390	380	0	450	0
129	WC JPA	COLE OFC WALNUT CREEK LLC	68	65	YES	220	40	350	280	460	160	390	0	520	0
130	WC JPA	SHIRLEY NOOTBAAR	154	136	YES	430	412	360	600	520	380	0	0	0	0
131	WC JPA	DENALECT ALARM	113	95	YES	230	60	380	60	360	520	220	0	320	0
132	WC JPA	COLE EUROPEAN CARS	120	135	no	1,330	468	390	1,010	1,150	550	0	0	0	0
134	WC JPA	W C HONDA	94	54	YES	200	0	440	0	260	220	0	0	0	0
135	WC JPA	KELLY MOORE PAINTS KMP#612	147	139	YES	490	310	470	340	430	170	0	0	0	0
136	WC JPA	MICHAEL STEAD JEEP	87	150	no	780	1,060	490	1,770	2,860	850	0	0	0	0
137	WC JPA	MIRAKU RESTURANT	194	181	YES	690	451	520	1,040	660	680	750	0	370	0
138	WC JPA	DOMINO'S PIZZA	144	162	no	980	780	540	1,010	1,350	590	0	0	0	0
141	WC JPA	TOYOTA OF WALNUT CREEK 8YD FR	170	No Data	No Data	940	590	580	820	0	0	0	0	0	0
142	WC JPA	TYRIS CORP	152	No Data	No Data	1,270	810	590	860	1,530	780	1,160	0	1,040	0
143	WC JPA	ALISTO ENGINEERING GROUP	125	131	no	400	220	600	180	650	200	0	0	0	0

No.	Area	Site Name	Average PU Weight Before TA	Average PU Weight After Technical Assistance	Improvement	Total Weight per Business per Month for those RECEIVING TA									
						Sep 1	Oct 2	Nov 3	Dec 4	Jan 5	Feb 6	Mar 7	Apr 8	May 9	Jun 10
144	WC JPA	OFFICE DEPOTMAX 006447 4YD REC	160	336	no	640	340	610	1,050	1,310	910	0	0	0	0
145	WC JPA	E-TECH COLLISION	115	162	no	460	320	620	100	780	610	290	0	520	0
149	WC JPA	CHEVRON STATION #93072 RECYCLE	131	122	YES	1,050	553	650	980	880	710	0	0	0	0
150	WC JPA	TWELVE 20 CLUB	170	127	YES	1,430	1,260	670	1,240	1,410	880	1,070	0	890	0
151	WC JPA	MAX'S MUSCLE & TANNING	229	230	no	530	440	670	380	670	1,440	750	0	230	0
152	WC JPA	BUTTERCUP GRILL & RESTAURANT	216	171	YES	910	710	700	890	1,310	1,380	1,250	0	1,197	0
153	WC JPA	24 HOUR FITNESS TFH000885 3YD	126	No Data	No Data	920	520	700	560	1,010	640	0	0	0	0
154	WC JPA	590 YVR ASSOC	120	No Data	No Data	610	594	700	280	620	650	540	0	1,680	0
155	WC JPA	WENDY'S	222	241	no	1,630	1,018	720	1,810	2,130	1,880	2,100	0	1,599	0
156	WC JPA	MASERATI OF WALNUT CREEK	110	113	no	540	520	790	330	550	120	0	0	0	0
157	WC JPA	AOWR - BLACK BEAR RESTAURANT	186	101	YES	540	407	790	470	730	830	1,040	0	806	0
160	WC JPA	CHEVRON CVN094640 3YD SSR	121	121	no	490	443	850	720	1,170	360	0	0	0	0
161	WC JPA	CITRUS MARKET PLACE	121	160	no	1,240	590	870	950	2,310	1,370	1,600	0	1,760	0
162	WC JPA	WAYNE STEAD CADILLAC	103	116	no	1,130	270	900	1,450	1,580	760	0	0	0	0
163	WC JPA	BURGER KING #6579	147	123	YES	870	717	950	1,160	1,160	570	0	0	0	0
164	WC JPA	PALM COURT PARTNERS	185	168	YES	740	740	980	720	560	700	840	0	220	0
165	WC JPA	STANFORDS RESTAURANT	266	No Data	No Data	900	1,440	1,080	1,460	2,280	1,800	1,540	0	0	0
166	WC JPA	CREEKSIDE OAKS	141	No Data	No Data	628	934	1,221	1,919	1,989	788	0	0	0	0
167	WC JPA	PINKYS PIZZA	363	270	YES	1,550	780	1,240	390	1,130	1,200	1,740	0	1,790	0
169	WC JPA	PANCOAST PIZZA	270	No Data	No Data	2,549	1,563	1,390	2,029	1,914	1,289	1,652	0	0	0
170	WC JPA	PROFESSIONAL CENTER HLDG CORP	166	220	no	1,100	700	1,440	40	0	140	0	0	0	0
172	WC JPA	KEVINS NOODLE HOUSE	264	221	YES	2,650	1,520	1,580	2,410	3,840	1,550	0	0	0	0
174	WC JPA	CIG-LEI YGNACIO ASSOCIATES LLC	160	148	YES	2,330	1,337	1,630	2,940	3,440	3,880	2,180	0	3,099	0
176	WC JPA	GENESIS AUTO UPHOLSTRY #7	227	No Data	No Data	300	334	1,650	310	640	430	0	0	0	0
177	WC JPA	PARK CENTER PLAZA	211	107	YES	2,350	783	1,680	2,040	7,320	2,340	2,195	0	1,500	0
180	WC JPA	TULLIO'S RESTAURANT	282	306	no	3,340	1,420	2,320	3,910	3,810	3,250	2,430	0	1,849	0
181	WC JPA	PETSMART 2475	156	153	YES	1,600	1,070	2,470	550	560	420	730	0	920	0
183	WC JPA	GENERAL PLUMBING SUPPLY	173	192	no	3,120	1,816	2,720	2,910	2,970	2,050	0	0	0	0
184	WC JPA	ATT GEARY MARKET PL, LLC	196	127	YES	2,990	2,360	3,760	3,000	2,890	2,750	2,870	0	3,979	0
185	WC JPA	CHEVRON CVN099206 2YD REC	132	105	YES	1,860	832	5,590	990	1,400	1,590	1,280	0	1,790	0

AREA			Average PU Weight Before TA	Average PU Weight After TA	Improvement	Total Weight per Business per Month									
County			176	158	YES	812	516	758	914	1,252	1,059	969	0	1,184	0
Danville			217	152	YES	1,549	1,196	1,302	1,380	1,173	1,398	1,364	0	0	0
Lafayette			165	187	no	797	907	847	811	488	446	507	0	920	0
Moraga			105	111	no	669	569	699	627	455	302	558	0	660	0
Orinda			119	129	no	695	673	660	591	328	345	563	0	689	0
WC JPA			151	141	YES	950	619	851	819	1,161	795	547	0	472	0
WC 400			159	147	YES	879	631	735	737	1,128	758	585	0	421	0
TOTAL			157	149	YES	931	712	836	823	978	747	641	0	508	0

** **Those rows hidden are businesses that received not weight data**

SCS ENGINEERS

FINAL REPORT

Evaluation of Collecting, Hauling, and Processing Food Waste in Eastern Placer County

Prepared for:

County of Placer

Facility Services Department
11476 C Avenue
Auburn, CA 95603
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Presented by:

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(916) 361-1297

January 2016
File No. 01215205.00

Final Report
Evaluation of Collecting, Hauling, and Processing Food Waste in Eastern Placer County

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Table of Contents

Section **Page**

List of Tables

1.0 EXECUTIVE SUMMARY

The County of Placer (County) contracted with SCS Engineers (SCS) to provide an evaluation of the alternatives available for collecting, hauling, and processing food waste in the eastern portion of Placer County (Tahoe Area). The driver behind this study was the approval of Assembly Bill 1826 (AB 1826), which requires communities to divert organic waste[1] from landfills, and the development of an organics management program by January 1, 2016.

The evaluation included the following steps:

- Model the waste characterization to estimate and project the types and quantities of organic material generated in the region.
- Identify site constraints and criteria for consideration when evaluating and deciding on a new organics processing technology.
- Evaluate site location options and develop a pro/con matrix.
- Research potential technologies, and score and develop list of viable options.
- Assess feedstock and product markets.
- Identify permitting requirements and regulations.
- Develop a cost model to assist with the evaluation.

The key findings from this study are:

- An estimated 6,000 tons of organic material (food scraps, yard trimmings and lumber) is generated from businesses and multi-family dwellings in eastern Placer County.
- A growth rate of 2% per year over 20 years was established for all incoming tonnage at the Eastern Regional Landfill (ERL) and Material Recovery Facility (MRF).
- Three types of technologies were analyzed: composting (windrow, aerated static pile and in-vessel composting); digestion (wet and dry); and mechanical / thermal treatment (autoclave and masher / dryer).
- Based on the scoring and weighting criteria established for the project, the autoclave, and windrow and aerated static pile composting technologies ranked the highest.
- The Eastern Regional MRF-Upper Area site ranked highest for development of an organics processing facility, with the Airport Site second. For the short-term, the R.T. Donovan site would be the primary recommended location for transporting organic materials to and from Eastern Placer County.

1 Organic waste includes food waste, green waste, landscape and pruning waste, and nonhazardous wood waste.

- The capital costs ranged from an estimated $1.3 million for windrow composting to an estimated $6.1 million for dry digestion.

This report details the research and evaluation performed, and provides recommendations on the type of organics processing technology that best suits the unique dynamics, criteria and constraints for the area.

2.0 BACKGROUND DATA COLLECTION AND ANALYSIS

This section includes the methodology and results of the material composition modeling, the evaluation of future conditions, and establishment of the criteria, constraints and scoring methodology to evaluate and recommend organics processing within the Eastern Placer County area.

2.1 MATERIAL COMPOSITION MODELING

In order to plan for the collection and processing of food waste in Eastern Placer County, an estimate was made of the types and quantities of materials that are presently available and may be available in the future. There were two components to this research: (1) identification of the volume of organic material generated by individual business to understand which businesses would need to comply with the new California organics legislation, AB 1826; and (2) calculation of the total volume of the commercial organic waste stream, in order to estimate the amount of organic material that could be available for an organics processing facility. To complete this task, SCS evaluated the potential volume of commercial organics generated within Franchise Area 3[2] by reviewing data from the Tahoe Truckee Sierra Disposal (TTSD) organics pilot project, reviewing the list of organic commercial businesses used for the pilot, and performing a modeling exercise that provided estimated percentages and weights, by material type, for each business.

The estimated commercial organics tonnage is presented in Table 1. The data was extrapolated by using the characterization modeling data, the total tonnage reported by TTSD and their estimated commercial waste percentage. The research focused specifically on tonnages for food scraps, yard trimmings and lumber, in accordance with the definition of AB 1826. There are five areas serviced by TTSD with the potential for organics to be collected and hauled to an organics processing facility. The estimated tons for each area are included in Table 1.

2 Eastern Placer, El Dorado, and Nevada County, Alpine Meadows, Squaw Valley and Northstar Ski Resorts

Table 1. Estimated Quantities of Organic Materials

	TTSD Estimated Commercial Tonnage	Estimated Total Organics Tonnage	Total Annual Food Scraps	Total Annual Yard Trimmings	Total Annual Lumber
Eastern Placer County (All)	24,531.81	12,744.46	6,310.40	1,109.86	1,129.27
El Dorado	190.68	95.26	47.11	6.43	11.79
Nevada County	612.36	305.08	120.40	28.76	10.44
Placer 2	689.94	338.68	147.53	36.98	24.22
Placer 3	14,136.55	7,382.09	3,694.47	632.64	797.35
Truckee	8,902.28	4,623.34	2,300.89	405.05	375.48

According to this analysis, the estimated quantity of food scraps that could potentially be generated from the commercial sector is 6,000 tons per year. This is based on the assumption that the CalRecycle 2014 generator study data is similar to the area dynamics, and a 100% customer participation rate. A more conservative approach was adopted for the project planning, and assumed 3,000 tons per year of food scraps would be collected and processed.

2.2 EVALUATE FUTURE CONDITIONS

This section provides data on future conditions for a new organics recycling program, specifically focusing on any opportunities, challenges and constraints for the Eastern Regional Landfill (ERL) and Eastern Regional Material Recovery Facility (ERMRF) property. Additionally, the existing and projected quantities of organic materials generated in the study area are discussed, in order to evaluate the existing and potential feedstock for the project. The information is based on a review of available data on the history and existing conditions of the site, conversations with County stakeholders, and information from Placer County.

2.2.1 Eastern Regional Landfill/Eastern Regional Material Recovery Facility

The Eastern Regional Landfill and Eastern Regional Materials Recovery Facility (ERL/EMRF) facility is a critical component in the development of organics processing in Eastern Placer County. The facility could potentially be involved in a number of aspects of the project, including transport, storage, processing and sale of finished material. An understanding of the facility and the current contracts for solid waste collection and disposal will assist in identifying and projecting what may be needed to accommodate an organics processing system in Eastern Placer County.

2.2.1.1 Material Flow Control and Contractual Obligations

In order to understand the long term availability and commitment of material entering ERL/ERMRF, a review of all hauler and material guarantee contracts was conducted. The collection and hauling contracts that are currently directing material to ERL / ERMRF are:

El Dorado County

- In 1994 El Dorado signed a Memorandum Of Understanding (MOU) with the County of Placer for a 20 year term to provide material to the ERL/ERMRF. This MOU has expired, and no new MOU is currently being considered.

- El Dorado County has a franchise agreement with Tahoe Truckee Sierra Disposal (TTSD) for the West Shore service area. The current term expires on December 31, 2016. TTSD negotiated a 7-year replacement contract, which was signed in 2015. This extended the current contract to 2024. The area contains some businesses located beyond the concentrated Placer County Area 3 collection area, and 700-1,200 highly seasonal and geographically diverse residential customers (service is non-mandatory).

✓ **El Dorado has an estimated 602 annual tons, which is 1% of the total material entering the facility.**

Nevada County

- Nevada County has no contract with the County of Placer.

- Nevada County has a franchise agreement with TTSD for the Eastern portion of the service area. The current term expires on June 30, 2018. There are several businesses in this area, and approximately 800 year-round mandatory residential customers.

✓ **Nevada County generates 3% (1,929 annual tons) of the total material entering the facility.**

Placer 2

- Placer 2 has no contract with the County of Placer or TTSD.

✓ **Placer 2 generates 3% (2,169 annual tons) of the total material entering the facility.**

Placer 3

- The ERL/TTSD franchise agreement that was signed in June 2015 and expires on June 30, 2022, provides TTSD with the management and operation of the ERL/ERMRF, as well as hauling all material within the County of Placer Franchise Area 2 and 3 (service is mandatory).

    - There are three residential Public Utility Districts (PUDs): Squaw Valley; Alpine Meadows; and Northstar, all located within the confines of Placer County Area 3. TTSD services the commercial businesses located in these PUDs under the

Placer County franchise agreement. Residential service is contracted annually between TTSD and each PUD. It is worth noting that all three PUDs pay the franchise fee on residential service to Placer County, in exchange for inclusion in Placer County programs. Squaw Valley is currently in the process of pursuing self-incorporation.

- ✓ **Placer 3 generates 58% (44,475 annual tons) of the total material entering the facility.**

Town of Truckee

- In 1994, the Town of Truckee signed an MOU with the County of Placer for a 20 year term to establish a guaranteed waste stream and related revenue to fund construction and ongoing operations and maintenance at ERL/ERMRF. The MOU expired in 2014. An extension was put in place until a new MOU is developed, however either party can terminate the MOU with 6 months' notice.

- The Town of Truckee has a collection franchise agreement with TTSD; the current term expires on June 30, 2018. The services are mandatory, and include all residential and commercial accounts.

- ✓ **The estimated annual tonnage from Truckee is 28,006 tons or 36% of the total material entering the facility.**

2.2.1.2 Waste Flow Projections

The quantities of material taken to the facility by TTSD or self-hauled are shown in **Table 2**. El Dorado County and Placer 3 have extended contracts (through 2024 see 2.2.1.1, second bullet under El Dorado County and 2022, respectively), guaranteeing approximately 60% of the current incoming material for the next 8 to 10 years. Both Nevada County and Truckee have a guarantee for the next two years.

Table 2. 2014 Annual ERL / ERMRF Tonnage

	TTSD Contract Expiration Dates	Material	ERL / MRF Tonnage for All In-coming Material	Total Annual Tons for TTSD Only	Percentage of Entire Amount
Eastern Placer County (ALL)		Mixed Waste / Inerts (TTSD)	44,897.27		100%
		Mixed Waste / Inerts (Self Haul)	32,275.38		
		TOTAL	**77,172.65**		
El Dorado	**12/31/2016, contract may be extended to 2024**		601.95	350.20	1%
Nevada County	**June 30, 2018**		1,929.32	1,122.43	3%
Placer 2	**No Contract**		2,168.55	1,261.61	3%
Placer 3	**June 30, 2022**		44,474.60	25,874.30	58%
Truckee	**June 30, 2018**		28,005.95	16,293.22	36%

To develop and operate an organics processing facility cost effectively, it is highly desirable to have a dedicated flow of material to the facility. Extension of both the County of Placer MOU and the TTSD contracts with the Town of Truckee would guarantee the material will continue to be brought to ERL / ERMRF for at least another 10 years. This will provide the tonnage used in this report as the basis for starting and continuing an organics processing operation.

2.2.1.3 Operations and Capacity

Ongoing operations at the ERL/ERMRF site include receiving, processing, transferring, and marketing of solid waste and recyclables, vehicle maintenance and repair, and post-closure maintenance of the closed landfill. The site also houses the administrative operations of Tahoe Area Regional Transit. Planned improvements to the ERL/ERMRF include facility upgrades to the MRF, which were included in the June 2015 updated permit and new contract between the County and TTSD, and the addition of a second scale. In addition, a biomass energy facility was proposed to be developed on the southern portion of the site, however development is pending, based on the ability to negotiate a power purchase agreement with the electric utility.

The implementation of organics processing in Eastern Placer County will impact the site and day to day operations at the ERL/ERMRF site. The magnitude of the changes will depend on the selected processing method, and whether it is located on or off-site. A discussion of potential impacts to the site from organics processing are discussed in the following sections.

Traffic at the site will be impacted, depending on how the organic material is collected, the extent of onsite processing of the material, and if new material is brought to the site in addition to the current TTSD and self-haul materials. The increase in car, truck or long-haul vehicles accessing the site is not anticipated to be significant, because of the low volume of food scraps and other organics to be handled.

Presently there are two food scraps collection methods under consideration: 1) a truck dedicated to collecting food scraps placed in a separate bin; and 2) a “yellow bag” program that would

require businesses to place food scraps in the colored bag with their normal trash containers. If the material is source-separated, it will require one additional truck on a daily basis, which will either take the materials to a 3rd party compost facility, or to the ERL/ERMRF site for processing. If the "yellow bag" program is selected, existing routing will be continued, and no additional truck will be needed.

If organic materials are brought to the ERL/ERMRF, the traffic will enter the facility, be weighed at the scale house, and transported to the appropriate processing area. The type of collection method used, and the final destination of the materials, will determine where, on the site, the materials will be transported. If the final destination for the materials is offsite processing, then the material will be transferred through the ERMRF. If the materials are to be processed onsite, bagged materials will most likely be initially handled in the MRF, and then transported to the processing facility. If the materials are collected source separated in a dedicated truck, they could be dumped directly at the organics processing facility tipping area.

The onsite traffic flow for incoming organics will depend on the location of the organics facility, and how and where the material is processed. Assuming a low volume of food scraps, the change to the onsite traffic flow is anticipated to be minimal.

Operations at ERL/ERMRF will be modified, depending on which collection process is selected (separate bin for food scraps or yellow-bag program). If the material is taken offsite for processing, the food scraps collected in separate bins and dedicated truck would be direct hauled to the facility and there would be no changes to the operations at ERL/ERMRF. If the yellow bag program is used, the TTSD truck will drop the bags at the ERMRF. Considerations for this collection method include: labor requirements for handling the bags; whether the bags would be processed on the MRF line, and the available capacity for this; or if the bags can be separated from the refuse on the tipping floor.

If an organics processing facility is developed at the ERL/ERMRF site, an efficient method will need to be developed to ensure the food scraps are not a source of odors or an attraction for bears and other animals or pests. If handled in the ERMRF, the facility may need to be retrofitted with automatic doors. If handled outside (such as windrow composting), the addition of electrified fencing and/or fencing with automatic gates may be necessary. These methods have been successfully utilized at other composting facilities, including Mariposa County, California, Northeast Indiana Solid Waste Authority, and Yellowstone National Park. In Pitkin County, Colorado, they have found that immediately windrowing the materials successfully deters the attraction of animals or other pests.

Capacity of the organics processing facility will be determined based on the technology selected, and the types and quantities of materials to be processed. The siting analysis prepared for the project indicates the ERL/ERMRF site has adequate space for the development and operation of the organics processing technologies presently under consideration, and will be able to accommodate anticipated growth as well.

Permitting for organics processing onsite will be addressed separately in this report, however it is noted that modification of the existing solid waste facility permit will be required. The solid waste facility permit was updated in June 2015, and allows for peak daily tonnage of 440 tons

per day (TPD) for disposal and transfer, and 360 TPD for "other" materials, including sludge, separated and comingled recyclables, non-hazardous municipal waste, agricultural wastes, construction and demolition waste, tires, appliances, non-friable asbestos, and dead animals. Currently the facility receives an average of 130 TPD of incoming material from self-haul (mixed waste, inerts and buy back) and 173 TPD from TTSD, totaling 303 TPD of incoming material. At this current volume of incoming materials, there is approximately 500 TPD of available capacity at the facility.

2.2.2 Organics Projections

In order to evaluate the potential for the facility to host an organics processing facility, a projection of the future incoming tons was prepared, based on a 10 year average of the quantities of materials brought to the site. This analysis indicated an increase of 2% per year of incoming material. Utilizing this annual growth factor, projections were developed for a 20 year planning period (**Table 3**). As indicated in Table 3, it is estimated the incoming material will increase to a high of 460 TPD by 2035. The existing permit would allow for this additional quantity of materials to be received at the site.

Table 3. 20 Year Projection – Incoming ERL Tonnage

	Annual Mixed Waste, Inert Tons and Buy Back Center Tonnage - at a 2% increase in volume each year	Estimated Tons Per Day
2014	78,757	303
2015	80,332	309
2016	81,939	315
2017	83,578	321
2018	85,249	328
2019	86,954	334
2020	88,694	341
2021	90,467	348
2022	92,277	355
2023	94,122	362
2024	96,005	369
2025	97,925	377
2026	99,883	384
2027	101,881	392
2028	103,919	400
2029	105,997	408
2030	108,117	416
2031	110,279	424
2032	112,485	433
2033	114,735	441
2034	117,029	450
2035	119,370	459

2.2.3 Recycling Laws, Regulations and Program Changes

California organics laws and regulations have changed over the past few years, and new requirements will affect the management of organics materials in Eastern Placer County. A brief description of these laws is included below, and their implementation will be further addressed in the Organics Management Plan prepared for the County.

- **AB 1826**: Mandatory commercial organics recycling, requiring businesses to recycle organics and multi-family dwellings (MFDs) to recycle the yard trimmings. An organics management plan must be in place by January 1, 2016. The following phases of the law establish the thresholds for compliance:

    - **Phase 1**: All businesses (and MFDs with 5 units or more) that generate 8 cubic yards (cy) or more per week of organics must have organics recycling in effect by April 1, 2016.

- **Phase 2**: All businesses (and MFDs with 5 units or more) that generate 4cy or more per week of organics must have organics recycling in effect by July 1, 2017.

- **Phase 3**: All businesses (and MFDs with 5 or more units) that generate 4cy or more of municipal solid waste must have organics recycling in effect by January 1, 2019.

- **Phase 4**: CalRecycle will assess results and decide if further requirements and enforcement is needed.

- **AB 1594:** Any green material defined as alternative daily cover does not constitute diversion through recycling and would be considered disposal effective January 1, 2010.

- **AB 1045:** Requires the California Environmental Protection Agency, in coordination with CalRecycle, the State Water Resources Control Board, the State Air Resources Board, and the Department of Food and Agriculture, to develop and implement policies to aid in diverting organic waste from landfills by promoting the composting of specified organic waste and by promoting the appropriate use of that compost throughout the state.

- **AB 876:** Commencing August 1, 2017, requires a county or regional agency to include in its annual report to CalRecycle an estimate of the amount of organic waste in cubic yards that will be generated in the county or region over a 15-year period, an estimate of the additional organic waste recycling facility capacity in cubic yards that will be needed to process that amount of waste, and areas identified by the county or regional agency as locations for new or expanded organic waste recycling facilities capable of safely meeting that additional need,

If these assembly bills pass, the following would be required:

- **AB 1103:** Would require a person who transports a certain amount of food waste to be registered by CalRecycle. The bill would require a registered transporter to maintain a record of food waste transported that contains specified documents and information, and to certify, under penalty of perjury, to the accuracy of the record. By expanding the application of the crime of perjury, the bill would impose a state-mandated local program.

- **AB 590:** Would provide cost sharing strategies to help biomass power generators to renew expiring power purchase agreements in order to maintain the current level of biomass power generation in the state and revitalizing currently idle facilities in strategically located regions. In the last 12 months California has closed five biomass power generation plants. This assembly bill would try to create a more solid infrastructure for continued use.

- **SB 498**: Adds non-combustion conversion technologies, such as gasification, pyrolysis, and anaerobic digestion, to the biomass conversion definition. Allows 10% diversion credit for AB 939 compliance to include non-combustion conversion technologies.

Enforcement by CalRecycle for AB 341 and AB 1826 could become more stringent in the future. Depending on how successful businesses and communities are with implementing programs, and how much progress is made toward meeting state-wide diversion goals, CalRecycle may establish enforcement regulations that could make the County responsible for compliance.

2.2.4 Local Participation

There is strong interest from the local community to develop some type of food waste diversion program. Due to the local demand for a food waste program, County staff has worked with ERL and TTSD to study the potential for collection of food waste, and developed a pilot program to collect food waste from a select sample of TTSD commercial customers. The study, conducted in the fall of 2014 and winter of 2015, included 12-15 participants, and provided valuable information for analysis and implementation of a full scale program.

The success of an organics collection and processing program in Eastern Placer County will require cooperation and participation of all stakeholders, including the County, TTSD, commercial businesses, citizens, and other entities. The community dynamics may present future challenges depending on the overall understanding of the process and system, and level of input into collection and processing of organic materials. Concern's regarding local conditions such as odors, wildlife, and traffic, as well as space requirements, materials handling requirements, and costs for service may create some apprehension towards an organics program. It is recommended to develop and implement a stakeholder outreach and participation program to provide information and obtain input in order to address the public's concerns and to obtain community acceptance and buy-in of the program.

2.2.5 Products and By-Product Markets

Long-term markets for the materials produced from the organics process will depend on the local and regional demand for the materials. According to existing composting operators RT Donovan and Full Circle, there is a seasonal market for the materials produced from their operations. It is recommended that ERL and/or the County develop a formal process and seek contracts with potential users, including the ski resorts, city/county agencies, landscapers and others who use material on a regular basis. It is recommended the County and/or ERL develop a business/marketing plan for the facility and the products. The business plan would include a marketing plan, operational plan, and financial plan, as well as a discussion of the decision making criteria that would be used to approve the plan.

Some of the important issues to be addressed in the business plan include the following:

- Existing and potential feedstocks, including consideration of composting pre-consumer and post-consumer food scraps,
- Existing and potential products, including identification of potential users
- Financing options and pricing structure, with considerations of local and regional competition
- Potential partnerships, including private and public entities.

2.2.6 Long-Term Projections of Feedstock and Markets

2.2.6.1 Feedstock Projections

An estimate of the quantities of organic materials that will be available over the 20 year planning period was calculated based on data provided by TTSD of MSW received at ERL/ERMRF between 2004 and 2014. The volumes fluctuated dramatically, from a decrease of 15% to an increase of 6%. Based on the data analysis, and input from TTSD and the County, a growth rate of 2% per year over 20 years was established.

Table 4 includes the 2014 actual quantities of materials received, including mixed waste, inerts and the buyback center, with projections for each year through 2035. The commercial food scraps tonnages were estimated based on the model developed by SCS, which used CalRecycle waste composition data, TTSD commercial account information, and comparison with 2014 annual tonnages. The projections presented in Table 3 assume the CalRecycle business sector data closely reflects the TTSD service area, and 100% participation by businesses.

Table 4. 20 Year Projection – Incoming Annual ERL Tonnage

Year	2% increase in volume each year			
	Mixed Waste	Inerts	Buy Back Center	Commercial Food Scraps
2014	55,128	20,045	1,585	6,310
2015	56,230	20,446	1,616	6,436
2016	57,355	20,855	1,649	6,565
2017	58,502	21,272	1,682	6,696
2018	59,672	21,697	1,715	6,830
2019	60,865	22,131	1,750	6,967
2020	62,083	22,574	1,785	7,106
2021	63,324	23,025	1,820	7,248
2022	64,591	23,486	1,857	7,393
2023	65,883	23,956	1,894	7,541
2024	67,200	24,435	1,932	7,692
2025	68,544	24,923	1,970	7,846
2026	69,915	25,422	2,010	8,003
2027	71,313	25,930	2,050	8,163
2028	72,740	26,449	2,091	8,326
2029	74,195	26,978	2,133	8,492
2030	75,678	27,517	2,175	8,662
2031	77,192	28,068	2,219	8,836
2032	78,736	28,629	2,263	9,012
2033	80,311	29,202	2,309	9,192
2034	81,917	29,786	2,355	9,376
2035	83,555	30,382	2,402	9,564

2.2.6.2 Market Projections

Compost will improve the quality of almost any soil, and for this reason it is most often considered a soil conditioner. Compost improves the structure and texture of the soil, enabling it to better retain nutrients, moisture, and air for the betterment of plants. The use of wood mulch

and wood chips also offers clear benefits for improving soil and generally performs at least three basic functions:

- Reduces soil water losses
- Suppresses weeds
- Protects against temperature extremes.

Compost produced by commercial facilities is often mixed with sand or soil and sold as topsoil. Compost may also be sold to topsoil companies who blend the compost with other materials before sale.) Mixing compost with sand or soil to produce topsoil increases the value of the product, and allows the material to be sold at a higher price.

A number of entities were contacted in an effort to determine the potential users of compost in the Tahoe Truckee area. In general, there are opportunities to market compost or a blended topsoil product to landscapers, topsoil companies, nurseries, other small businesses, and local residents, if the material is of high quality and priced competitively. There may also be opportunities to market larger quantities of product to specific projects (e.g., construction projects), but these opportunities will be available on a case-by-case basis.

Various state and regional agencies were contacted to obtain information regarding the need for and marketing of compost. Although there may be some possibilities of marketing compost to contractors hired for specific CalTrans and Nevada DOT projects, the total market for compost by these agencies is unknown at this time.

2.3 PROJECT CONSTRAINTS AND CRITERIA

The first step in identifying a viable organics processing technology would be to define project constraints and criteria which provide a consistent and equitable screening system for the Eastern Regional MRF (ERMRF) site, as well as other viable options for placement of an organics processing technology. The following information is based on the review of available data on the history, as well as the existing conditions.

2.3.1 Project Constraints

Project constraints, which are considered limitations or restrictions to the site that will inhibit siting the organics processing technology, provides initial direction concerning viable options for placement of the organics processing technology. The following details provide the known constraints at the ERL (which may also be applicable to off-site locations).

2.3.1.1 Land Use and Topography

The ERMRF is a closed Class III solid waste management unit on a 292-acre site. The Facility formerly served as a sanitary landfill for the communities on the north and west shores of Lake Tahoe, Truckee, and the vicinity. The Facility was operated by a private company, Eastern Regional Landfill, Inc., from 1973 until June 1995, when it stopped receiving wastes for disposal and a solid waste transfer station was constructed at the site.

The southwest portion of the site is developed with the existing ERMRF transfer station, scale, and maintenance building. The southeast portion of the site includes facilities operated by Tahoe Area Regional Transit (TART). A recent investigation uncovered a previously unknown area of fill between the maintenance building and the landfill. There is little open space in the southern portion of the site, and therefore this area is not considered suitable for development of an organics processing facility.

The middle of the site contains the former landfill area, which included two separate elongated, southeasterly trending fill areas, approximately 20 acres each. The fill areas rise approximately 75 to 100 feet above the surrounding topography with a maximum gradient of 3.5:1. The existing landfill gas flare station is located between the two fill areas. The landfill was closed with an enhanced prescriptive cover including a two-foot thick foundation layer of soil, a one-foot thick low-permeability soil barrier layer, and a two-foot thick soil layer suitable to support cover vegetation. The final cover was configured to assure positive drainage and eliminate ponding, and includes provisions for offsite conveyance of waters associated with the 100-year storm event. The fill area is not considered suitable for development of an organics processing facility, due to potential settlement, location of the existing gas collection system, and need to maintain integrity of the cover system.

North of the former landfill is approximately 30 acres of native, non-fill area which is relatively flat, and undeveloped. The area is presently used for recycling and reuse activities, including wood chipping, concrete and asphalt storage, screening of topsoil, and storage of pine needles. The area is accessed by a gravel road on the western portion of the site. This area, particularly the western portion, is considered suitable for development of an organics processing facility, as it is native, relatively flat, and accessible by an existing gravel road. The existing recycling and reuse activities in the area would need to be relocated and/or consolidated. (This area is the original borrow area and is being reclaimed. The reclamation plan is currently being revised and the plan contours may change. There may be a potential to incorporate a facility into the reclamation plan.)

2.3.1.2 Site Boundary and Surrounding Uses

The site includes a total of 292 acres, of which 65 acres were permitted for landfilling. The remaining acreage includes buffer areas to the west, north and east, which are native forest lands. A network of forest service roads and trails surround the site, and are accessible and open to the public. Although there is a fence around the site, and some of the forest service roads are gated, the public can access the site from various points. In addition, wildlife, including bears and deer, can also access the site. These conditions are considered a constraint for the development of an organics processing facility.

2.3.1.3 Site Access and Roads

The site is located west of State Route 89 at the end of Cabin Creek Road, a two lane road with a steep incline. A dedicated turning lane provides access to the site. The onsite roads leading up to and slightly beyond the scale are paved, however the roads in the northern portion of the site are gravel. During the winter, the area receives an average of 17 feet of snow. Winter conditions can make travel on both Cabin Creek Road and onsite roads difficult. Improvements

to the onsite roads will be necessary to accommodate traffic to the northern portion of the site, in order to accommodate an organics processing facility.

2.3.1.4 Existing Scale

The site currently has one at-grade scale that services both inbound and outbound vehicles. Current operations result in opposing vehicles entering and leaving the site with the need to be weighed. There are known constraints surrounding the current scale and scale house including underground power lines, power poles, a propane tank, buried gas lines, and limited cueing length entering and leaving the site.

The County is presently evaluating the potential of adding an additional scale for the purpose of minimizing cueing distance entering and leaving the site during normal and peak traffic, eliminating opposing traffic to improve safety, and increasing efficiency in weighing vehicles, using one scale operator, if possible. Relocation and/or modification of the existing scale house is also a possibility, however the existing scale will not be moved. The analysis and recommendations will be completed in the Fall of 2015.

2.3.1.5 Landfill Gas

The site is equipped with a landfill gas (LFG) collection system that consists of 25 vertical gas extraction wells in waste and 11 Soil Vapor Remediation wells on the southern limits outside the waste mass. The LFG control system also includes a network of collection header pipe and condensate management components that deliver LFG to a flare station for destruction. The LFG header lines are sloped to collect gas condensate at engineered three sump locations. The collected gas condensate is destroyed by flame combustion using the LFG. The system has been in operation since 1997 when it was installed. As is expected with closed landfills, over time since operation began, both the quality and quantity of LFG produced by the waste has been steadily declining. At the onset of system operation the LFG facility combusted an average of 1100 cubic feet of landfill gas per minute at a relative methane content of 35 percent whereas today the methane content has declined to approximately 22 percent with a nominal flow rate of 75 cubic feet per minute. These flow rates are maintained to prevent the migration of methane into the air or surrounding soils.

The LFG monitoring network at the Facility to verify that migration is not occurring consists of ten perimeter gas monitoring probes and four interior gas monitoring probes. The probes are monitored regularly to verify that the collection system is preventing migration laterally through soils and away from the landfill.

2.3.1.6 Drainage and Water Quality

The water quality monitoring network at the Facility includes groundwater, surface water, vadose zone, and leachate monitoring stations. Vadose zone monitoring is performed using a pair of lysimeters beneath the northern refuse mound (one of the pair is no longer functioning) and a pair of background lysimeters east of the landfill. Surface water is monitored at six locations where runoff from the site occurs and at both an upgradient and a downgradient location at the Truckee River.

The ground water monitoring network includes three background wells, at upgradient locations along the west side of the landfill, and five compliance monitoring wells, positioned at downgradient locations along the south and east sides of the landfill. Ground water in the unconfined, shallow aquifer flows in the unconsolidated Donner Lake Till which overlies low permeability Bald Mountain Latite. The flow direction is to the east and southeast. Isolated perched water zones exist within the glacial till, but the heaviest flow appears to be at the base of the till, directly on top of the underlying volcanic rock. The existing ground water monitoring network is predominantly in this unconfined, shallow aquifer (i.e., MW-7, MW-8, MW-9, MW-10, and MW-15).

2.3.1.7 Leachate Control

Leachate control is provided at the northern mound with an underlying network of leachate collection pipes that were placed in shallow gravel-filled trenches below, and around the perimeter of the refuse. Collected leachate flows by gravity to a storage tank east of the refuse mounds. Leachate is pumped from the storage tank to the sewer system along the south side of the property where it is conveyed to the Tahoe Truckee Sanitation Agency's wastewater treatment plant in Martis Valley for treatment. No leachate control is provided under the southern mound. Neither landfill mound includes bottom liners.

2.3.2 Project Criteria

The selection and siting of a organics processing facility entails a number of key factors, including availability of land in relation to site requirements, traffic and access issues, proximity to sensitive receptors, air and water quality issues, land use, solid waste facility and other agency permitting, public understanding and acceptance, and additional local and regional issues.

In order to select a technology and site, a set of criteria will be developed for consideration of the placement and selection of the organics processing technology. The criteria will be used to develop a scoring methodology to objectively evaluate the suitability of a technology and prospective sites, and to assess whether the site can accommodate the development of the proposed facility.

A set of three criteria will be developed based on the facility location, technology, and County requirements. The criteria will be used for the Eastern Regional Landfill site, as well as other potential sites are described below:

2.3.2.1 Facility Location Criteria

Facility location criteria include all details specifically related to the boundaries and physical attributes of the site, such as:

- Land Use and Location: This category includes the properties size, general plan and zoning designation, and existing land use, as well as proximity to compatible facilities, such as solid waste, wastewater, or electric generating facility. This category also addresses proximity to sensitive receptors, including residences or schools, as well as location near US Forest service land and trails, or other protected environmental areas.

- Access and Transportation: This category includes the regional and local access to the site, including highways and local roads. The category also evaluates the distance to the centroid of waste generation, in this case eastern portion of Placer County, garbage collection Franchise Area 3 (Tahoe Area).

- Site Size and Space Availability: This category includes the size of the site, and the availability of space in relation to the potential layout and orientation of the facility. Factors to consider include ability to handle public use, areas for unloading, loading, mixing, processing, buffer space, and storage of products. The overall footprint of the facility will also be included in this category.

- Site Ownership and Acquisition Options: This category includes the existing ownership of the site, and the availability of the site for purchase or lease. Also the existence of any limiting easements.

- Vector, Bird and Animal Control: The need for vector, bird and other animal controls, in addition to the existing fencing around the site will be evaluated.

- Aesthetics: Although it appears the site is largely out of direct sight to neighbors, the facility will be assessed for the potential impacts to existing views and vistas, and the need to provide screening.

- Permitting: This category includes the types and timing of obtaining the requisite permits for the facility development and operations. Permits may include land use, solid waste facility, air quality, stormwater groundwater.

2.3.2.2 Technology Criteria

Technology site criteria shall include all details specifically related to what is important for siting of organics processing, such as:

- Utilities: This category includes the availability of utility services on the property, including electricity, water, and heating, as well as utility usage, to determine the internal use of utilities, including water required, water reuse, internal power generation to cover their parasitic (internal facility) needs, and use of other auxiliary utilities. Electricity output and connection to main grid, and potential conversion to CNG.

- Wastewater Generation: The amount and characteristics of wastewater generation from the facility will be assessed to determine if on-site storage is needed, and if the existing force main can handle it, or other disposal arrangements (trucking) are necessary.

- Air Emissions and Odors: The technology's air emissions and air emission controls will be assessed to determine potential for unique air quality issues. The technology's processes will be assessed for the potential to emit odor that would potentially present adverse impacts to the operator and to the surrounding areas.

- Operating Facilities: These criteria will assess the number of "commercial" sized reference facility(ies) that are operating, what quantity and type of feedstock they are

operating upon, and whether they are operating in the US or internationally. Qualifications of the technology vendor would also be evaluated, including description of company and structure, legal history (that is public), and environmental compliance. The assessment also will include providing operating costs from the vendor for use in a later segment of the analysis and their typical contractual terms and conditions.

- Environmental/Sustainability Issues: This category evaluates the issue of carbon footprint/greenhouse gas (GHG) impacts. Sustainability issues include waste diversion, generation of renewable energy, creation of "green jobs", incorporation of LEED building standards, and corporate sustainability policies.

- Marketability of products: This category will include a review of the suitability of by-products to see if viable markets are established for the proposed by-products.

- Technical feasibility: This criterion includes mass and energy balances, process flow diagrams, general description and information on all components of the facility (from pre-processing to feed systems, conversion systems, water treatment systems, environmental controls, nuisance controls, operational procedures, etc.). It will be important to garner any and all "real" operating data instead of "theoretical" information that is typically provided.

2.3.2.3 County Criteria

The County criteria includes what is important and necessary for the County to address and ensure the goals and objectives of this project are met, such as economic feasibility, cost-effectiveness, and ability to generate revenue.

- Economic Feasibility: This component will evaluate the financial viability of the technology, including the development and permitting costs to assess the percentage of the total capital costs they represent. The construction costs compared to the construction costs of the other technologies. O&M costs including personnel, maintenance, etc. and identifying costs for residuals disposal.

- Cost-Effectiveness: This category evaluates elements relating to the financial viability of the technology. The capital costs and unit operating costs are both evaluated based on dollars per ton. The capital costs play a large factor in whether or not the project can be built.

- Ability to Generate Revenue: This category evaluates the ability of the technology to generate revenue and the marketability of the products. Technologies will be scored on whether or not they provided adequate descriptions of product specification(s) and marketability. The anticipated revenues for the end products (recyclables, energy, compost, etc.) will be rated from a high, medium, low scale once all of the responses are tabulated. Technologies that produce energy as a by-product will be evaluated on how much usable energy they are able to produce, and whether or not the product can be included in the renewable portfolio standard (RPS).

2.3.3 Scoring System

SCS developed a scoring system based on assigning a weight and point value to each criteria identified during the constraints and criteria evaluation. The scoring system was split into three primary areas: facility, county and technology. In each of these areas, the evaluation criteria metrics were applied for each potential site and weighting factors were included to rank the potential sites from highest to lowest score. The top ranked site is not necessarily the best site. The ranking only serves to provide the County a sense of which site appears to have more attributes and less potentially adverse impacts. For the list of categories and their scoring and ranking system, refer to **Appendix A**. This scoring system was used during the site and system evaluation process described below.

3.0 SITE AND SYSTEM EVALUATION

The successful siting of an organics processing technology facility incorporates a number of key factors, including availability of land in relation to site requirements; traffic and access issues; proximity to sensitive receptors; air and water quality issues; land use, solid waste facility, and other agency permitting; public understanding and acceptance; and additional local and regional issues (e.g., bear-resistant bins, odor control, etc.). All of these factors were taken into consideration when evaluating the potential to site a facility in the Placer County area. A short list of potential sites was generated and evaluated for suitability for an organics processing technology. This process and a list of the potential sites are highlighted below.

3.1 EVALUATE SITE LOCATION OPTIONS

The purpose of this section was to identify potential locations for processing of organics generated in Eastern Placer County. The data and information gathered was used to inform and support the final recommendations for the project. The following was performed:

- Identify a short list of potential sites
- Evaluate the sites for suitability for organics processing
- Filter out unacceptable sites
- Develop a short list of sites to visit and conduct site visits
- Develop a pro/con matrix of short-listed sites
- Preparing findings and recommendations of the preferred sites

3.1.1 Identification of Potential Sites

The first step of the site evaluation process was to identify an initial list of potential sites that could accommodate an organics processing facility. Key factors that were used to identify potential sites included the following:

- Land use and location: compatible with existing and surrounding land uses
- Access: Accessible by existing road network
- Proximity to waste generators
- Adequate space for proposed operations
- Property Ownership
- Availability of infrastructure

Using these factors and input from the County, Tahoe Truckee Sierra Disposal and members of the Foodwaste User group, the initial list of sites included the following:

A. Eastern Regional MRF – upper area

B. Eastern Regional MRF – lower area

C. Full Circle Soils and Composting, Carson City, NV

D. RT Donovan Co, Sparks NV

E. Truckee-Tahoe Airport

F. Tahoe-Truckee Sanitation Agency

3.1.2 Scoring and Ranking of Initial Sites

Applying the selection criteria developed, the initial list of sites was scored, and unacceptable sites were filtered out. The results of the scoring are shown in **Table 5**. The scoring resulted in a refined list of sites, categorized as "preferred" or "possible" sites. The "possible" category of sites will only be assessed further in the event the sites in the "preferred" category are not feasible. The preferred and possible sites are listed in **Table 6**.

Table 5. Scoring and Ranking of Initial Sites

Criteria	Weight	Scoring Details	Point Scale	SITE EVALUATION SCORING											
				A. ERMRF-Upper Area		B. ERMRF-Lower Area		C. Full Circle		D. RT Donovan		E. Truckee Tahoe Airport		F. Tahoe-Truckee Sanitation Agency	
				Points Scored	Total Score (Points x	Points Scored	Total Score (Points x	Points Scored	Total Score (Points x	Points Scored	Total Score (Points x	Points Scored	Total Score (Points x	Points Scored	Total Score (Points x
C. FACILITY LOCATION CRITERIA															
Land use and location: compatible with existing and surrounding land uses	4	Yes	2	2	8	1	4	2	8	2	8	2	8	1	4
		No	1												
Access: Accessible by existing road network	3	Yes	2	2	6	2	6	2	6	2	6	2	6	2	6
		No	1												
Located in proximity to waste generators	2	Yes	2	2	4	2	4	1	2	1	2	2	4	2	4
		No	1												
Adequate space for proposed operations	3	Yes	2	2	6	1	3	2	6	2	6	2	6	1	3
		No	1												
Property Owned by Agency	3	Yes	2	2	6	2	6	1	3	1	3	1	3	1	3
		No	1												
Need for Vector, Bird, and Animal Control	3	Yes	1	1	3	1	3	1	3	1	3	1	3	1	3
		No	2												
Aesthetics: Potential for negative impacts to views and vistas	3	Yes	1	2	6	2	6	2	6	2	6	2	6	1	3
		No	2												
TOTAL					**39**		**32**		**34**		**34**		**36**		**26**

Table 6. Preferred and Possible Sites

PREFERRED	POSSIBLE
Eastern Regional MRF - upper area	Eastern Regional MRF - lower area
Truckee Tahoe Airport	Tahoe-Truckee Sanitation Agency
R.T. Donovan Co	
Full Circle Soils and Composting	

Using this shortlist of sites, the site evaluation process was then focused on the preferred sites, for further evaluation and consideration.

3.1.3 Site Visit Observations

Site visits were conducted at three of the top four sites on September 21 and 22, 2015, and November 10, 2015. A visit to Full Circle, was not possible, however an in-depth discussion with the facility operators was conducted via telephone on September 21, 2015. The purpose of the site visits was to confirm there were no unexpected conditions or obvious information errors or gaps in the site data, and to better qualify the pros and cons associated with each site. The site visits included an evaluation of physical conditions of the site, and discussions with the facility operators. Summaries of the observations from the site visits are included below:

Eastern Regional MRF – Upper Area

The Eastern Regional MRF is located at 870 Cabin Creek Road, Truckee, CA. The Upper Area of the Eastern Regional MRF site that was evaluated for potential development of an organics processing facility includes the northwest portion of the site, where the existing processed wood is stockpiled. This area is approximately 11 acres in size, and relatively flat. According to interviews with persons familiar with the site, this area had been used as a borrow area for the former landfill cover operations, and is comprised of fill, however no solid waste was disposed in this area. There are no landfill gas or groundwater monitoring wells in the immediate area under consideration. The Upper Area is accessible via the existing paved road that extends from the scale house for approximately 1,600 feet, and then the dirt road for the remaining distance to the upper area. Electricity is available on the ERMRF site, to approximately the flare station, however service will need to be extended to service the upper area. Existing operations in the Upper Area will need to be re-located on-site to accommodate development of organics processing. Ample room is available for the development of a windrow, static pile or in-vessel composting, or a small Anaerobic Digester or autoclave processing facility.

Eastern Regional MRF- Lower Area

The Lower Area of the Eastern Regional MRF site that was evaluated for potential development of an organics processing facility includes the area near the caretaker house, and storage shed area, to the west of the existing MRF. This area is approximately 2 acres in size, and relatively flat. The area has been used for storage and housing, but has no history of landfilling. There are no landfill gas or groundwater monitoring wells in the immediate area under consideration. The Lower Area is accessible via paved road from the scale house, and is located within a few

hundred feet of the scale and MRF. Electricity service is presently available in this area of the Eastern Regional MRF site. The Lower Area is limited in size, and is therefore not considered adequate for development of an organics processing facility.

R. T. Donovan Co.

The R.T. Donovan Co. is a permitted composting facility located at 11600 Pyramid Way, Sparks, Nevada, approximately 50 miles northeast of Truckee, CA. The facility is accessible via US 80 or from US 395 via McCarron Boulevard. The facility is approximately 140 acres in size, and is the only permitted commercial composter in Washoe County, Nevada. The facility accepts tree trimmings, grass clippings, leaves, and food scraps brought to the site by local residents and businesses, and produces a variety of topsoil, soil mixes and compost. RT Donovan does not provide collection services or delivery of materials. The accepted green materials are ground and then composted in open windrows. The facility is considering the development of an aerated static pile trial operation. The tipping fees at the facility range from $36 per cubic yard of green materials to $45 per ton for food scraps. They prefer materials to be brought in loose, not in bags, and minimal compostable food service ware, such as plates, cups and utensils. Their biggest concern is contamination of materials with non-compostables, such as glass and plastics. The facility has indicated there is adequate room to expand their operations to accept materials from Eastern Placer County, including green waste and food scraps (vegetable and animal products).

Full Circle Compost (via telephone interview)

Full Circle Compost operates the composting facility at the Northern Nevada Correctional Center, located at 1721 Snyder Ave, in Carson City, Nevada, approximately 70 miles southeast of Truckee via US 80 east and US 580 south. The facility operates on approximately 20 acres at the Correctional Center, and is permitted for open windrow composting by the Nevada Department of Environmental Protection. The permit was recently expanded (additional 15,000 cubic yards) to allow the facility to handle more pine needles, which are used to blend with other products. The facility accepts ground wood waste, manure, green material, mineral rock powders, recycled sod, topsoil and silt tailings, and food scraps, (including pre-and post-consumer). The operation produces a variety of soil mixes, compost, and custom blends. Full Circle does not provide collection or delivery of materials. The tipping fees range from $50 per ton for green materials and $65 per ton (or $36 per cubic yard) for food scraps. They prefer materials to be brought in loose (not in bags), and compostable service wear and food contaminated paper is also acceptable. Loads contaminated with unacceptable materials (glass and plastic) may be subject to additional charges. Full Circle has indicated there is available capacity to handle organics from Eastern Placer County, and they are willing to work with the County to establish a contract that best needs the requirements of all the interested parties.

Truckee Tahoe Airport

The Truckee Tahoe Airport District Board of Directors is interested in exploring the potential of siting a regional organics processing facility that could also be used as an educational center for students and residents. The Airport District owns property off of Joerger Road. The property consists of a total of 40 acres, 25 of which is flat, open area, located between property owned by the Tahoe-Truckee Sanitation Agency (TTSA) and Tahoe-Truckee Sanitary District. Adjacent to this property is approximately 5-6 acres of land owned by the TTSA. The TTSA is interested in the airport property for use for spray fields. There is the possibility of the Airport District and

TTSA initiating a land swap, giving the Airport District property for potential lease to the County for development of an organics processing facility. The property is separated from the runway by an earthen berm, and power and water service is available or nearby.

3.1.4 Conclusions and Recommendations

The conclusions of the site evaluation are summarized in **Table 7**, including the site screening scores, Pros and Cons of each site, an overview of the types of facilities that could be considered, and the recommendations relevant to each site.

As indicated on Table 3, the Eastern Regional MRF-Upper Area site is recommended for development of an organics processing facility. This recommendation is based on the following factors: the site has adequate space; an existing permit that can be revised to incorporate organics processing; it is located in close proximity to the waste generating source; it has been used for municipal solid waste operations continually since 1973; it is owned by the County; has infrastructure in place; and operations will not affect surrounding land uses. The site could accommodate the development and operation of turned windrow, static pile, or in-vessel composting, or small anaerobic digestion or autoclave technologies. The costs and benefits of development of an organics processing facility at this site will be completed prior to the final report recommendations.

If the County determines not to develop a facility at the Eastern Regional Landfill or MRF site, the Airport District site should be considered for potential development of a facility. The site would be contingent on the land swap between the Airport District and TTSA, and the County and Airport District would need to enter into a lease agreement for use of the property by the County. The site could accommodate the development and operation of covered aerated static pile or in-vessel composting, or small anaerobic digestion or autoclave technologies. The costs and benefits of development of an organics processing facility at this site will be completed prior to the final report recommendations.

For the short-term, the R.T. Donovan site would be the primary recommended location for transporting organic materials to from Eastern Placer County. This site is the easiest to access from Truckee of the two existing, regional composting facilities. The facility has adequate space to handle organics from Eastern Placer County, and has indicated interest in providing this service to the county. Specifics that would need to be determined include, but are not limited to, tipping fee, acceptable material types, contamination rates, and delivery schedules. The costs and benefits of development of an organics processing facility at this site will be completed prior to the final report recommendations.

Table 7. Site Evaluation Conclusions

	Eastern Regional MRF-Upper Area	Eastern Regional MRF-Lower Area	Truckee Tahoe Airport	Full Circle Compost	R.T. Donovan
Site Screening Score	39	32	36	34	34
Pro's	• County owned property • Adequate space • Existing Solid Waste Facility • Infrastructure in place • Local to generating source	• County owned property • Existing solid waste facility • infrastructure in place • Local to generating source	• Local to generating sources • Opportunity for education center • Existing or available utilities • Opportunity to collaborate with Airport District	• Fully permitted composting facility • Accepts green materials and food scraps • Adequate capacity to handle Eastern Placer organics • Will take material in bags	• Fully permitted composting facility • Accepts green materials and food scraps • Adequate capacity to handle Eastern Placer organics • Located 50 miles from Truckee (closer than Full Circle)
Con's	• Will require moving some existing operations • Upgrades to on-site roads will be required • Measures to secure operations from bears	• Area too small for most operations • Measures to secure operations from bears should be considered	• Will require land swap with TTSA • Will require lease agreement with Airport District • Will require new Compostable Materials Handling Facility Permit	• Located 70 miles from Truckee • Round trip trucking approximately 3 hours • Privately owned facility	• Located 50 miles from Truckee • Round trip trucking approximately 2 hours • Privately owned facility

	Eastern Regional MRF-Upper Area	Eastern Regional MRF-Lower Area	Truckee Tahoe Airport	Full Circle Compost	R.T. Donovan
	should be considered		• Wil require CEQA and local land use review and approvals	• Does not provide collection • $36/cy tipping fee for green material • $65/ton tipping fee for food scraps	• Does not provide collection • May not take material in bags • $36/cy tipping fee for green material • $45/ton tipping fee for food scraps
Types of Processing That Could Be Considered at the Site	• Turned windrow • Static piles • In-vessel • Small AD • Autoclave	• Autoclave • Small AD	• Covered aerated static piles • In-vessel • Small AD • Autoclave	• Permitted for windrow processing • Considering aerated static pile pilot	• Permitted for windrow processing
Recommendation	Development at this site should be considered.	Development at this site is not recommended for further evaluation.	Development at this site should be considered	Use of this site is recommended for further evaluation.	Use of this site is recommended for further evaluation.

3.2 POTENTIAL PROCESSING METHODS

There are many technology options for managing most organic materials in the waste stream, each striving to optimize the biological conditions in the mass of material to achieve the most uniform, mature product in a reasonable amount of time. When evaluating alternative processing methods or technologies, key criteria are reviewed and assessed to understand the viability of the technology and process with the specific local dynamics. This section provides an overview of all the technology's identified, their potential development barriers, and discussion of feedstock and product markets in the Eastern Placer County area.

3.2.1 Overview of Organics Processing Technologies

The organics processing technologies that are considered appropriate for the County's feedstock, criteria, and constraints can be broken down into three main categories: composting, digestion, and mechanical/thermal treatment. Within each, there are some sub-types which include:

1. **Composting**
    - Windrow Composting (i.e., turned windrows)
    - Aerated Static Pile (ASP) Composting
    - Aerobic In-Vessel Composting
2. **Digestion**
    - Dry Anaerobic Digestion
    - Wet Anaerobic Digestion
3. **Mechanical/Thermal Treatment**
    - Autoclave
    - Masher/Dryer

A detailed comparison and evaluation of the various processing technologies is provided in **Appendix B**. Information on each category and sub-type are reviewed and organized by a list of elements, some of which include:

- Technology provider background, experience and process
- Plant description, compatibility with proposed organics streams and volumes
- Facility footprint, utilities and labor required
- By-products and energy/biogas production
- Air and waste water emissions

- Facility expansion potential, potential changes in technology or permitting regulations that may impact the technology

The information provided in these tables has been gathered and condensed by SCS from a variety of sources including SCS clients, experienced professionals within SCS, industry trade journal articles, presentations, review of vendor websites and technical information therein, and discussions with vendors. This overview, in combination with technology vendor specifics and processes reviewed, provide the details necessary for evaluating the technology and the viability to be considered within Placer County.

3.2.2 Technology Background Information and Operating Aspects

There are a number of organic material processes that include minimal to large investment including additional equipment. These processes include composting, digestion and mechanical / thermal treatment. This section provides background on each organics process and their operational aspects including a list of technology vendors. A typical organics processing plant usually involves several major pieces of specialty equipment which often are manufactured by different companies, combined with other basic features such as buildings and concrete pads that are easily provided by general contractors. However, the trend in the industry is for the end user (in this case the end user is Placer County) to contract with a single entity for delivery of an entire plant. That contracting mechanism is discussed later in this section.

Some specialty companies that have developed the actual processing technology and/or manufacture/ or supply equipment that employs the technology include the following listed below. Many of the organics processing technologies were developed by companies based in Europe. Some of those companies have expanded operations to the U.S. We have limited the list to those companies that appear to have a U.S. base of operations. However, this does not necessarily mean the plant components from these vendors are currently manufactured in the U.S. SCS does not endorse any of the companies listed. The list is not exhaustive and there are many more companies out there in the industry that can be added once the County has decided on the technology.

3.2.2.1 Composting

All composting is an *aerobic* process, meaning air (oxygen) is introduced, either passively, or actively using mechanical means and the processing is conducted with air present. This is a basic distinction between composting and anaerobic digestion, which operates without the presence of oxygen.

Composting produces no net energy; however, the resulting product of the process is a nutrient-rich soil amendment that in some cases can be used as a fertilizer or fertilizer ingredient. Composting reduces the original volume of feedstock by up to approximately 75%.

Windrow Composting

Windrow composting is typically carried out on a pad constructed of asphalt, concrete, or a low permeability soil layer. Incoming food scraps are generally mixed with ground-up green waste (e.g., the bulking agent) and formed into long parallel piles up to 8 or 9 feet high spaced from 4 to 20 feet apart. The rows are periodically turned with a loader or a specialized turner, and

moistened, at least once per week, over the course of several months. This promotes air transfer through the pile, reduces compaction, and assists in maintaining a consistent moisture level for biological activity to decompose the materials. Because the piles are exposed, fugitive odors can quickly become an issue if the pile parameters are not monitored closely.

A variation of this method uses a biological enzyme added to the piles that stimulates the existing bacteria. The piles are typically covered with an additional layer of mulch to activate the enzyme. The piles are only turned once or twice in this variation before they are moved to the final curing stage.

After the initial curing, the piles are moved to another area of the pad where they will be aggregated into larger stockpiles for final curing. These piles will typically not be turned and will cure for an additional few months. The final product is typically put through a mechanical screen that separates out bulking material and pieces of compost that are larger than the desired size (e.g., anything over ½ inch). These pieces are then put back through the process. Upon completion of this phase, the compost is fully cured and ready to be marketed. The total processing time can vary from 3 to 6 months.

- Windrow Composting Technology Vendors: This technology is very basic and lends itself to applying standard best practices that have been developed over the years and are available from many state and Federal agencies. The major pieces of equipment may include a mechanized windrow turner and product trommel screen. Some companies providing this equipment include:

  - ✓ **Turners**
    - Backhus (c/o Ecoverse Industries Ltd.), Avon, Ohio 440-937-3225
    - Scarab International, White Deer, TX 806- 883-7621
    - Komptech USA, Inc., Westminster, CO 720-890-9090
  - ✓ **Power Screens**
    - McCloskey International, California, 651-829-7883
    - Vermeer Corporation, Pella, Iowa, 641-628-3141

Aerated Static Pile

The aerated static pile method of composting method involves the active addition of air with a mechanical air pump. In this technology, the windrow piles are placed on a pad, over parallel rows of piping that is perforated with small holes. A mechanical pump is used to either produce a slight vacuum in the piping which draws air through the piles, or the air pump can be used to draw in fresh air and pump it through the piping into the windrow piles.

The mechanical aeration reduces the time for curing and ensures that a more uniform level of oxygen is maintained in the piles. Thus, a larger volume of material can be processed versus the basic windrow method. This method does not require the piles to be turned.

Odor management with this composting method is critical, and depending on the air flow direction, may use stand-alone filters consisting of a thick bed of wood chips through which the process air is blown, or special fabrics (i.e., GoreTex®) that covers the piles and assists in restricting odor migration. Total processing time varies from 2 to 4 months.

- Aerated Static Pile Technology Vendors: This system is more complex than windrow composting and requires different equipment to manage the material. Some companies providing this technology include:

  - ✓ McGill Environmental Systems, New Hill, NC 919-362-1161
  - ✓ W.L. Gore & Associates, www.gore.com
  - ✓ Engineered Compost Systems, Inc., Seattle, WA 206-634-2625

In-Vessel Composting

In-vessel composting typically involves placing the feedstock into a large diameter structural tube, or in a series of concrete bunkers, tunnels, or enclosed containers, and subjecting the material to some mechanical processing. The tube configuration, known as rotary drum (RDR), consists of a long, downward sloping and insulated tube that is closed on both ends, sits on rollers, and is turned slowly with an electric motor. The tube usually contains fins inside the shell to flail and shred the material as it slowly makes it way to the lower end of the tube by gravity and the turning action. Air is introduced into the lower end of the tube with an air pump and once it exits the tube is exhausted through a wood chip air filter. After several days of processing, the tube is stopped and the material removed and placed in open windrows and cured for several weeks. After that time, the material is fully cured and ready to be marketed.

In the bunker/ tunnel/container version, the feedstock is placed in long, parallel rectangular bunkers with a concrete floor and walls, or a long completely enclosed rectangular container. In the bunker/tunnel versions, the material remains static and is periodically turned in-place with a mechanical rotor/tiller that travels the length of the bunker on rails fixed atop the walls. Air is drawn through the pile to maintain the aerobic condition and is filtered similarly to the tube method. Total processing time varies from approximately 1 to 2-1/2 months. In the enclosed version, the material is mixed with an internal, slowly rotating blade or paddle, however, the material does not move from one end of the container to the other, until new feedstock is introduced, and then material is pushed out the discharge end.

- In-Vessel Composting Technology Vendors: Two general types of technologies are prevalent, including the rotary drum (RDR) and the tunnel/or bunker or enclosed. Some companies providing systems for this technology include:
  - ✓ **Tunnel / Bunker**
    - Siemens Industry Inc., Hoffman Estates, IL, Ms. Allison Britt, 847-713-8477
    - Hot Rot Organic Solutions (hybrid RDR and bunker), Gerald Tibbo, 902-452-9411
    - Engineered Compost Systems, Inc., Seattle, WA 206-634-2625
  - ✓ **Rotary Drum**
    - DT Environmental, Lynden, WA 800-701-3632
    - B W Organics, Sulphur Springs, TX 903-438-2525
    - Wright Environmental Management, Inc. Richmond Hill, ON Canada 905-881-3950

3.2.2.2 Digestion

Anaerobic digestion (AD) is a process conducted in a vessel or tank where air is *excluded* from the process and the process is actively heated to maintain a temperature ideal for the microorganisms, typically in the 50 to 55 degrees Celsius range. In an AD system, there is a net energy product. As the waste decomposes, it produces biogas, which typically has a methane content of approximately 50 to 80% depending on the process. The methane is an energy source and can be converted to provide electrical power, heat, or compressed natural gas vehicle fuel.

Wet Digestion

The relatively high liquid content and relatively low solids content of sludge and manures have made them adaptable to digestion in tanks. The processing of municipal sludge has been conducted in liquid digester tanks for many decades and at municipal waste water treatment plants. In the past 10 to 15 years, manure has also been processed, mostly on farms, in tanks with and without sludge. Only in the last few years have food scraps been added to the feedstocks processed in tanks. The solid waste industry refers to these digesters as "wet" digesters, or the "low" solids process.

When food scraps are a feedstock, they are typically a secondary feedstock, and are ground-up initially to slurry, then pumped into a holding tank where they are mixed with other feedstock. This slurry then goes into a larger, heated digestion tank, where the bacteria decompose the slurry. The resulting biogas is captured, cleaned and used for energy. The by-product, some liquids and a fibrous solid, can be separated and the solids composted and the liquid used as a soil amendment. This technology is not usually the technology of choice where only food scraps

- Wet Digestion Technology Providers: Some companies that have developed and/or refined the wet digestion process technology and specific equipment include the following.

  - ✓ Quasar Energy Group, Cleveland, OH, 216-986-9999
  - ✓ Harvest Power, Waltham MA 781-314-9500
  - ✓ Clean World, Goldriver CA 800-325-3472

All of these vendors have facilities operational in the last several years with new projects under design/construction in the U.S.

Dry Digestion

Another variation of the basic anaerobic digestion process that has evolved to a reliable technology for processing food wastes in Europe in the last 20 years is known as the "dry" or "high solids" process. This same process has come to the U.S. in the last 5 years or so.

The dry digestion process can be conducted in a single stage, or in two stages. The latter provides digestion in two distinct stages: 1) a hydrolysis stage; and 2) a methanogenesis stage. The two-stage process is more complex and initially a higher cost, however, it has some definite advantages, including shorter processing time, greater throughput, higher methane concentration, better efficiency, and a lower cost per unit volume of waste processed.

In the single stage process, food scraps are placed directly into one of several parallel concrete or steel chambers where they form an elongated pile. The chamber door is sealed, a vacuum pump removes the remaining air and the digestion process starts. As the pile is decomposing, liquid leachate is collected and continually sprayed back over the pile to maintain correct moisture. Biogas is withdrawn and collected in a gas holder, usually sitting atop the chambers. After approximately 21 to 28 days the decomposition is complete, the resulting solid material (i.e., the digestate) is removed and taken for composting. The biogas is processed similarly as in the wet digestion process.

In the two-stage process, the food scraps are initially loaded into a chamber as in the single stage and are processed in a similar manner, however the process time is much shorter because the hydrolysis period is very short. The partially digested solids are mixed and discharged into another sealed vessel where the methane is formed. After approximately 14 days the decomposition is complete, the resulting solid material (i.e., the digestate) is removed and taken for composting. The compost process takes from 50 to 60 days.

The biogas is processed similarly as in the wet digestion process. However, because of the higher methane content in the two-stage (approximately 65 to 80%) compared to 50 to 65% in the single-stage, the biogas clean-up is more efficient and less costly.

This technology is marketed by several firms, mostly originating in Europe where the technology has been in use for a few decades. An average net energy output for the dry digestion technology is approximately 200 kilowatt hours per ton (kwh/ton).

- **Dry Digestion Technology Providers:** Some companies that have developed and/or refined the dry digestion process technology and specific equipment include the following.

  - ✓ Harvest Power, Waltham MA 781-314-9500
  - ✓ Organic Waste Systems (OWS), 513-535-6760
  - ✓ BIOFerm Energy (Viessmann technology) , 608-467-5523
  - ✓ Eisenmann, 815-900-1443
  - ✓ Zero Waste Energy (KOMPOFERM and SMARTFERM technology), 415-265-1339

All of these vendors have facilities that have either started operation in the last several years or are under design/construction in the U.S.

3.2.2.3 Mechanical/Thermal Treatment

Some additional technologies have appeared in the market that are focused on food scrap processing including autoclave and a masher-dryer.

Autoclaving is a process conducted in a vessel, where the feedstock is subjected to high temperature, steam pressure, and mechanical turning action that convert the food scraps to liquid and a fibrous solid. The process reduces the volume of material by approximately 85%, and recovers recyclables either with pre-sorting or screening following processing. The product is

approximately 95% organic, and when dried, can be composted or used as an energy source. The product can be pelletized for use in a boiler, with a heating value of approximately 7,550 BTU per pound, which is greater than wood pellets. The technology has a relatively small footprint, and can be combined with an existing Transfer Station and/or MRF, utilizing existing pre-sorting. shredding, and screening equipment.

The masher-dryer initially grinds up the food scraps into small pieces and then uses heat to dehydrate the solids and then sizing equipment to produce a uniform shaped nugget. The nuggets are marketed as an animal feed supplement.

- Mechanical / Thermal Treatment Technology Providers: These vendors have recently started operations in the last year, are under design/construction or looking to establish a market in the U.S.

  - ✓ **Autoclave**
    - WastAway, McMinnville, TN 800- 431-9571
    - NOWON, Buenos Aires, Argentina
  - ✓ **Masher / Dryer**
    - Sustainable Alternatives Feed Enterprises (SAFE) Andrew Keratzides 775-682-4325

3.2.3 Existing Facilities and Capacity

An estimate of the number of commercial-scale operating plants in the U.S. using the technologies reviewed is provided in **Table 8**. There are hundreds more operations using the various composting technologies than compared to those using digestion technologies for organics (i.e., food scrap) processing. Turned windrows account for the largest segment, followed by ASP, and then in-vessel. And of the third category, Mechanical / Thermal, there are only a few operating facilities in the U.S.

Table 8. Estimated Number of Organics Processing Facilities in the U.S.

Windrow Composting	Aerated Static Pile	In-Vessel	Wet Anaerobic Digestion (1)	Wet Anaerobic Digestion (2)	Dry Anaerobic Digestion (3)	Mechanical /Thermal Autoclave	Mechanical /Thermal SAFE process
>300	>50	<10	<5	>25	>30	1	1

(1) Utilizing food scraps only

(2) Utilizing other organic feedstock (i.e., manures, sludge, etc.) but including food scraps

(3) Possibly utilizing other organic feedstock (i.e., agricultural residual) but including food scraps

Table 9 summarizes the 2014 survey information from BioCycle magazine of the number and capacity (tons per year) of organics processing facilities in the U.S.

Table 9. Number and Capacity of Organics Processing Facilities

Capacity (tons per year)	<5,000	<20,000	Over 20,000
Number of facilities	2,354	713	218

The approximate 3,000 TPY of organics that the County may have available is within the largest segment of existing facilities.

3.2.4 Potential Barriers to Technology Development

Organics processing technologies and their future development are not immune to changes in environmental laws, the economy, and the availability of markets. Potential barriers to the development of any technology include:

3.2.4.1 Environmental Laws

California's mandatory organics recycling law necessitates the development of new facilities to process organics. The State Air Resources Board, which has jurisdiction over the implementation of AB 32, the Greenhouse Gas Emissions Reduction legislation, has indicated they may support landfill bans of organics if progress is not made on greenhouse gas emission reductions. Furthermore, elimination of diversion credit for use of greenwaste as Alternative Daily Cover in 2020 will also necessitate the need for additional facilities to handle this material.

3.2.4.2 Economics

Competing against "cheap" landfill space and low oil /natural gas prices may put some new organics energy conversion technologies out of the market. In regions where the price offered by power companies to purchase power generated from alternative energy producers is based on the cost of oil and natural gas may have the same effect. This can significantly impact the long term economics of power production projects.

3.2.4.3 Lack of markets

Although composting has been around for decades the widespread acceptance and use of the product has been not nearly as good as expected. Although the scientific case for the benefits to agriculture appear to be clear, the agricultural market in some areas of the U.S. cannot justify the extra cost of the product, or do not believe they have a need for the extra benefits that compost provides. We also have been told by some large agri-businesses that they need large, consistent quantities of compost, something that the private or municipal market has not been able to provide. And in one case in southern California, where an authority is co-composting biosolids with food scrap organics, the resulting compost has been shunned by the local farmers, for fear of contaminating the crop and risk to the public.

3.3 ASSESSMENT OF FEEDSTOCK AND PRODUCT MARKETS

An important aspect of the project was to identify the availability of potential food waste residue generated within Eastern Placer County (County) from sources outside of Tahoe Truckee Sierra Disposal (TTSD) services, and to assess the viability of potential markets for all by-products that are generated for each of the organics processing technologies being considered. This information is based on discussions with County stakeholders, online research performed, and phone conversations with potential generators and purchasers of material to fully assess the feasibility and opportunities available.

3.3.1 Potential Feedstock

In addition to food scraps generated from the County municipal solid waste (MSW) stream, other sources of feedstock for the organics processing technologies should be considered. These additional sources will help maximize the use of the facility, provide additional tipping fee revenues, assist other businesses or municipalities in the region to implement organics recycling, and add volume to the system during seasonal fluctuations of organic materials.

The following generators were identified and contacted to determine if they produce a suitable feedstock (ranging from yard trimmings to biosolids) for the organics processing technologies, and if they were interested in working with the County.

- Public Works Departments (including fire districts and schools)
- Landscapers
- Golf courses
- Boarding stables
- Recreational facilities

Following an initial interview, if the generator was identified as a potential opportunity, additional questions were asked in order to develop a comprehensive list of feedstock sources. The information summarized in Table 10, including the material type and potential volume available, the distance from Truckee and the number of businesses interested and not interested, and total number contacted.

Table 10. Potential Feedstock Generators

Material	Estimated Cubic Yards Per Week	Estimated Cubic Yards Annually	Distance from Truckee (miles)	# of Businesses Interested	# of Businesses Not Interested	# of Businesses Did Not Return Call	Total Businesses Contacted
Yard Trimmings	200	10,400	10 to 90	3	1	7	11
Wood Waste	350	18,200	10 to 50	3	0	0	3
Bio Solids	25	1,300	10 to 50	2	1	1	4
Total	575	29900	10 to 90	8	2	8	18

According to the initial research performed, there are 10,400 cubic yards of yard trimmings, 18,200 cubic yards of wood waste, and 1,300 cubic yards of biosolids available for consideration

and transport to a new facility. There were a significant number of businesses that did not return calls and may be an opportunity for feedstock.

3.4 POTENTIAL MARKETS FOR PRODUCTS

Another critical component to assessing whether a specific technology will be a feasible option is to understand the products of each technology and if there are markets for the products that will offset the costs and potentially create a revenue source for the facility. There are four products that would be generated from the technologies under consideration:

1. Compost / soil amendment
2. Liquid digestate used as liquid fertilizer
3. Compressed Natural Gas
4. Solid pulp for Refuse Derived Fuel

Depending on the availability of vendors who would want to purchase the material and the amount they will need, this initial research will help assess the likelihood that markets are available.

A summary of the market information is included in **Table 11**, including the product type, existing demand, location in relation to Truckee, and the potential interest of businesses that were contacted.

Table 11. Potential Markets

Material	Estimated Cubic Yards Per Week Used	Distance from Truckee (miles)	# of Businesses Interested	# of Businesses Not Interested	# of Businesses Did Not Return Call	Total Businesses Contacted
Compost / Soil Amendment	2,031	13 to 85	11	7	0	18
Compressed Natural Gas	0	0 to 37	1	2	1	4
Dry Digestate	0	87	1	0	0	1
Liquid Digestate	0	0	0	0	0	0
Solid Pulp - Refuse Derived Fuel	0	87	1	0	0	1

3.4.1 Compost/Soil Amendment

According to the research performed, there are five key users that would consider purchasing compost from the County if a superior product is produced. The product would be used for water conservation and for adding nutrients into soils. The potential users include:

- Public Works Departments (including Department of Transportation and schools)
- Landscapers
- Golf courses
- Farms
- Nurseries

The research revealed 11 out of the 18 contacts paid between $20-$99 per cubic yard for compost, and the number of purchases ranged from several times a month to several times per year.

It should be noted that local and state governments can help drive market demand, as well as provide demonstration projects promoting the benefits of products generated from the waste conversion technologies it utilizes. The California drought provides an opportunity for Placer County to use local ordinances that impose water conservation requirements and to ensure landscaping maintenance practices are aligned with local conditions and existing environmental constraints. Mandates can include the use of mulch in areas of exposed soil to reduce evaporation and the use of soil amendments to increase the water holding capacity of the soil at County buildings, schools, and roadways. Soil amendments can also be applied to lands that have been ravaged by fire, aiding in their restoration.

3.4.2 Liquid Digestate

Liquid fertilizer, made from waste processing technologies, has not been widely introduced into mainstream soil amendment markets in the Placer County area. After contacting various industries identified as likely candidates for the use of liquid digestate, many representatives interviewed were not familiar with its composition or did not understand the benefits of its use to consider purchasing and applying to their soils. It is recommended that the County consider outreach and education to highlight uses and benefits, to introduce potential users to the product. Potential uses include:

- Farms
- Brownfield Site Restoration
- Parks
- Athletic Fields

3.4.3 Compressed Natural Gas (CNG)

Companies that would benefit from easy to obtain sources of CNG for their fleet in the Truckee area are Waste Management (WM) which is located in Reno and Tahoe Area Regional Transit (TART), located in Truckee. WM is interested to discuss, however the distance from Reno to Truckee would not be cost-effective. TART could access a pump station at ERL/ERMRF, and this potential use should be investigated further.

3.4.4 Dry Fluff for Energy or Agriculture

Fluff from the autoclave technology is a potential feedstock for electricity production or agricultural use. Biomass to energy, an industry currently centered on burning woody debris, is exploring the potential of adding the mostly organic solid pulp to their portfolio of fuel types. In addition, the fluff has the potential to be used in agricultural applications, including as a soil binder or amendment.

3.5 MARKET PRICING FOR PRODUCTS

To provide a comprehensive market analysis, it is important to understand product pricing for materials currently sold in the region. Research was performed to identify the existing markets for the products that will be generated, including compost, liquid digestate, CNG and fluff,

3.5.1 Compost / Soil Amendments

The local vendors, products and current market prices are shown in **Table 12.**

Table 12. Existing Market Prices for Compost Products

Supplier	Tahoe Truckee Sierra Disposal (TTSD)		Home Depot (Reno, NV)	Full Circle	RT Donovan	Tahoe Sand & Gravel	Oxborrow Trucking	Reno Rock Transport
Product	**Cu/Yd**	**Ton**	**Cu/Yd**	**Cu/Yd**	**Cu/Yd**	**Cu/Yd**	**Cu/Yd**	**Cu/Yd**
Compost			$128.79	$99.00	$35.00	$48.00 (mix)	$35.00	$30.00
Topsoil		$25.00			$20.00		$30.00	$22.00
Wood Chips	$9 - $35			$4.00				
Pine Needles	$7.00			$4.00				
Mulch			$1.50 - $6	$65.00	$18.00			
Bark			$1.50 - $3		$18.00	$53.00	$40.00	$46.00

As indicated in Table 12, compost is sold between $30 and $129 per cubic yard. Other prices are comparable to those currently being charged at ERL/ERMRF.

3.5.2 Liquid Digestate

SCS was unable to uncover any businesses in the Eastern Placer County area that currently sell liquid digestate as a fertilizer. Therefore, we were not able to receive a price for the commodity that is local.

Two sources that market their by-product from a wet anaerobic digestion process were found in Oakland and Los Angeles: East Bay Municipal Utility District's (EBMUD) and Kellogg Garden Products (Kellogg). EBMUD's digestate comes predominantly from wastewater biosolids with a small fraction from source-separated commercial organics (food scraps) from municipal sources. Currently, 75% of the digestate is "beneficially used" as Alternative Daily Cover (ADC), and the remainder is applied to non-food crop land ("land application"). EBMUD pays approximately $30-$35 a ton for trucking and land application.

While these two outlets, ADC and land application, are fairly typical, Kellogg produces and markets compost and fertilizer from the Los Angeles Sanitation District's bio solids. Kellogg is a private company which purchases SoilPro made from composted bio solids (sewage sludge) and manufactures a variety of lawn and garden soil products which include **Nitrohumus**, Gromulch, Amend and Topper. The product is bagged and sold to homeowners and landscapers through retail centers in California and other states. About 70% of Kellogg's total annual sales are of composted biosolids products which represents about 250,000 cubic yards per year.

3.5.3 Compressed Natural Gas (CNG)

No businesses interviewed in the Eastern Placer County area would provide their pricing for CNG. A search using the internet[3], identified a CNG refueling station at 1901 Airport Road South Lake Tahoe that sells CNG for $3.60 per GGE (Gallon Gasoline Equivalent) and the PG&E Auburn Service Center at 333 Sacramento Street Auburn that sells CNG for $2.65 per GGE.

An alternative to selling gas from a refueling station would be to work with the local utility, Southwest Gas Supply, to add CNG to their pipeline. There are a number of anaerobic digestion facilities that have tried to pipe CNG and electricity back through the utility. In some cases it works and in others it is challenging to finalize a contract.

3.5.4 Dry Fluff

IHi Power Service Corporation was contacted to see about the possibility of their Lincoln California facility taking dry fluff at their biomass facility. They are currently not permitted to accept material generated from food waste, however would be interested to discuss further if the autoclave technology is chosen.

3 http://www.altfuelprices.com/station_map.php

4.0 PERMITTING REQUIREMENTS AND REGULATIONS

Development of a new organics processing facility in the County would include a number of permits and approvals from State and local agencies. A new facility would require a Compostable Materials Handling Facility Permit from the California Department of Resources Recycling and Recovery (CalRecycle). This is applicable for a green materials composting facility that has more than 12,500 cubic yards of feedstock, compost, or chipped and ground material on-site at any one time. In order to obtain the permit, a number of documents must be prepared, reviewed and subsequently approved by the regional regulatory body, in this case the County Department of Environmental Health, acting as the Local Enforcement Agency (LEA) for CalRecycle. The permit will be concurred upon by CalRecycle. The documents include the Permit Application and the Report of Composting Site Operation.

In addition, a Finding of Conformance with the County Siting Element (CSE) must be approved. The CSE requires that prior to the development of such facilities, the facility proponent must: (1) show the project is consistent with the CSE; (2) undergo a vigorous site specific assessment and permitting process at the Federal, State, and local levels; and (3) address all environmental concerns as mandated by CEQA. The local task force would determine whether a particular project is consistent with the CSE and its Siting Criteria through a Finding of Conformance process.

All compostable material handling operations and facilities must prepare, implement and maintain a site-specific odor impact minimization plan. A complete plan must be submitted to the LEA with the permit application. The Odor impact minimization plan provides guidance to on-site operation personnel by describing, at a minimum, the following items. If the operator will not be implementing any of these procedures, the plan must explain why it is not necessary.

The facility would also undergo review under the California Environmental Quality Act (CEQA), and evaluation of potential significant impacts associated with construction and operation of the facility would determine whether a Mitigated Negative Declaration or full Environmental Impact Report (EIR) would be required. Potential impacts could include Air Quality, Odors, Traffic, and Land Use, to name just a few. If development of an anaerobic digestion is proposed, the project could utilize the EIR prepared by the State for that purpose.

Local land use approval for a project would also be required, including consistency with the General Plan and Zoning ordinance. Issues such as location in a County Community Standards District, proposed operation type, and type and quantity of materials to be handled are all factors that would be evaluated to determine the land use approval process for a proposed organics management facility. The authority for determining the consistency with the General Plan lies with the government of the local jurisdiction in which the project is located or to be located. As such, the siting and protection of the areas identified for future use as solid waste facilities are subject to the land use regulations (e.g., General Plan, Zoning, and Land Use Permits) of the local jurisdictions.

5.0 COST ANALYSIS

The purpose of the cost analysis was to evaluate food waste collection and processing options. A cost model was developed based on the analysis and results from the research and analysis previously performed, and financial data from Tahoe Truckee Sierra Disposal (TTSD). The following information describes the financial baseline for current conditions, cost model findings, projected revenue requirements and customer fees, and overall findings.

5.1 FINANCIAL BASELINE

The SCS team compiled background information provided by TTSD, including the organics pilot study and operating information, such as existing labor, fuel, and electrical rates, hauling expenses and haul distances. This information was reviewed and then used in the cost model to establish a current financial baseline for services and customer fees within Eastern Placer County.

5.2 COST MODEL WORKSHEETS

Using the financial data and background information gathered from TTSD and the organics processing technology companies, and the hauling/processing scenarios, a cost model was developed to provide a comprehensive analysis of the financial requirements for each scenario analyzed. The model can be found in Appendix C and summarized below.

The first section of the cost model compares the costs by account on an annual and monthly basis (picked-up once a week) for the nine (9) processing/haul scenarios. Each scenario includes two collection options; A) bin collection and B) yellow bag collection.

The second, third and fourth sections model the bin and yellow bag collection options and the organics pilot study including results as provided by TTSD.

The fifth through thirteenth section models the nine (9) hauling/processing scenarios which include:

1. Processing – Windrow
2. Processing – ASP
3. Processing – In Vessel
4. Processing – Dry AD
5. Processing – Wet AD
6. Processing – Autoclave
7. Haul – Full Circle
8. Haul – R. T. Donovan
9. Sustainable Alternative Feed Enterprises **(**SAFE)

Each sheet includes the assumptions, cost estimates and projected revenues (as appropriate) for the particular collection option, processing and haul scenarios. The annual costs for collection, hauling, processing, and tip fee, as appropriate for each scenario, is accumulated on the Summary Sheet of the model. These figures are totaled to arrive at an annual cost by scenario for each of the two (2) collection options for comparison purposes. The annual cost was then converted to a monthly cost per account (picked-up once per week), based upon TTSD assumptions as discussed below.

5.3 ASSUMPTIONS

The model contains many assumptions which are clearly identified within each of the worksheets. The major assumptions, described below, are either; 1) base assumptions common to all parameters of the model; or 2) specific assumptions only assumed for a particular collection option or processing/haul scenario.

5.3.1 Base Assumptions

- Total food waste available: 6,000 tons per year (tpy)
- Capture rate: 50%
- Total food waste collected: 3,000 tpy
- Days collected per year: 260 days/year
- Pounds (lbs.) per customer per pick-up: 300 lbs. (based on TTSD pilot study data of 400 lbs. per customer per pick-up at 75% full)
- Capital cost financing: 5% interest rate, 20 years, 5% cost of capital to finance
- Contractor overhead: 10%
- Contingency: 15%

5.3.2 Specific Assumptions - By Collection Option

A. Bin Collection – a system of collecting source separated food scraps by TTSD as represented in their pilot program and offered only to commercial customers that generate food waste.
    - Cost: $137.13 per customer per month based on pilot study and assumptions of maximum 32 customers per route and 6.08 tons per vehicle.

B. Yellow Bag Collection - a system comprised of distributing yellow bags to commercial customers participating in the food scraps program. The customers will fill the yellow bags with food scraps, seal and place the bags in their standard commercial waste containers. TTSD will pick up the regularly scheduled waste containers, which will include a mix of commercial waste and yellow bags. The loads will be transported to ERL/ERMRF, where the yellow bags will be segregated from the waste for further processing
    - Pounds (lbs.) per yellow bag: 30 lbs.
    - Number of pick-ups per day: 77

- Yellow bag sorting cost: $20 per ton based upon similar operations

5.3.3 Specific Assumptions – By Processing/Haul Scenario

1. Windrow Processing - open air windrow process, where piles of organics are continually turned until composted and then moved to another area for curing, screening and final compost production and marketing.
    - Wood chips required: 6,000 tpy
    - Operating days: 7 days per week
    - Required area: 2.8 acres
    - Personnel: 1
    - Equipment: Windrow turner, bobcat, screen
2. Aerated Static Pile (ASP) Processing - open air process, where windrows are placed over a fixed aeration system which aerate the piles until composted and moved to another area for curing, screening and final compost production and marketing.
    - Wood chips required: 6,000 tpy
    - Operating days: 7 days per week
    - Required area: 2.8 acres
    - Personnel: 1
    - Equipment: Aeration pipe, fittings and blowers, bobcat, screen
3. In-Vessel Processing – organic materials are fed through a vessel that processes it into a compostable material which is then moved to another area for curing, screening and final compost production and marketing.
    - Wood chips required: 910 tpy
    - Operating days: 7 days per week
    - Building: 32’ x 210’ fabric building
    - Personnel: 1
    - Equipment: Vessel , bobcat, screen
4. Dry Anaerobic Digestion Processing – organics are delivered to a bunker with no air (anaerobic) and are kept in this bunker until the material degrades to almost a compost-like material, while the system is collecting biogas and converting this gas into electricity for sale to the grid. The dry digestate will be moved to another area for curing, screening and final compost production and marketing.
    - Wood chips required: 2,000 tpy

- Operating days: 7 days per week
- Required area: 1.3 acres (only for non-enclosed improvements)
- Personnel: 1
- Equipment: Dry Anaerobic equipment (fermenters, blowers, pumps, biofilters, CHP system), windrow turner, bobcat, screen
- Revenues: Electrical sales

5. Wet Anaerobic Digestion Processing - organics are delivered to a tank, made into slurry and subjected to a process to that of a waste water digester. The biogas is also collected and converted to electricity or other fuel; a digestate is produced that can be dried, composted, and cured.
    - Wood chips required: none
    - Operating days: 7 days per week
    - Building: 2,500 sf
    - Required area: 1.0 acres (only for non-enclosed improvements)
    - Personnel: 1
    - Equipment: Wet Anaerobic equipment (vessels, buffer tanks, screw press, digester, pumps, valves, flare, CHP system), bobcat
    - Revenues: Electrical sales
6. Autoclave Processing - organic materials are fed into a series of tanks, subjected to steam and high temperature which sterilizes the material and creates a fluff or biomass type material. When dry, the product can be used as a fuel, sold as fibers, or used in agricultural application.
    - Wood chips required: none
    - Operating days: 7 days per week
    - Building: 5,000 sf
    - Required area: 1.0 acres (only for non-enclosed improvements)
    - Personnel: 1
    - Equipment: Autoclave equipment (conveyors, autoclaves, boiler, steam generator, water system, screen), bobcat
    - Product: Fluff; reduces volume of incoming material by 83%.
7. Full Circle Haul - transfer food scraps to Full Circle compost facility in Carson City, NV.
    - Round trip to Carson City: 4 hours (including load/unload)

- Payload: 20 tons per vehicle
- Haul cost: $120 per hour
- Tip fee: $65 per ton

8. RT Donovan Haul - transfer food scraps to Donovan compost facility in Sparks, NV.
   - Round trip to Sparks: 3 hours (including load/unload)
   - Payload: 20 tons per vehicle
   - Haul cost: $120 per hour
   - Tip fee: $45 per ton
9. Sustainable Alternative Feed Enterprises (SAFE) - commercial source separated food scraps are taken to the "spoke" facility where contaminants are screened out and produced into a mash. The mash is delivered to the main "hub" facility for further refining into animal feed product.
   - Wood chips required: none
   - Operations: Food waste collected and delivered to spoke (assumed near TTSD or ERL/MRF) for processing; processed material then delivered to Hub (assumed near Sparks)
   - Facilities: Spoke for processing and clean-up of food waste; Hub for processing into final product for sale
   - Product: Animal feed. Reduces raw food waste feedstock to 25% of original quantity.

5.4 REVENUE REQUIREMENTS, EXPENSES AND CUSTOMER FEES

SCS utilized the cost model to evaluate the revenue requirements to support the potential food waste collection and processing options on an annual basis. The revenue requirement represents what must be collected to pay system expenditures necessary to support the targeted levels of service while meeting financial obligations. The revenue requirement includes current and/or potential capital expenditures of the various collection and processing options. These results are summarized in the Summary sheet in the model and shown in **Table 13.**

Table 13. Estimated Capital and Annual Costs

Technology/Processing	Capital Costs	O&M
Windrow Composting		
Total Annual Cost ($/year)	$ 1,277,000	$ 400,000
Total with Annualized Capital Costs (5.0%, 20 yrs, 5% fin cost)		$ 508,000
Aerated Static Pile Composting		
Total Annual Cost ($/year)	$ 1,336,000	$ 374,000
Total with Annualized Capital Costs (5.0%, 20 yrs, 5% fin cost)		$ 487,000
In-Vessel Composting		
Total Annual Cost ($/year)	$ 2,250,000	$ 118,280
Total with Annualized Capital Costs (5.0%, 20 yrs, 5% fin cost)		$ 308,280
Dry Anaerobic Digestion		
Total Annual Cost ($/year)	$ 6,137,000	$ 452,000
Total with Annualized Capital Costs (5.0%, 20 yrs, 5% fin cost)		$ 969,000
Wet Anaerobic Digestion		
Total Annual Cost ($/year)	$ 7,001,000	$ 333,000
Total with Annualized Capital Costs (5.0%, 20 yrs, 5% fin cost)		$ 923,000
Autoclave Processing		
Total Annual Cost ($/year)	$ 5,300,000	$ 263,000
Total with Annualized Capital Costs (5.0%, 20 yrs, 5% fin cost)		$ 710,000
Full Circle Haul		
Total Annual Cost ($/year)	$ -	$ -
Total with Annualized Capital Costs (5.0%, 20 yrs, 5% fin cost)		$ -
Donovan Haul		
Total Annual Cost ($/year)	$ -	$ -
Total with Annualized Capital Costs (5.0%, 20 yrs, 5% fin cost)	$ -	$ -
SAFE System		
Total Annual Cost ($/year)	$ 5,580,000	$ 225,000
Total with Annualized Capital Costs (5.0%, 20 yrs, 5% fin cost)		$ 772,000

6.0 EVALUATION AND SCORING OF TECHNOLOGIES

6.1 SCORING METHODOLOGY

The methodology used to score and rank the technologies combined attributes of the technology with county requirements, and the land use and siting issues. The scoring system assigned a point value to each criteria, either 0, 1, or 2. A score of 2 would represent a favorable assessment, and 0 representing a much less favorable assessment or no suitability/compatibility. Scoring is a combination of the understanding of factual information and collective judgment. So, differences between a technologies that receives a score of 2, versus one that receives a 1 for a criteria, may be for all practical purposes similar and for that criteria, one technology is not "better" than another.

The evaluative criteria are weighted because some criteria are more important, or could be considered more or less accommodating for a technology. The individual weighting factors range from 0 to 5. The actual assignment of a weighting factor for each of the criteria can be a relatively straightforward or more involved process. For the purposes of this assessment, SCS will assign weighting to each factor based on its judgment and experience; however, as the County proceeds to the final technology selection stage, it may wish to refine the weighting factors based on community input.

Weighting factors, like the point score system, are part objective and part subjective and should be understood to have a range even though it is a specific number. For example, a weighting factor of 4 for a criteria, could conceivably, given other opinions, vary from say 3 to 5.

For each criteria, a weighted score was generated. The score is the product of the point assigned times the weight for that criteria. The scores for each potential technology was then summed to obtain a total score for the technology.

6.2 SCORING RESULTS

6.2.1 Technology Scoring

The results of the technology and County criteria scoring are shown in **Table 14**. As indicated, in some cases, two or more technologies will have scores that are very close, yet, the limitations of the ranking procedure only allows for one site to be ranked first. In reality, some technologies ranked other than first may potentially be as appropriate as the first ranked technology, given the inherent limitations and uncertainties in data interpretation and judgments, that cannot be totally eliminated in the process, and are reflected in the scoring and weighting aspects.

Table 14. Technology Scoring Results

Criteria	TECHNOLOGY SCORE						
	WINDROW COMPOSTING	ASP COMPOSTING	IN-VESSEL COMPOSTING	DRY ANAEROBIC DIGESTION	WET ANAEROBIC DIGESTION	AUTOCLAVE	SAFE
A. TECHNOLOGICAL	**54**	**54**	**57**	**53**	**52**	**54**	**31**
Status of technology	10	10	10	10	10	10	5
Years of operating history	8	8	8	4	4	8	0
Feedstock Material	8	8	8	4	4	8	4
Landfill diversion (percent by weight of feedstock sent to landfill)	10	10	10	10	10	5	0
Zero Waste Discharge Facility	2	2	2	2	2	2	2
Quantity of water required	2	2	2	2	1	1	2
Power requirements	2	2	2	2	2	1	2
Net energy production	0	0	0	0	0	0	0
RPS eligibility	0	0	0	4	4	4	0
Emissions within Federal and State regulations	8	8	8	8	8	8	8
Potential to emit Odors	3	3	6	6	6	6	6
Creation of Green Jobs	1	1	1	1	1	1	2
B. COUNTY CRITERIA	**20**	**20**	**13**	**16**	**13**	**17**	**23**
Capital costs ($/ton of daily capacity)	8	8	4	4	4	8	8
Unit operating cost	0	0	0	0	0	0	0
Tipping fee (based on reference facility(ies))	6	6	3	3	0	3	3
By-Product revenue	0	0	0	0	0	3	6
Energy Revenue	0	0	0	3	3	0	0
Markets for By-Products	6	6	6	6	6	3	6
TOTAL	**74**	**74**	**70**	**69**	**65**	**71**	**54**

6.2.2 Combined Technology and Siting Scoring

The technology scoring information was then combined with the siting scoring to obtain a ranking of technologies with sites. These results are shown in **Table 15**. As indicated in red, combining the ERMRF- Upper Area site with the windrow or ASP composting technology ranked the highest, and next highest were the autoclave at the ERMRF –Upper Area or windrow or ASP at the Airport site.

Although this approach attempts to limit the potential for bias or subjectivity in the scoring and ranking, the ranking and final selection of a site and a technology can be highly controversial. Ultimately, as the process moves toward a final decision, the process may be subjected to intense political pressures that can have relatively little to do with the evaluative criteria herein and can significantly delay or even stop the process entirely.

Table 15. Combined Scoring of Technologies and Sites

		TECHNOLOGY SCORE						
		Windrow Composting	ASP Composting	In-Vessel Composting	Dry Anaerobic Digestion	Wet Anaerobic Digestion	Autoclave	SAFE
SITE SCORE		**74**	**74**	**70**	**69**	**65**	**71**	**46**
ERMRF-Upper Area	**39**	113	113	109	108	104	110	93
ERMRF-Lower Area	**32**	106	106	102	101	97	103	86
Full Circle	**34**	108	108	104	103	99	105	88
RT Donovan	**34**	108	108	104	103	99	105	88
Truckee Tahoe Airport	**36**	110	110	106	105	101	107	90
Tahoe-Truckee Sanitation Agency	**26**	100	100	96	95	91	97	80

7.0 RECOMMENDATIONS

Based on the results of the scoring and ranking, and the project team's experience working on similar projects, it is recommended the County pursue a two phase approach to organics processing. This phased approach will enable the County to comply with the requirements of AB 1826, while allowing time for the development of a new processing facility. The first phase would be implemented in January 2016, and it is anticipated Phase 2 could begin in mid-2016, with anticipated completion by the middle of 2018. The two phases are described below:

Phase 1: Contract for Collection and Hauling of Food Waste for Composting at Remote Location

Under this phase, TTSD will collect food waste from existing customers. The material will be hauled to RT Donovan in Reno for composting. Based on the financial analysis, this is considered the most effective method for meeting AB 1826 requirements in the short-term. The County can utilize this approach while initiating and undertaking Phase 2.

Phase 2: Develop processing facility in Eastern Placer County.

Based on the results of the technology screening, county criteria, and siting criteria, it appears the most appropriate technology is either covered aerated static pile or in-vessel composting, to be located either in at the Eastern Regional MRF or on the Airport District site. Composting is a proven technology that has been in practice for many years, and the County could either operate themselves, or contract out for the operation of a composting facility.

The Autoclave technology also scored very high in comparison to the other technologies. The Autoclave technology could provide a solution to the County for processing organics, with the benefit of either reducing the volume of material that is required to be hauled from the area, or producing an energy product that could be used internally at the facility, or could be sold to other users. It is recommended the County include this technology in its considerations for development.

Although the SAFE technology scored low, it could provide an opportunity for the County to have a local solution to its food waste diversion needs, with options to either operate themselves or contract out for the collection and operation.

For all technologies, the estimated costs are seen in **Table 16** and include all collection (based on 3,000 tons per year, 32 customers per route or 6.08 tons/vehicle, and all material taken to ERMRF), processing (capital costs annualized based on 5.0%, 20 yrs., 5% financing cost), haul and tip fees, depending on the option. Each of the monthly fees are based on one time a week collection with an estimated 300 pounds of material serviced (average provided by TTSD) based on 3,000 tons annually collected.

In order to select the technology and site that is most cost-effective and appropriate for the County, the next step in the process will be for the County to prepare a request for proposals and solicit responses from firms experienced with these types of processes, and evaluate the potential for siting at either location.

Table 16. Estimated Collection and Processing Costs

Technology/Collection & Processing Type	Bin Collection
Windrow Composting	
Total Annual Cost ($/year)	$ 1,151,000
Cost per month per account (1x) ($/mo)	$ 249
Aerated Static Pile Composting	
Total Annual Cost ($/year)	$ 1,130,000
Cost per month per account (1x) ($/mo)	$ 245
In-Vessel Composting	
Total Annual Cost ($/year)	$ 951,280
Cost per month per account (1x) ($/mo)	$ 206
Dry Anaerobic Digestion	
Total Annual Cost ($/year)	$ 1,572,000
Cost per month per account (1x) ($/mo)	$ 341
Wet Anaerobic Digestion	
Total Annual Cost ($/year)	$ 1,518,000
Cost per month per account (1x) ($/mo)	$ 329
Autoclave Processing	
Total Annual Cost ($/year)	$ 1,353,000
Cost per month per account (1x) ($/mo)	$ 293
Full Circle Haul	
Total Annual Cost ($/year)	$ 1,195,000
Cost per month per account (1x) ($/mo)	$ 259
Donovan Haul	
Total Annual Cost ($/year)	$ 1,046,000
Cost per month per account (1x) ($/mo)	$ 227
SAFE System	
Total Annual Cost ($/year)	$ 1,359,000
Cost per month per account (1x) ($/mo)	$ 294

APPENDIX A
SCORING MATRIX

Criteria	Weight	Scoring Details	Point Scale
A. TECHNOLOGICAL CRITERIA			
Status of technology	5	Commercial	2
		Demo/Pilot	1
		None	0
Years of operating history	4	>5 years	2
		2-5 years	1
		<2 years	0
Vendor Qualifications (company structure; legal history; environmental compliance)	3	High	2
		Medium	1
		Low	0
Feedstock Material	4	Food and Green Material	2
		Food Only	1
		Other	0
Landfill diversion (percent by weight of feedstock sent to landfill)	5	>90%	2
		80%-90%	1
		<80%	0
Zero Waste Discharge Facility	1	Yes	2
		No	0
Quantity of water required	1	<100 gal/ton	2
		100-300 gal/ton	1
		>300 gal/ton	0
Power requirements	1	<200 kWh/ton or 10% of parasitic load	2
		200-400kWh/ton or 10%-15% of parasitic load	1
		>400kWh/ton or >15% of parasitic load	0
Net energy production	3	>600 kWh/ton	2
		400-600 kWh/ton	1
		<400 kWh/ton	0
RPS eligibility	2	Yes	2
		No	0
Emissions within Federal and State regulations	4	Yes	2
		No	0
Potential to emit Odors	3	High	0
		Medium	1
		Low	2
Creation of Green Jobs	1	0	0
		0-5	1
		>5	2

B. COUNTY CRITERIA			
Capital costs ($/ton of daily capacity)	4	<$200,000/ton	2
		$200,000-$400,000/ton	1
		>$400,000/ton	0
Unit operating cost	3	<$50/ton	2
		$50-75/ton	1
		>$75/ton	0
Tipping fee (based on reference facility(ies))	3	<$55/ton	2
		$55-$100/ton	1
		>$100/ton	0
By-Product revenue	3	>$80/ton	2
		$50-80/ton	1
		<$50/ton	0
Energy Revenue	3	>$0.08/kWh	2
		$0.05-$0.08/kWh	1
		<$0.05/kWh	0
Markets for By-Products	3	Local	2
		Regional	1
C. FACILITY LOCATION CRITERIA			
Land use and location: compatible with existing and surrounding land uses	4	Yes	2
		No	1
Access: Accessible by existing road network	3	Yes	2
		No	1
Located in proximity to waste generators	2	Yes	2
		No	1
Adequate space for proposed operations	3	Yes	2
		No	1
Property Owned by Agency	3	Yes	2
		No	1
Need for Vector, Bird, and Animal Control	3	Yes	1
		No	2
Aesthetics: Potential for negative impacts to views and vistas	3	Yes	1
		No	2

APPENDIX B
TECHNOLOGY EVALUATION TABLES

TABLE 1
DETAILED COMPARISON OF PROCESSSING METHODS AND TECHNOLOGIES

CRITERIA	ORGANIC PROCESSING TECHNOLOGIES						
	WINDROW COMPOSTING	ASP COMPOSTING	IN-VESSEL COMPOSTING	DRY ANAEROBIC DIGESTION	WET ANAEROBIC DIGESTION	AUTOCLAVE	SAFE
Type of Technology	• Windrows turned regularly for aeration by purpose-built machinery • Aerobic decomposition of organics	• Windrows are not turned • Can be open or covered • Aerated mechanically (via air pump) • Aerobic decomposition of organics	• Composting in a container or building (long tubes, and tunnels) • Aeration provided mechanically (via air pump) • Aerobic decomposition of organics • Supplemental windrow composting optional	• Organic feed in anoxic, enclosed tunnel/chamber • Leachate is captured and sprinkled over feed • Biogas is captured and for use/sell • Anaerobic decomposition of organics	• Mechanical pretreatment often required • Bulk tank environments. • Biogas is captured for process use or to sell • Anaerobic decomposition of organics	• Mechanical pretreatment and screening required • Closed vessel decomposition by heat and pressure and shearing action • Liquid and solid residuals byproducts	• Food scrap collection at business, placed in truck with auger, taken back to facility for further processing into mash and decontamination, mash sent to processing facility and made into feed.
Technology Provider (example vendors provided)	• Can be self-provided or contracted • Example compost turner providers: o Backhus o Scarab o Komptech	•Operation can be self-provided or contracted • Example aerated static pile (ASP) providers include o O2 Compost, o Engineered Compost Systems o Harvest Power	• Example providers include: o Christiaens Group o Rotocom o NaturTech Composting Systems o Engineered Compost Systems	• Example providers include o ZWED o BioFERM o Harvest Power o Eisenmann o Organic Waste Systems o Kompogas AG	• Example providers include o Waasa o Biotechnische Abfallverwertung GmbH & Co. KG (BTA) o STRABAG Umweltanlagen (formerly Linde-KCA)	• Only one known provider of fully operational facility o WastAway	• Sustainable Alternatives Feed Enterprises
Provider Background, Experience, and Resources	• Many vendors at locations nationwide • Widely practiced technology, allowing for large variety of providers and equipment • Most equipment information is readily available online	• Many vendors at locations nationwide • Relatively wide variety of vendors and equipment • Most equipment information is readily available online	• Vendors mostly from Europe or North America • Majority of vendors demonstrate at least 5 years experience • Several vendors demonstrate over a decade of experience • Very few facilities processing food waste and of small capacity	• Many projects in Europe • Larger vendors demonstrate at least a decade of experience • Approximately 5 systems operating in U.S. • Example provider experience: o Organic Waste Systems (27 years) o Waste Recovery Systems (34 years) o Kompogas (20 years)	• Very few providers for wet AD of food waste • As of 2008, projects mostly located in Europe • Only 3 wet AD systems for MSW in North America (Canada) • Example wet AD provider experience: o Waasa (26 years) o BTA (30 years) o STRABAG Umweltanlagen (20 years)	• Only one functional facility in the U.S. (TN, opened 2003) • Another facility in Aruba	• Only one location in Santa Clara that has one spoke and one hub. A pilot was started for the City of San Jose and Sunnyvale for residential services in Fall 2015.
Vendor Contracting Mechanism (i.e., Design-Build-Own-Operate (DBOO), Licensing Only, etc.)	• Vendor can Own-Operate • County can Own-Operate	• Vendor can Own-Operate • County can Own-Operate	• Typically design-build-own-operate (DBOO)	• Typically DBOO • Some institutions Own-Operate	• Typically DBOO	• TN facility is co-op (Publically owned)	• Vendor pays for truck retrofit and on-site decontamination and masher. TTSD can operate the hauling and processing side. • Vendor can be a partial owner of dehydration and feed processor (hub).
Basic Process and Plant Description	• For compost windrows up to (10'x10') • Turned regularly by machinery • Turning provides aerobic breakdown of waste	• Air is forced through the windrow with blowers and tubing • Aerobic decomposition of organics	• Compostable organics placed in a closed container o Continuous feed or batch feed • Container turned, agitated, or aerated to provide aeration • Aerobic decomposition of organics	• Organics are introduced either vertically or horizontally • Plug-flow process • Inoculation or mixing of initial feed may be required • Atmospheric air is evacuated from chamber and biogas reintroduced into chamber • Steam and process water may be used to dilute feed as needed • Residual solids can be pressed and dewatered for cake production	• Feedstock prescreened • Slurry pumped into a homogenization tank, then anoxic tank • Aerobic decomposition of organics • Post-digester may be required for further breakdown of digestate and for biogas collection • Dewatering of solids byproduct is necessary	• Organic waste is preshredded and prescreened • Additional screens for further size reduction • Waste introduced continuously into an autoclave o 375 deg. F o 125 psi. • Final "Fluff" screened and dried for resale as an RDF	• 10ft width by 55ft length for on-site processing, 10,000 sqft for dehydration and feed processor (hub). • Material from County taken to hub and processes, average 50 tons a day.

TABLE 1
DETAILED COMPARISON OF PROCESSSING METHODS AND TECHNOLOGIES

CRITERIA	ORGANIC PROCESSING TECHNOLOGIES						
	WINDROW COMPOSTING	ASP COMPOSTING	IN-VESSEL COMPOSTING	DRY ANAEROBIC DIGESTION	WET ANAEROBIC DIGESTION	AUTOCLAVE	SAFE
Stated Material and Energy Balance; and Volume Reduction	• Total volume reduction approximately 75%	• Total volume reduction approximately 75%	• Total volume reduction approximately 75%	• Biogas output: 170 - 250 kwh/ton • Digestate output: 0.85 ton/ton	• Biogas output: 110 - 160 kwh/ton • Digestate output: 0.85 ton/ton • 0.4 ton CO2 emissions offset per ton food waste processed • 22,000 tons CO2 offset for proposed throughput) compared to composting.	• Potential for up to 80% volume reduction • High energy use	• For every ton of food waste approximately 200 gallons of water and 20-30 gallons of FOG is removed. For every 4 tons of food scraps you will get 1 ton of dry product bagged at facility.
Laboratory and Pilot Scale Plants	Yes.	Yes	Yes.	Yes.	Yes.	Yes.	Yes.
Operating Commercial Plant(s) of Comparable Capacity	• Many nationwide	• Many nationwide	• LRI Landfill Compost Factory - Puyallup, WA (75,000 tpy)	• Zero Waste Energy Company - San Jose, CA operating since December 2013 • Monterey Regional Waste Authority (20 TPD) operating since 2014	• Quasar Energy (Ohio) JC Biomethane - Junction City, OR (30,000 tpy, operating since mid 2013)	• WastAway - McMinnville, TN (25,000 - 30,000 tpy, operating since 2003)	• One in Santa Clara
Number and Location of Operating Facilities	• Hundreds in various location of the U.S. • Typically 5,000 tpy to 20,000 tpy	• A few dozen in various locations of the U.S.	• Several small facilities processing less than 5 tpd. • Two large plants in Cobb County, GA and Sevier County, TN.	• 33 AD (wet and dry) facilities identified in U.S. • BioFERM has provided more than facilities globally • Dozens operating throughout Europe o some large (i.e. greater than 150,000 TPY)	• 33 AD (wet and dry) facilities identified in U.S. • Most wet AD facilities in the U.S. designed for the treatment of organics along with of biosolids, manures and green wastes	• One fully functional plant in the U.S.A • Another fully functional plant in Aruba	• One in Santa Clara • 40-60 tons a day of clean food scrap, technology is scalable.

TABLE 2
DETAILED COMPARISON OF PROCESSSING METHODS AND TECHNOLOGIES

CRITERIA	ORGANIC PROCESSING TECHNOLOGIES						
	WINDROW COMPOSTING	ASP COMPOSTING	IN-VESSEL COMPOSTING	DRY ANAEROBIC DIGESTION	WET ANAEROBIC DIGESTION	AUTOCLAVE	SAFE
Compatibility with Proposed Organic Material Stream(s)	• Typical feed compatible with the proposed waste stream • Food waste will likely require mixing with other organics to achieve design C:N ratio	• Typical feed compatible with the proposed waste stream • Waste stream will likely require mixing with other organics stream to achieve design C:N ratio	• Can process organics with higher composition of food residuals • Will likely require mixing with other organics stream to achieve design C:N ratio	• Continuous feed recommended for optimal microbial vitality • Will likely require mixing with other organics stream to achieve design C:N ratio	• Wet AD process is more susceptible to toxics diffused in liquid media, • Will likely require mixing with other organics stream to achieve design C:N ratio • Junction City wet AD system is capable of operating on 80% food waste	• Autoclave hydrolysis only demonstrated on MSW waste streams • Should also provide breakdown of solely food residuals, but not yet demonstrated	• Typical feed compatible with the proposed waste stream.
Compatibility with Proposed Organic Materials Volumes	• Typically less than 50,000 tpy • Capable of handling proposed volume with adequate acreage	• Capable of handling proposed waste stream volume • Demonstrated processing of greater than 100,000 tpy	• Capable of handling proposed waste stream volume • Demonstrated processing of greater than 100,000 tpy	• Capable of handling proposed waste stream volume • Typically 10,000 tpy to 100,000 tpy	• Capable of handling proposed waste stream volume • Typically 3,000 tpy to 250,000 tpy	• No demonstrated compatibility for solely food residuals • One known plant operating at 15,000 tpy	• Will need to scale down a bit for current food scraps tonnage.
Facility Footprint Required	•10-12 acres for processing area only	8-12 acres for processing area only	• 8 acres for processing area only	• 8 acres for processing area only	• 8 acres for processing area only	1-2 acres for processing area only	• 10ft width by 55ft length for on-site processing, 10,000 sqft for dehydration and feed processor (hub).
Supporting Utilities	• Compatible with those present at the proposed site	• Compatible with those present at the proposed site	• Compatible with those present at the proposed site	• Compatible with those present at the proposed site	• Compatible with those present at the proposed site	• Compatible with those present at the proposed site	• Spoke – electrical, a plug in system • Hub – involve electricity and gas – will get us that information
Labor requirements	• Approximately 3-4 personnel	• Approximately 3-4 personnel	• Approximately 3-4 personnel	• Approximately 5- 10 personnel	• Approximately 5- 10 personnel	Approximately 3-5	They require 1 – 2 FTE maximum to manage the operation at the “Spoke”. SAFE would manage the “Hub”.
Primary Equipment and Structures	• Compost turner or loader • Compost screen • Impervious padding • Leachate control system	• Tubing • Blowers • Leachate control system • Concrete pad • Compost screen	• Composting vessel (vertical or horizontal) • Tunnel • Chamber • Drum • Agitated bed • Auger • Blowers • Piping for aeration	• Pre-screening pumps • Conveyors • Augers • Dry-digester vessel and gas collection apparatus • Blowers • Biogas filters • Dewatering screws/presses/centrifuges • Digestate collection piping • Pumps • Tanks	• Pre-screening pumps, conveyors • Augers • Dry-digester vessel and gas collection apparatus • Blowers • Biogas filters • Dewatering screws/presses/centrifuges • Digestate collection piping • Pumps • Tanks	• Vessel • Steam boiler • Conveyors	• Retrofitted truck and contaminant unit on site.

TABLE 2
DETAILED COMPARISON OF PROCESSSING METHODS AND TECHNOLOGIES

CRITERIA	ORGANIC PROCESSING TECHNOLOGIES						
	WINDROW COMPOSTING	ASP COMPOSTING	IN-VESSEL COMPOSTING	DRY ANAEROBIC DIGESTION	WET ANAEROBIC DIGESTION	AUTOCLAVE	SAFE
By-Products: Volume, Potential Markets, and Pricing	• Compost - fertilizer for agricultural crops • Average price: $21/yard	• Compost - fertilizer for agricultural crops • Average price $21/yard	• Compost - fertilizer for agricultural crops • Biogas for direct use, sale, or refinement to CNG	• Biogas for direct use, sale, or refinement to CNG • Residual solids (additional processing and addition of green waste creates Compost)	• Biogas for direct use, sale, or refinement to CNG • Liquid digestate (liquid fertilizer) • Residual solids (additional processing and addition of green waste creates Compost)	• Solid pulp, “Fluff,” that can be dried for energy production or agricultural use	• Dry meal and FOG
Net Energy/Biogas Production	• N/A	• N/A	• N/A	• Biogas output: 170 - 250 kwh/ton • 1- 3 scf biogas/lb wet weight • Estimated biogas energy production from 150 to 200 kwh/ton wet weight	• Biogas output: 110 - 160 kwh/ton • 2 - 4 scf biogas/lb. wet weight	• Resource Derived Fuel (RDF) with energy content of 4,000 - 9,000 BTU per pound of final product	• None
Air and Wastewater Emissions Management	• Volatile emissions/odors/dust control • Dust suppression and control • Screening materials • Leachate and residue must be managed properly	• Volatile emissions/odors/dust controls • Dust suppression and control • Screening materials • Leachate and residue must be managed properly	• Air and leachate managed more easily • Biofilter systems used to clean air • Leachate collection systems used for leachate management	• Volatile emissions (i.e. Biogases) can be harvested • Liquid digestate recycled or disposed of • Dewatered cake can be further processed to be sold as compost	• Volatile emissions (i.e. Biogases) can be harvested • Liquid digestate recycled or disposed of • Dewatered cake can be further processed to be sold as compost	• Volatile emissions/odors • Dust suppression and control • Leachate	• Liquid from Mash
Safety Aspects	• Equipment training (compost turners) • Site security (fencing, cameras, etc.) • Site security (fencing, cameras, etc.) • Robust fire control system is required	• Site security (fencing, cameras, etc.) • A number of fires have occurred at composting operations. Robust fire control system is required	• Site security (fencing, cameras, etc.) • Confined space entry • Machinery more complex than windrow composting operations • May require additional training for safe operations • A number of fires have been reported for composting operations. A robust fire control system is required	• Site security (fencing, cameras, etc.) • Confined space entry • Skilled plant operators with thorough understanding of AD processes are required for safe and optimal plant operation	• Site security (fencing, cameras, etc.) • Confined space entry • Skilled plant operators with thorough understanding of AD processes are required for safe and optimal plant operation	• Site security (fencing, cameras, etc.) • Confined space entry • Heat and pressure components must be managed properly • Exposure to process emissions must be reduced	• Site security (fencing, cameras, etc.) • Machinery / Auger operations • May require additional training for safe operations

TABLE 3
DETAILED COMPARISON OF PROCESSSING METHODS AND TECHNOLOGIES

CRITERIA	ORGANIC PROCESSING TECHNOLOGIES						
	WINDROW COMPOSTING	ASP COMPOSTING	IN-VESSEL COMPOSTING	DRY ANAEROBIC DIGESTION	WET ANAEROBIC DIGESTION	AUTOCLAVE	SAFE
Potential Changes in Technology that May Impact the Organics Program.	• Potential change relatively low • Well established since 1970's • Fairly standardized • Research ongoing for harvesting of composting heat	• Potential change relatively low • Well established for several decades • Fairly standardized, though means of aeration may vary • Research ongoing for harvesting of composting heat	• Some potential for process change • Practiced for decades • Leachate and emissions collection methods refined • Research ongoing for harvesting of composting heat	• Newer technology than wet AD • The process is continually refined • Potential for improved technologies in future years, as demand increases	• Food residuals wet AD facilities relatively new • Relatively high potential for technology improvement • Greater general risk because of novelty	• Relatively high potential for technology improvement • Short-term risk due to novelty of process • Technology in early development stage – room for technology improvement	• Food residuals with this process is relatively new • Relatively high potential for technology improvement • Short-term risk due to novelty of process • Technology in early development stage – room for technology improvement
Potential Changes in Permitting Regulations that May Impact the Technology	• Management of volatile emissions (greenhouse gases) could become more stringent	• Management of volatile emissions (greenhouse gases) could become more stringent	• N/A - leachate and emissions can be readily handled	• If amended with biosolids, land application restrictions may apply for dewatered cake • Stricter wastewater regulations could also affect reuse of digestate	• If amended with biosolids, land application restrictions may apply for dewatered cake • Stricter wastewater regulations could also affect reuse of digestate	• Stricter emissions controls could apply in future	• None know of, this process is typical of other food processing techniques (hub). • Potential for stricter storm water regulations.
Facility Expansion Potential	• Expansion limited primarily by on-site acreage • Growth is possible if food collection is conducted effectively	• Expansion limited primarily by on-site acreage • Growth is possible if food collection is conducted effectively	• Can be expanded as space allows by adding additional modules • Growth is possible if food collection is conducted effectively	• Yes - expansion would be possible if tonnage increased.	• Overall process capacity based on a fixed design capacity • Some flexibility in the composition of the organics stream for additional food residuals	• Ability to add additional units.	• Ability to add additional spokes or increase the hub.
Potential Collection Vehicle Fuel Application	• N/A - no biogas is captured during windrow composting	• N/A - no biogas is captured during ASP composting	• N/A - no biogas is captured during in-vessel composting	• Typically biogas from 1 ton organics produces energy equivalent of 60 L diesel fuel • Biogas output quantity likely insufficient to justify CNG vehicle fueling capital costs	• Typically biogas from 1 ton organics produces energy equivalent of 60 L diesel fuel • Biogas output quantity likely insufficient to justify CNG vehicle fueling capital costs	• N/A - autoclave apparatus is not equipped to collect residual gases	• N/A - no biogas is captured during process.

APPENDIX C
COST MODEL

Processing Technology	**Windrow**

Design Basis

Input tons per year (tpy)	**2016**	
Food waste	3,000	
Wood chips	6,000	
Other organics	-	
Total initial operations (tpy)	**9,000**	For initial operations
Days per year operational	365	
Tons per day for initial operations - rounded (tpd)	**25**	For initial operations
Building enclosures (sf)		Not required for windrow operation
Food waste receiving and unloading enclosure		
Food waste storage		
Processing equipment		
Unload digestate		
Maintenance area		
Total building area (sf)	0	
Non-enclosed improvements (sf)		
Receiving and unloading area	3,000	
Compost pad	60,000	~ 22 rows
Material stockpile	2,000	
Mixing area	5,000	
Grinding area	0	Assume material does not need grinding; small amount done by TTSD
Curing pad	22,500	
Storage pad	4,000	
Finished compost screening area	5,000	
Equipment storage area	500	
Roadways	4,000	
Retention pond	14,000	
Total non-enclosed improvements	**120,000**	
Total acres for non-enclosed improvements	**2.8**	
Equipment Requirements		
Windrow turner	1	
Bobcat	1	
Screen	1	

Operating Basis

Labor requirements (total all shifts)	**Number**	**Rate/w benefits ($/hr)**	**Overtime factor**	**Shifts**	**Hours/Shift**	**Days/Year**	
Manager	-	$ 50.00	1	1	8	365	
Supervisors/operator	1	$ 34.00	1	1	8	365	Need 2nd manager/operator for weekends/holidays
Equipment operators	-	$ 30.60	1	1	8	365	
Rolling stock operators	-	$ 30.60	1	1	8	365	
Mechanics (maintenance done off-site)	-	$ 47.18	1	1	8	260	
General laborers	-	$ 22.53	1	1	8	365	

Other		
Water consumption (1000 CF/year)	-	High percentage of food waste supplies moisture
Effluent requirement (1000 CF/year)	-	Retention pond
Power requirement (kWh/year)	29,000	Security lights
Fuel requirement (diesel gals/year)	15,000	Equipment
Operating Hours per Day	8	

Processing Technology	**Windrow**	
Availability (%)	100%	Windrow operation will be active 24/7
Net electricity produced (kWh/year)	-	N/A
Electrical sales rate ($/kWh)	-	N/A

Economic Analysis

Capital Cost					
Site improvements & buildings (as needed)	$	702,000		Total asphalt	12,000
Startup and acceptance testing (1 month of operations)	$	-	N/A	Total compact soil	108,000
Subtotal	**$**	**702,000**			
Design (10%)	$	70,000			
Construction management (4%)	$	28,000			
Permitting (6%)	$	42,000			
Contingency (15%)	$	105,000			
Subtotal	**$**	**947,000**			
Land	$	-			
Stationary equipment installed(w/spare parts)	$	50,000	Screen		
Rolling stock	$	280,000	Used scarab & bobcat		
Total Capital Costs	**$**	**1,277,000**			
Annual Operations & Maintenance Cost					
Labor	$	99,000			
Wood chip purchase	$	48,000	Offset TTSD revenues		
Facilities maintenance	$	5,000			
Rolling stock & stationary equipment maintenance costs	$	33,000			
Rolling stock replacement costs	$	35,000			
Stationary equipment replacement costs	$	6,000			
Utilities	$	4,000	Security lights		
Fuel	$	60,000			
General & administration/legal,/accnt.	$	5,000			
Insurance	$	25,000	Estimate		
Property taxes	$	-	County property		
Subtotal	**$**	**320,000**			
Contractor overhead (10%)	$	32,000			
Contingency (15%)	$	48,000			
Total O&M costs	**$**	**400,000**			
Annualized Capital Cost (5.0%, 20 yrs, 5% fin cost)	$	108,000			
Total Annual Cost	**$**	**508,000**			
Potential Revenues					
Potential Materials Market Revenues ($/year)	**$**	**-**	Conservative, give away compost		
Potential Electricity Revenues ($/year)	**$**	**-**	N/A		
Total potential revenues	**$**	**-**			
Net Annual Cost	**$**	**508,000**			

NET ANNUAL COST ($/year)	**$**	**508,000**

2 Processing Technology — ASP (Aerated Static Pile)

Design Basis

Input tons per year (tpy)	**2016**	
Food waste	3,000	
Wood chips	6,000	
Other organics	-	
Total initial operations (tpy)	**9,000**	For initial operations
Days per year operational	365	
Tons per day for initial operations - rounded (tpd)	**25**	For initial operations
Building enclosures (sf)		Not required for windrow operation
Food waste receiving and unloading enclosure		
Food waste storage		
Processing equipment		
Unload digestate		
Maintenance area		
Total building area (sf)	0	
Non-enclosed improvements (sf)		
Receiving and unloading area	3,000	
Compost pad	60,000	~ 71 rows, shorter for blower to work
Material stockpile	2,000	
Mixing area	5,000	
Grinding area	0	Assume material does not need grinding; small amount done by TTSD
Curing pad	22,500	
Storage pad	4,000	
Finished compost screening area	5,000	
Equipment storage area	500	
Roadways	4,000	
Retention pond	14,000	
Total non-enclosed improvements	**120,000**	
Total acres for non-enclosed improvements	**2.8**	
Other improvements		
Aeration pipe	4,615	
Aeration fittings	577	
Blowers	35	
Equipment Requirements		
Windrow turner	0	
Bobcat	1	
Screen	1	

Operating Basis

Labor requirements (total all shifts)	**Number**	**Rate/w benefits ($/hr)**	**Overtime factor**	**Shifts**	**Hours/Shift**	**Days/Year**	
Manager	-	$ 50.00	1	1	8	365	
Supervisors/operator	1	$ 34.00	1	1	8	365	Need 2nd manager/operator for weekends/holidays
Equipment operators	-	$ 30.60	1	1	8	365	
Rolling stock operators	-	$ 30.60	1	1	8	365	
Mechanics (maintenance done off-site)	-	$ 47.18	1	1	8	260	
General laborers	-	$ 22.53	1	1	8	365	

Other		
Water consumption (1000 CF/year)	-	High percentage of food waste supplies moisture
Effluent requirement (1000 CF/year)	-	Retention pond
Power requirement (kWh/year)	63,000	Security lights & blowers
Fuel requirement (diesel gals/year)	7,000	Equipment

2 Processing Technology — ASP (Aerated Static Pile)

Operating Hours per Day	8	
Availability (%)	100%	ASP operation will be active 24/7
Net electricity produced (kWh/year)	-	N/A
Electrical sales rate ($/kWh)	-	N/A

Economic Analysis

Capital Cost

Site improvements & buildings (as needed)	$	893,000		Total asphalt	12,000
Startup and acceptance testing (1 month of operations)	$	-	N/A	Total compact soil	108,000
Subtotal	**$**	**893,000**			
Design (10%)	$	89,000			
Construction management (4%)	$	36,000			
Permitting (6%)	$	54,000			
Contingency (15%)	$	134,000			
Subtotal	**$**	**1,206,000**			
Land	$	-			
Stationary equipment installed(w/spare parts)	$	50,000	Screen		
Rolling stock	$	80,000	Bobcat		
Total Capital Costs	**$**	**1,336,000**			

Annual Operations & Maintenance Cost

Labor	$	99,000	
Wood chip purchase	$	48,000	Offset TTSD revenues
Facilities maintenance	$	5,000	
Rolling stock & stationary equipment maintenance costs	$	20,000	
Rolling stock replacement costs	$	10,000	
Stationary equipment replacement costs	$	25,000	
Utilities	$	9,000	Security lights & blowers
Fuel	$	28,000	
General & administration/legal,/accnt.	$	5,000	
Insurance	$	50,000	Estimate
Property taxes	$	-	County property
Subtotal	**$**	**299,000**	
Contractor overhead (10%)	$	30,000	
Contingency (15%)	$	45,000	
Total O&M costs	**$**	**374,000**	
Annualized Capital Cost (5.0%, 20 yrs, 5% fin cost)	$	113,000	
Total Annual Cost	**$**	**487,000**	

Potential Revenues

Potential Materials Market Revenues ($/year)	**$**	**-**	Conservative, give away compost
Potential Electricity Revenues ($/year)	**$**	**-**	N/A
Total potential revenues	**$**	**-**	
Net Annual Cost	**$**	**487,000**	

NET ANNUAL COST ($/year)	**$**	**487,000**

3 Processing Technology — In-Vessel

Based on proposal from BDP Industries for Agitated Bay In-Vessel Composting System (ICS) - 2 (150 foot bays)

Design Basis

Input tons per year (tpy)	**2016**	
Food waste	3,000	
Wood chips	910	
Other organics	-	
Total initial operations (tpy)	**3,910**	For initial operations
Days per year operational	365	
Tons per day for initial operations - rounded (tpd)	**11**	For initial operations

Building enclosures (sf)		
Building for Vessel	6,720	32'x210' fabric building
Food waste storage		
Processing equipment		
Unload digestate		
Maintenance area		
Total building area (sf)	**6,720**	

Equipment Requirements	
Windrow turner	0
Bobcat	1
Screen	1
Vessel	1

Operating Basis

Labor requirements (total all shifts)	**Number**	**Rate/w benefits ($/hr)**	**Overtime factor**	**Shifts**	**Hours/Shift**	**Days/Year**
Manager	-	$ 50.00	1	1	8	365
Supervisors/operator	1	$ 34.00	1	1	8	365
Equipment operators	-	$ 30.60	1	1	8	365
Rolling stock operators	-	$ 30.60	1	1	8	365
Mechanics (maintenance done off-site)	-	$ 47.18	1	1	8	260
General laborers	-	$ 22.53	1	1	8	365

Other		
Water consumption (1000 CF/year)	-	High percentage of food waste supplies moisture
Effluent requirement (1000 CF/year)	-	Retention pond
Power requirement (kWh/year)	350,000	Security lights & vessel
Fuel requirement (diesel gals/year)	7,000	Equipment
Operating Hours per Day	8	
Availability (%)	100%	In-Vessel operation will be active 24/7
Net electricity produced (kWh/year)	-	N/A
Electrical sales rate ($/kWh)	-	N/A

BDP Package (not incl biofilter floor) See Appendix for scope 600,000$
@4,000 sf Biofilter incl concrete, floor and 200,000$
Screen 150,000$
Small Loader 100,000$
Subtotal
1,050,000$

PROFESSIONAL SERVICES

Design/Permitting 150,000$
Construction Supervisor (6 months) 90,000$
Subtotal
240,000$

TOTAL
Includes all freight but no taxes
2,000,000$

Economic Analysis

Capital Cost		
Site Preparation		
Site Preparation	**$ 50,000**	1 acre
Utility Interconnection	**$ 200,000**	Electrical, Sewer, Water est.
	$ 250,000	
Compost Building		
Building	$ 210,000	32'x210' fabric building
Concrete	$ 110,000	
HVAC/Aeration Duct Material and Labor	$ 50,000	
Misc Equip Material and Labor	$ 30,000	
	$ 400,000	

3	**Processing Technology**		**In-Vessel**	
	MCC (Motor Control Room)	**$**	**220,000**	200 sf pre-fab bld
	Curing/Screening Pad	**$**	**30,000**	1,000 sf asphalt
	Amendment recycle/storage	**$**	**10,000**	1,000 sf
	Major Process Equipment			
	BDP Package (not incl biofilter floor)	$	650,000	with frieght $50,000
	4,000 sf Biofilter incl concrete, floor	$	200,000	
	Screen	$	150,000	
	Small loader	$	100,000	
		$	**1,100,000**	
	Professional Services			
	Design/Permitting	$	150,000	
	Construction Supervisor (6 months)	$	90,000	
		$	**240,000**	
	Total Capital Cost	**$**	**2,250,000**	
	Annual Operations & Maintenance Cost			
	Labor	$	40,000	
	Wood chip purchase	$	7,280	Offset TTSD revenues
	Building maintenance	$	15,000	
	Equipment maintenance	$	15,000	
	Electrical	$	36,000	
	Fuel	$	5,000	
	Water/Sewer		TBD	
	Total O&M costs	**$**	**118,280**	
	Annualized Capital Cost (5.0%, 20 yrs, 5% fin cost)	**$**	**190,000**	
	Total Annual Cost	**$**	**308,280**	
	Potential Revenues			
	Potential Materials Market Revenues ($/year)	**$**	**-**	Conservative, give away compost
	Potential Electricity Revenues ($/year)	**$**	**-**	N/A
	Total potential revenues	**$**	**-**	
	Net Annual Cost	**$**	**308,280**	
	NET ANNUAL COST ($/year)	**$**	**308,280**	

4 Processing Technology — Dry AD (Anaerobic Digestion)

Design Basis

Input tons per year (tpy)	**2016**	
Food waste	3,000	
Wood chips	2,000	
Other organics	-	
Total initial operations (tpy)	**5,000**	For initial operations
Days per year operational	365	
Tons per day for initial operations - rounded (tpd)	**14**	For initial operations
Building enclosures (sf)		
Building		
Food waste storage		
Processing equipment		
Unload digestate		
Maintenance area		
Total building area (sf)	**-**	
Non-enclosed improvements (sf)		
Receiving and unloading area	2,500	
Compost pad	22,500	~ 11 rows
Material stockpile	1,000	
Mixing area	-	
Grinding area	0	Assume material does not need grinding; small amount done by TTSD
Curing pad	12,000	
Storage pad	1,500	
Finished compost screening area	4,000	
Equipment storage area	500	
Roadways	4,000	
Retention pond	9,500	
Total non-enclosed improvements	**57,500**	
Total acres for non-enclosed improvements	**1.3**	
Equipment Requirements		
Windrow turner	1	
Bobcat	1	
Screen	1	
Dry Anaerobic Equipment Package	1	

Operating Basis

Labor requirements (total all shifts)	**Number**	**Rate/w benefits ($/hr)**	**Overtime factor**	**Shifts**	**Hours/Shift**	**Days/Year**	
Manager	-	$ 50.00	1	1	8	365	
Supervisors/operator	1	$ 34.00	1	1	8	365	Need 2nd manager/operator for weekends/holidays
Equipment operators	-	$ 30.60	1	1	8	365	
Rolling stock operators	-	$ 30.60	1	1	8	365	
Mechanics (maintenance done off-site)	-	$ 47.18	1	1	8	260	
General laborers	-	$ 22.53	1	1	8	365	

Other		
Water consumption (1000 CF/year)	-	High percentage of food waste supplies moisture
Effluent requirement (1000 CF/year)	-	Retention pond
Power requirement (kWh/year)	230,000	Security lights & Dry AD System
Fuel requirement (diesel gals/year)	10,000	Equipment
Operating Hours per Day	8	
Availability (%)	100%	Dry AD operation will be active 24/7
Net electricity produced (kWh/year)	805,920	
Electrical sales rate ($/kWh)	$ 0.05	

4 Processing Technology — Dry AD (Anaerobic Digestion)

Economic Analysis

Capital Cost					
Site improvements & buildings (as needed)	$ 4,264,000	With Dry AD Package	Total asphalt	10,500	
Startup and acceptance testing (1 month of operations)	$ 38,000		Total compact soil	46,000	
Subtotal	**$ 4,302,000**				
Design (10%)	$ 430,000				
Construction management (4%)	$ 172,000				
Permitting (6%)	$ 258,000				
Contingency (15%)	$ 645,000				
Subtotal	**$ 5,807,000**				
Land	$ -				
Stationary equipment installed(w/spare parts)	$ 50,000	Screen			
Rolling stock	$ 280,000	Used scarab & bobcat			
Total Capital Costs	**$ 6,137,000**				
Annual Operations & Maintenance Cost					
Labor	$ 99,000				
Wood chip purchase	$ 16,000	Offset TTSD revenues			
Facilities maintenance	$ 5,000				
Rolling stock & stationary equipment maintenance costs	$ 71,000				
Rolling stock replacement costs	$ 35,000				
Stationary equipment replacement costs	$ 6,000				
Utilities	$ 35,000	Security lights & Dry AD System			
Fuel	$ 40,000				
General & administration/legal,/accnt.	$ 5,000				
Insurance	$ 50,000	Estimate			
Property taxes	$ -	County property			
Subtotal	**$ 362,000**				
Contractor overhead (10%)	$ 36,000				
Contingency (15%)	$ 54,000				
Total O&M costs	**$ 452,000**				
Annualized Capital Cost (5.0%, 20 yrs, 5% fin cost)	$ 517,000				
Total Annual Cost	**$ 969,000**				
Potential Revenues					
Potential Materials Market Revenues ($/year)	**$ -**	Conservative, give away compost			
Potential Electricity Revenues ($/year)	**$ 40,000**				
Total potential revenues	**$ 40,000**				
Net Annual Cost	**$ 929,000**				

NET ANNUAL COST ($/year)	**$ 929,000**

5 Processing Technology — Wet AD (Anaerobic Digestion)

Stirred Tank

Design Basis

Input tons per year (tpy)	**2016**	
Food waste	3,000	
Wood chips	-	
Other organics	-	
Total initial operations (tpy)	**3,000**	For initial operations
Days per year operational	365	
Tons per day for initial operations - rounded (tpd)	**9**	For initial operations
Building enclosures (sf)		
Building	2,500	
Food waste storage		
Processing equipment		
Unload digestate		
Maintenance area		
Total building area (sf)	**2,500**	
Non-enclosed improvements (sf)		
Total site improvement area	24,000	
Concrete area	8,000	
Paved area (including roads	10,000	
Mixing area	-	
Grinding area	-	
Curing pad	-	
Storage pad	-	
Finished compost screening area	-	
Equipment storage area	-	
Roadways	-	
Retention pond	-	
Total non-enclosed improvements	**42,000**	
Total acres for non-enclosed improvements	**1.0**	
Equipment Requirements		
Bobcat	1	
10,000 gal liquid buffer tank	1	
Food waste receiving area	1	
Food waste hygienization system	1	
80,000 gal horizontal primary digestion vessel	1	
Screw press	1	
Presscake storage bunker	1	
350,000 gal vertical secondary digester	1	
Hardware, pumps, valves	1	
Instrumentation and controls	1	
Biogas handling system	1	
Biogas bypass flare	1	
Engine generator	1	

Operating Basis

Labor requirements (total all shifts)	**Number**	**Rate/w benefits ($/hr)**	**Overtime factor**	**Shifts**	**Hours/Shift**	**Days/Year**	
Manager	-	$ 50.00	1	1	8	365	
Supervisors/operator	1	$ 34.00	1	1	8	365	Need 2nd manager/operator for weekends/holidays
Equipment operators	-	$ 30.60	1	1	8	365	
Rolling stock operators	-	$ 30.60	1	1	8	365	
Mechanics (maintenance done off-site)	-	$ 47.18	1	1	8	260	
General laborers	-	$ 22.53	1	1	8	365	

5 Processing Technology — Wet AD (Anaerobic Digestion)

Other

Water consumption (1000 CF/year)	-	High percentage of food waste supplies moisture
Effluent requirement (1000 CF/year)	183	
Power requirement (kWh/year)	394,000	Security lights & Wet AD System
Fuel requirement (diesel gals/year)	4,000	Equipment
Operating Hours per Day	8	
Availability (%)	100%	Wet AD operation will be active 24/7
Net electricity produced (kWh/year)	967,104	
Electrical sales rate ($/kWh)	$ 0.05	

Economic Analysis

Capital Cost

Site improvements & buildings (as needed)	$ 4,998,000	With Wet AD Package	Total asphalt	10,000
Startup and acceptance testing (1 month of operations +)	$ 128,000		Prepare site	24,000
Subtotal	**$ 5,126,000**		Total concrete	8,000
Design (10%)	$ 513,000			
Construction management (4%)	$ 205,000			
Permitting (6%)	$ 308,000			
Contingency (15%)	$ 769,000			
Subtotal	**$ 6,921,000**			
Land	$ -			
Stationary equipment installed(w/spare parts)	$ -			
Rolling stock	$ 80,000			
Total Capital Costs	**$ 7,001,000**			

Annual Operations & Maintenance Cost

Labor	$ 99,000	
Wood chip purchase	$ -	Offset TTSD revenues
Facilities maintenance	$ 5,000	
Rolling stock & stationary equipment maintenance costs	$ 8,000	
Rolling stock replacement costs	$ 10,000	
Stationary equipment replacement costs	$ -	
Utilities	$ 59,000	Security lights & Wet AD System
Fuel	$ 16,000	
Effluent disposal	$ 14,000	
General & administration/legal,/accnt.	$ 5,000	
Insurance	$ 50,000	Estimate
Property taxes	$ -	County property
Subtotal	**$ 266,000**	
Contractor overhead (10%)	$ 27,000	
Contingency (15%)	$ 40,000	
Total O&M costs	**$ 333,000**	
Annualized Capital Cost (5.0%, 20 yrs, 5% fin cost)	$ 590,000	
Total Annual Cost	**$ 923,000**	

Potential Revenues

Potential Materials Market Revenues ($/year)	**$ -**	Conservative, give away compost
Potential Electricity Revenues ($/year)	**$ 48,000**	
Total potential revenues	**$ 48,000**	
Net Annual Cost	**$ 875,000**	

NET ANNUAL COST ($/year)	**$ 875,000**

6 Processing Technology — Autoclave

Design Basis

Input tons per year (tpy)	**2016**	
Food waste	3,000	
Wood chips	-	
Other organics	-	
Total initial operations (tpy)	**3,000**	For initial operations
Days per year operational	365	
Tons per day for initial operations - rounded (tpd)	**9**	For initial operations

Building enclosures (sf)		
Building	5,000	
Food waste storage		
Processing equipment		
Unload digestate		
Maintenance area		
Total building area (sf)	**5,000**	

Non-enclosed improvements (sf)		
Total site improvement area	24,000	
Concrete area	4,000	
Paved area (including roads	10,000	
Mixing area	-	
Grinding area	-	
Curing pad	-	
Storage pad	4,000	
Finished compost screening area	-	
Equipment storage area	-	
Roadways	-	
Retention pond	-	
Total non-enclosed improvements	**42,000**	
Total acres for non-enclosed improvements	**1.0**	

Equipment Requirements	
Bobcat	1
Feed Conveyor	1
Autoclave	1
Boiler and steam generator	1
Burner and heat exchanger for hot oil recirculation	1
Water eduction and circulation system	1
Receiving conveyor for processed materials	1
Screening system	1
Instrumentation and controls	1

Operating Basis

Labor requirements (total all shifts)	**Number**	**Rate/w benefits ($/hr)**	**Overtime factor**	**Shifts**	**Hours/Shift**	**Days/Year**	
Manager	-	$ 50.00	1	1	8	365	
Supervisors/operator	1	$ 34.00	1	1	8	365	Need 2nd manager/operator for weekends/holidays
Equipment operators	-	$ 30.60	1	1	8	365	
Rolling stock operators	-	$ 30.60	1	1	8	365	
Mechanics (maintenance done off-site)	-	$ 47.18	1	1	8	260	
General laborers	-	$ 22.53	1	1	8	365	

Other		
Water consumption (1000 CF/year)	-	High percentage of food waste supplies moisture
Effluent requirement (1000 CF/year)	80	
Power requirement (kWh/year)	37,000	Security lights & Dry AD System

6	Processing Technology		Autoclave			
	Natural gas requirements (1000 CF/year)		225			
	Fuel requirement (diesel gals/year)		4,000	Equipment		
	Operating Hours per Day		8			
	Availability (%)		100%	Autoclave operation will be active 8 hrs/day		
	Net electricity produced (kWh/year)		-			
	Electrical sales rate ($/kWh)	$	-			

Economic Analysis

Capital Cost

Site improvements & buildings (as needed)	$	3,744,000	With Autoclave Package	Total asphalt	10,000
Startup and acceptance testing (1 month of operations +)	$	122,000		Prepare site	24,000
Subtotal	**$**	**3,866,000**		Total concrete	4,000
Design (10%)	$	387,000			
Construction management (4%)	$	155,000			
Permitting (6%)	$	232,000			
Contingency (15%)	$	580,000			
Subtotal	**$**	**5,220,000**			
Land	$	-			
Stationary equipment installed(w/spare parts)	$	-			
Rolling stock	$	80,000			
Total Capital Costs	**$**	**5,300,000**			

Annual Operations & Maintenance Cost

Labor	$	99,000	
Wood chip purchase	$	-	Offset TTSD revenues
Facilities maintenance	$	5,000	
Rolling stock & stationary equipment maintenance costs	$	8,000	
Rolling stock replacement costs	$	10,000	
Stationary equipment replacement costs	$	-	
Utilities	$	6,000	Security lights & Autoclave System
Natural gas	$	5,000	
Fuel	$	16,000	
Effluent disposal	$	6,000	
General & administration/legal,/accnt.	$	5,000	
Insurance	$	50,000	Estimate
Property taxes	$	-	County property
Subtotal	**$**	**210,000**	
Contractor overhead (10%)	$	21,000	
Contingency (15%)	$	32,000	
Total O&M costs	**$**	**263,000**	
Annualized Capital Cost (5.0%, 20 yrs, 5% fin cost)	$	447,000	
Total Annual Cost	**$**	**710,000**	

Potential Revenues

Potential Materials Market Revenues ($/year)	**$**	**-**	Conservative, give away compost
Potential Electricity Revenues ($/year)	**$**	**-**	
Total potential revenues	**$**	**-**	
Net Annual Cost	**$**	**710,000**	

NET ANNUAL COST ($/year)	**$**	**710,000**

7 Haul Method — To Full Circle

Design Basis

Collection tons per year (tpy)	**2016**
Food waste	3,000
Other	-
Total (tpy)	**3,000**

Economic Analysis

Haul Cost

RT to Carson City plus unload (hrs)		4
Payload of transfer trailer (tons)		20
Transfer trailer cost ($/hour)	$	120
Haul cost ($/ton)	**$**	**24.00**
Annual haul cost ($)	**$**	**72,000**

Tipping Fee

Cost per ton	**$**	**65.00**
Annual tip fee ($)	**$**	**195,000**
Cost per 1X monthly pick-up/per month	**$**	**57.85**
Annual Cost	**$**	**267,000**

8 Haul Method — To Donovan

Design Basis

Collection tons per year (tpy)	**2016**
Food waste	3,000
Other	-
Total (tpy)	**3,000**

Economic Analysis

Haul Cost

RT to Sparks plus unload (hrs)		3
Payload of transfer trailer (tons)		20
Transfer trailer cost ($/hour)	$	120
Haul cost ($/ton)	**$**	**18.00**
Annual haul cost ($)	**$**	**54,000**

Tipping Fee

Cost per ton	**$**	**45.00**
Annual tip fee ($)	**$**	**135,000**
Cost per 1X monthly pick-up/per month	**$**	**40.95**
Annual Cost	**$**	**189,000**

9 Scenario SAFE

Design Basis

Collection tons per year (tpy)	**2016**
Food waste	3,000
Other	-
Total (tpy)	**3,000**

Economic Analysis

Facility Capital Cost

Site work, water, electrical and gas	$	350,000	
SAFE equipment (Hub & 1 Spoke)	$	5,500,000	All inclusive according to SAFE
Total Capital Costs	**$**	**5,850,000**	

Annual Operations & Maintenance Cost

Haul Cost

RT to Sparks plus unload (hrs)		3	
Payload of transfer trailer (tons)		20	
Transfer trailer cost ($/hour)	$	120	
Haul cost ($/ton)	**$**	**18.00**	
Annual haul cost ($)	**$**	**54,000**	

Facility Cost

Total Hub & 1 Spoke O&M costs	$	225,000	$75/ton
Annualized Capital Cost (5.0%, 20 yrs, 5% fin cost)	$	493,000	
Total Annual Cost	**$**	**772,000**	

Potential Revenues

Potential Materials Market Revenues ($/year)	**$**	**56,000**	1/4 of input tons @$75/ton
Total potential revenues	**$**	**56,000**	
Net Annual Cost	**$**	**716,000**	

NET ANNUAL COST ($/year)	**$**	**716,000**

SELF-DEALING TRANSACTION DISCLOSURE FORM

In order to conduct business with the County of Fresno (hereinafter referred to as "County"), members of a corporation's board of directors of the Consultant, must disclose any self-dealing transactions that they are a party to while providing goods, performing services, or both for the County. A self-dealing transaction is defined below:

"A self-dealing transaction means a transaction to which the corporation is a party and in which one or more of its directors has a material financial interest"

The definition above will be utilized for purposes of completing this disclosure form.

INSTRUCTIONS

(1) Enter board member's name, job title (if applicable), and date this disclosure is being made.

(2) Enter the board member's company/agency name and address.

(3) Describe in detail the nature of the self-dealing transaction that is being disclosed to the County. At a minimum, include a description of the following:

   a. The name of the agency/company with which the corporation has the transaction; and

   b. The nature of the material financial interest in the Corporation's transaction that the board member has.

(4) Describe in detail why the self-dealing transaction is appropriate based on applicable provisions of the Corporations Code.

(5) Form must be signed by the board member that is involved in the self-dealing transaction described in Sections (3) and (4).

(1) Company Board Member Information:			
Name:		**Date:**	
Job Title:			
(2) Company/Agency Name and Address:			
(3) Disclosure (Please describe the nature of the self-dealing transaction you are a party to):			
(4) Explain why this self-dealing transaction is consistent with the requirements of Corporations Code 5233 (a):			
(5) Authorized Signature			
Signature:		Date:	