

Commercial TA Profile

For motivated businesses, intermittent recycling and organics notifications – via mailers, website content, and other public marketing channels – can be enough to support establishing a sustainable recycling and organics program. However, many businesses benefit from tailored technical assistance to right-size their collection services, establish internal collection infrastructure that maximizes participation, and train their staff to ensure program participation on an ongoing basis. This profile outlines the key features of an effective site-visit based commercial technical assistance methodology, and estimates technical assistance labor hour inputs and results.

DESCRIPTION OF RECOMMENDED TECHNICAL ASSISTANCE SERVICES

Who: Highly trained zero waste specialist who is aware of local resources, is fluent in community-based social marketing techniques, and has experience in performing waste audits. This specialist can be employed by the hauler, the city, or a third party contractor.

When: Typically, the most effective outreach plans include an initial broad program marketing effort through public education campaigns that introduce and launch services to customers. Recology has already provided this service in Menlo Park. Then, highly targeted, customer focused outreach and education via onsite technical assistance ramps up diversion and participation at targeted businesses. After this highly targeted outreach, light follow-up touches to ensure program maintenance are essential to sustaining program performance.

Where: As much assistance as possible should be site based to tailor recommendations to each business' unique waste generation profile. Recommendations should be driven by data collected during the site visit.

What: An onsite technical assistance site visit is ideal to setting the groundwork for and sustaining waste reduction, recycling, and composting programs. This section provides an overview of best practices before, during, and after commercial technical assistance.

Before

Selecting the right businesses for technical assistance and setting the groundwork for success begins long before a technical assistance representative is onsite.

- o Strategically select and target businesses for technical assistance site visits. Targeting techniques can vary based on outreach program goals, but may include prioritizing businesses based on amount of material generated onsite annually, lack of recycling and/or composting collection services onsite, feedback from Recology collection truck drivers about contamination in the recycling/organics stream (or recycling/organics in the garbage), and level of business interest in assistance.
- o Once businesses have been selected for assistance, perform initial phone correspondence with businesses to inform them of site visit services available to them, discuss the benefits of receiving assistance, and schedule the site visit. Phone correspondence and site visit should be with a decision maker at the business.
- o If technical assistance staff make three unsuccessful contact attempts by phone, the staff person may consider a drop-by visit for business types that do not rely on phone or email communication and are more accessible in-person (for example, small businesses who are in-and-out throughout the day and may not have a staff person dedicated to answering the phone or e-mails). Otherwise, after three unsuccessful

contact attempts by phone, the technical assistance staff may consider the business non-responsive, and remove them from the list of businesses to receive technical assistance.

- o When scheduling site visits, ensure they are the day before garbage is collected, and, if possible, the day before or close to the day before recycling and composting collection.

During

The primary goal of a site visit is to collect information to formulate recommendations about establishing or improving the business' recycling and/or organics collection program. This section provides a high level overview of site visit best practices.

- o Review and confirm the service level, contact information, and other details that the city/Recology/property manager provided prior to the visit. Ask the property manager/decision maker at the business for an overview of recycling and other material management systems currently in place at the business.
- o Visit each collection area or enclosure onsite where Recology-serviced containers are located. Note container fullness, composition of material in containers, location relative to other collection streams (is garbage co-located with recycling and composting?), labeling with signage, and space constraints for adding more or differently sized collection containers. Take photos to document each of the above. Take samples of material that may require additional research to determine recyclability or alternative, recyclable replacement options.
- o Visit at least one example of every type of area where materials are generated in the business (such as office, storage, warehouse, break room, kitchen, cafeteria, and restroom). Note container placement and fullness, composition of material in containers, labeling and signage, and space constraints for adding additional collection containers. Take photos to document each of the above.
- o Ask questions to determine the system for moving discarded materials from generation points to collection containers, noting custodial vs. employee responsibilities, and type of container liner used, if any.
- o Ask questions to understand purchasing policies, assess waste reduction opportunities, and determine where non-recyclable or non-compostable materials can be avoided.
- o Document notes in one easy-to-access place, preferably in an electronic form that can be automatically updated to a larger database for ease of tracking and progress reporting.

After

After performing a site visit, it is important to provide the business with a brief written summary of existing conditions onsite and recommendations for improvement. Then, support the decision maker at the business to act on recommendations through coordination with Recology and follow-up correspondence with the business' decision maker that includes carefully crafted persuasive prompts. Other best practices for follow-up communications are detailed below.

- o Decide which implementation tools to provide the business. These may include in-person training, indoor container labels, signs, vendor information, funding opportunity information, new employee recycling and composting program notification templates, and container fullness/monitoring forms as appropriate to the specific business.
- o Follow up with every business one month after new service implementation to inquire how the program is going. This follow-up conversation will be structured with strategic prompts to spur the decision maker into action and inspire a critical conversation about program progress, challenges, and successes.

The technical assistance representative should schedule an in-person recycling and composting training with every business that is interested in receiving one. This training may take the form of a train-the-trainer session with the decision maker at the business, a training with key employees, or an all-employee meeting. Specific training structures will depend on business type, employee motivation, and space available at the site. However, common training themes should include:

- o Use examples of recyclable, compostable, and garbage materials from the business' own material stream as training props.
- o Provide prompts specific to the business' recycling and composting program, and facilitate discussion around those prompts, to ensure employees understand the program.
- o Provide employees and/or decision makers with guidance for on-going monitoring of recycling/organics programs and tips/tools for communicating with their employees and/or tenants bi-annually.

LABOR HOURS PER GENERATOR (ANNUALLY)

Based on data from a Bay Area-based technical assistance program that uses a similar methodology to that described above, the number of labor hours required to provide businesses with this level of technical assistance is **between 4.5 to 6 hours per generator**.

DIVERSION PER GENERATOR (ANNUALLY)

Based on data from a Bay Area-based technical assistance program that uses a similar methodology to that described above, the amount of new diversion that this technical assistance protocol can generate is **approximately 0.86 tons per year per generator assisted**. Note that tons available for diversion will vary widely based on business type and size.

Faith-Based Communities TA Profile

During zero waste planning workshops, Menlo Park employees and citizens identified faith-based communities as generators of interest for waste reduction and recycling outreach and technical assistance.

Faith-based institutions present unique opportunities to connect to people who operate as part of one tight-knit group. However, the recommended methodology for performing a site visit at a church, synagogue, mosque, or other faith-based community is very similar to the technical assistance methodology outlined in the commercial profile, with a few additions related to leveraging the power of community at these generators. Please reference the Commercial profile for more information about the general recommended approach to technical assistance, which is also applicable to faith-based communities. Additional approaches specific to faith-based communities are discussed below.

- o During site visits, be sensitive and responsive to religious norms in the spaces that you visit.
- o It is important to consider faith-based communities as event spaces, and assess the frequency and types of events hosted at the site. If there are regular events at the site, consider performing a site visit directly after the event is complete to get a good sense of regular event waste generation and composition.
- o Leverage the church community to utilize community-based social marketing strategies – like social diffusion, public and durable commitments, and social norming – to promote behavior change related to waste reduction, recycling, and composting.

- o Children are often an integral part of faith-based communities. Design trainings to be interactive for children and adults, if appropriate, or design a separate training for the children in the community. Children are often the catalysts for behavior change in communities and families, and can teach the adults in their lives with infectious enthusiasm.
- o If there are residential spaces onsite, like a rectory, use residentially focused outreach strategies for individuals living there.

LABOR HOURS PER GENERATOR (ANNUALLY)

Based on data from a Bay Area-based technical assistance program that uses a similar methodology to that described above to assist faith-based communities and similar event spaces, the number of labor hours required to provide faith-based communities with this level of technical assistance is **between 5 to 7 hours per generator**.

DIVERSION PER GENERATOR (ANNUALLY)

Based on data from a Bay Area-based technical assistance program that uses a similar methodology to that described above to assist faith-based communities and similar event spaces, the amount of new diversion that this technical assistance protocol can generate is **approximately 3.2 tons per year per generator assisted**. Note that this tonnage is much higher than the commercial average because faith-based communities often generate more food than the average commercial business, so the weight of material that they divert is often more for an equivalent volume of material. Note that tons available for diversion will vary widely based on institution size and use profile.

Schools TA Profile

During zero waste planning workshops, Menlo Park employees and citizens identified schools as generators of interest for waste reduction and recycling outreach and technical assistance.

Schools can provide an ideal setting for developing and managing innovative and successful waste reduction and diversion programs. Principals, administrators, custodial staff, and teachers act as both material generators and managers in schools, and are intimately involved in the day-to-day operations and cultures that drive consumption and disposal at school. When recruited and supported as champions and partners, these individuals are uniquely positioned to make the incremental operational and cultural changes that transform the way their school thinks about waste.

Students—from kindergarteners to graduating seniors—are the enthusiastic and creative core of a school. They can serve not only as energetic program champions, but also as vital sounding boards and sources of new ideas. Encouraging students to notice—and take ownership of—the materials they use and discard at school can help to foster a powerful ethos of stewardship and responsibility that they will take home to their families and broader community.

This profile outlines the key features of an effective outreach and technical assistance methodology for schools, and estimates labor hour inputs and results.

DESCRIPTION OF RECOMMENDED TECHNICAL ASSISTANCE SERVICES AT SCHOOLS

Who: Highly trained zero waste specialist who is aware of local resources, is fluent in community-based social marketing techniques, and has experience in performing waste audits and working in an educational setting. This specialist can be employed by the hauler, the city, or a third party contractor.

When: Schools often need deeper technical assistance than other business types. The characteristics that make schools an ideal setting for growing sustainable waste reduction, recycling, and composting programs also require a sustained, train-the-trainer based assistance approach to ensure a coordinated, successful program. After in-person site visits with administrators, training sessions with each key groups in the school – including administrators, custodians, teachers, students, and parents – are essential for program success.

Where: As much assistance as possible should occur onsite at the school, training administrators, faculty, staff, and students to be champions of their own program.

What: This section provides an overview of best practices before, during, and after technical assistance in a school setting. Technical assistance site visits at a school mirror many of the characteristics of site visits at commercial sites and faith-based communities, with some notable exceptions. This section provides site visit guidelines specific to the school setting; please reference the commercial profile for more general guidelines about performing a technical assistance site visit.

Before

The process for selecting the right schools for technical assistance mirrors the process for selecting the right businesses for technical assistance. Reference the commercial profile for more information about marketing technical assistance services.

During

The primary goal of a site visit is to collect information to formulate recommendations about establishing or improving the school's recycling and/or organics collection program. In schools, site visits should have a special focus on engaging individuals who are likely to have historical perspectives about program history. Again, the site visit process at schools mirrors that at businesses, with some additions:

- o Start each school site visit with meeting with the principal and other key administrators to introduce the goals of technical assistance and gain a better understanding of school culture, priorities, policies, current programs, and student and neighborhood demographics that define the school's needs, interests, and level of commitment.
- o During the meeting, establish a game plan for the school site, identify critical service needs, and define roles and responsibilities for key players at the school.
- o Meet with, interview, and engage custodial staff to understand how current programs function on the ground day-to-day, program history, custodial service contract details, and loading dock space and requirements.
- o After completing the site assessment and analysis, work with key administrative and custodial staff to develop a recommendations report that documents the school's unique waste profile and operational needs; defines the internal and external resources and roles required for success; and schedules outreach,

education, training, and additional technical assistance necessary to support custodial staff, teachers, students, and vendors responsible for implementing the program at the school site.

Reference the commercial profile for more general guidelines about performing a technical assistance site visit.

After

Again, many of the post-site visit technical assistance that schools need to start and sustain successful programs are the same as for businesses. However, a large differentiator is how to communicate with all of the different generator groups within a school, whether that is via a train-the-trainer session with administrators, an assembly with students, or an all-employee meeting. It is important to clearly communicate with teachers, student groups, student body, and parents to set expectations about their roles in the program, and to generate awareness, understanding, and commitment around waste reduction and waste management programs.

These different audiences have different priorities and goals related to waste management and recycling, so it is important to tailor communications and approaches to meet specific training objectives for each group. Specific training structures will depend on the unique results of the site visit at each school. However, common training themes for each group within a school are outlined in the table below.

Table 1. Training Recommendations for School Generator Groups

School Generators	Training/Outreach Objective	Training Type
School Principals, Administrators	– Understand school program needs and priorities – Serve as program advocate – Demonstrate to stakeholders how program values are in line with school needs and priorities – Keep apprised of program activities and results – Provide proactive support for school events and celebrations – Facilitate cross-district collaboration and idea sharing, as appropriate – Sets the program tone/directive – model desired program participation through social diffusion and norming messaging	– Train-the-trainer working/planning session
Custodial Staff	– Understand infrastructure, operations, and past programs – Gain buy-in and enlist support – Prioritize operational efficiencies – Foster sense of ownership and pride	– Train-the-trainer working/planning session
Teachers	– Identify opportunities for incorporating recycling and resources into grade-appropriate classroom activities and curriculum – Promote creative generation and sharing of ideas and lesson plans – Facilitate opportunities for cross-district, county, and statewide collaboration – Assist with classroom projects and activities, as needed	– Train-the-trainer working/planning session – Give lessons to reinforce in classroom

School Generators	Training/Outreach Objective	Training Type
Student Groups	– Generate enthusiasm and pride – Promote grade-level-appropriate participation and ownership of program(s) – Support cross-district and citywide collaborations and competitions – Encourage initiatives that bring different schools and grade levels together (e.g. high schoolers performing recycling skits for elementary schoolers, etc.) – Model desired program participation through social diffusion – Empower student leaders to become program champions	– Presentation and brainstorming sessions during student group meeting times – Lunch monitor training sessions
Students (at large)	– Generate enthusiasm and pride – Support active participation in waste reduction, recycling, and organics programs	– Assembly
Parents	– Understand student needs and priorities – Demonstrate to students how the value and benefits of waste reduction/management are in line with student needs and priorities; gain buy-in – Provide opportunities for involvement in school activities and events	– Mailers – Incorporate messaging into parent/teacher time on campus, like parent/teacher conferences and back-to-school nights

LABOR HOURS PER GENERATOR (ANNUALLY)

Based on data from a Bay Area-based technical assistance program that uses a similar methodology to that described above, the number of labor hours required to provide schools with this level of technical assistance is **between 8 to 12 hours per school**. Note that this number can vary widely depending on training needs at each school.

DIVERSION PER GENERATOR (ANNUALLY)

Based on data from a Bay Area-based schools technical assistance program that uses a similar methodology to that described above, the amount of new diversion that this technical assistance protocol can generate is **approximately 9.38 tons per year per school assisted**. Note that this tonnage is much higher than the commercial average because schools often generate more food than the average commercial business, so the weight of material that they divert is often more for an equivalent volume of material. Also note that tons available for diversion will vary widely based on school type and student population.

Self-Haul Customer TA Profile

Engaging, educating, and encouraging self-haul customers to divert recyclables, including construction and demolition debris, can be a challenge. It is possible to reach self-haul customers with information before they arrive at the transfer station, via broad-based outreach about the recycling options at the transfer station. However, the best way to ensure that messaging is reaching self-haul customers is engaging with them at the transfer station

when they arrive to drop off their materials. This profile outlines the key features of effectively engaging self-haul customers to divert construction and demolition debris and other recyclables.

Shoreway Environmental Center scale house staff are currently required to inspect each incoming self-haul load, and direct the vehicle for disposal and recycling depending on their load inspection findings. Tipping floor staff also help direct vehicles where to unload, and the facility has dedicated sorters in the public tipping area that sort recoverable materials from the incoming loads of self-hauled material. These dedicated tipping area staff people mostly focus on recovering metals and electronics from self-hauled loads.

DESCRIPTION OF RECOMMENDED TECHNICAL ASSISTANCE SERVICES

Who: Scalehouse staff and floor-based transfer station staff are the only two groups who will likely engage with self-haul customers in person.

When and where: Provide online resources about what materials are recyclable at the transfer station, for motivated customers to reference before they arrive. Then, leverage scalehouse and other transfer station staff interactions with self-haul customers to encourage recycling during the customer's current visit and during future visits.

What: This section provides an overview of best practices before and during transfer station staff interaction with self-haul customers.

Before

For self-haul customers who are already committed to recycling, providing information about what recycling services are available at the transfer station and what they can expect when they arrive at the transfer station is important. According to a survey of almost 1,000 self-haul customers conducted in King County in 2016, only about 15% of self-haul customers look for information about what materials are recyclable at the transfer station before bringing their materials there. Of those customers, almost all looked online for this information.¹

Providing simple online information about what materials the transfer station accepts for recycling, tipping fees for those materials, and any guidelines about how to prepare those materials for recycling (for example, which materials need to be separated for recycling, and which can be kept commingled) will give people who are already motivated to recycle the information that they need to do so.

During

When self-haul customers arrive at the transfer station, maximize opportunities for contact between self-haul customers and employees at the transfer station. This section discusses best practices for engaging customers while they are onsite dropping off materials at the transfer station.

- o Simple, large, and multi-lingual signage before the scale house should urge self-haul customers to drop off recyclables before they cross the scale, if appropriate per the facility's set-up.
- o Scalehouse staff should prompt every self-haul customer with questions about whether their load contains recyclable materials, and with information about how to recycle those materials. According to Shoreway Environmental Center protocol, scalehouse staff will also perform a load inspection for every self-haul

¹ <https://your.kingcounty.gov/solidwaste/about/documents/customer-survey-2016.pdf>, p. 18-19.

customer. On average, 95 percent of self-haul loads include materials that could be recycled. However, only 8 percent of self-haul customers proactively ask questions about recycling while they are at the scalehouse, according to the 2016 King County Transfer Station Customer Survey.² So, scalehouse staff must proactively ask about recyclables in the self-haul loads and perform load inspections to prompt recycling behaviors in those customers.

- o Scalehouse staff recycling prompts with customers could take a variety of forms, but should include both information and motivating messages.
 - Scalehouse staff should ask customers whether they have materials for recycling, and perform a load inspection to confirm. If the customer does, the scalehouse staff person should provide instructions about how and where to recycle those materials once the customer is inside the facility. Ideally, transfer station staff on the floor inside the facility, and instructional signage, will reinforce these instructions once the customer enters the facility.
 - If the customer reports that they do not have materials for recycling, and the scalehouse staff person can neither confirm nor deny this claim with a load inspection, scalehouse staff should be ready to provide messaging about the benefits of recycling. If possible, messaging should include statistics about the percent of the average self-haul load that is recyclable, the money that the customer could save by recycling that material instead of dumping it as garbage, and the environmental impacts of recycling those materials. Scalehouse receipts could even be printed to automatically include this information for loads that will be dumped as garbage. Alternately, scalehouse staff could be equipped with a brochure offering more information about recycling and the facility, to inform the customer's next visit. Any messaging encouraging recycling behavior should emphasize that there are staff on the tipping floor who assist customers in sorting their loads. These staff currently mostly focus on recovering metals and electronics from self-haul loads, but could potentially expand their function to serve a broader role, including picking more materials and engaging more with self-haul customers.
- o Tipping floor staff, including tipping floor supervisors and tipping floor sorters, should engage with each self-haul customer at least once during the customer's visit to ensure that they know where to dump their materials, are dumping them correctly, and that they don't need any additional assistance.
 - Tipping floor supervisors/non-sorting staff should offer assistance to direct self-haul customers to the correct location to dump their materials. A checkpoint at the entrance to the tipping floor, where staff physically points the customer to the correct location to start dumping their materials, can accomplish this goal.
 - On-floor sorting staff should serve two purposes: to double check that customers are not disposing of recyclables, and to assist customers in sorting their materials for recycling. In the 2016 King County survey, of self-haul customers who did not separate their loads for recycling (and instead disposed their entire loads as garbage), 36 percent noted that they chose not to recycle because it "takes too long to separate/prepare materials" for recycling. The second most frequent response to this question was that recycling at the transfer station is inconvenient (28 percent of respondents answered in this way). On-floor sorting staff do not currently serve this larger engagement role, but expanding their role to encompass this type of outreach can address these two barriers to recycling by providing assistance to customers who are attempting to recycle.³

² <https://your.kingcounty.gov/solidwaste/about/documents/customer-survey-2016.pdf>, p. 32, 35.

³ <https://your.kingcounty.gov/solidwaste/about/documents/customer-survey-2016.pdf>, p. 35.

Construction and Demolition Contractor TA Profile

Construction and demolition contractors are accustomed to working independently at their job sites. There are a variety of factors that impact contractor efficiency, effectiveness, and profitability, and contractors are accustomed to handling the materials that they generate with these factors in mind. Therefore, contractors do not typically benefit from onsite technical assistance, since their onsite materials management processes are too involved for someone not intimately involved in their work to make recommendations around. However, they do benefit from clear information and guidelines about how to divert recyclable materials, and the penalties that they could suffer if they do not.

This profile outlines the key features of effectively engaging contractors to divert construction and demolition debris and other recyclables.

The recommendations in this section are based on a 2006 study that interviewed and conducted focus groups with C&D industry stakeholders, including generators (construction and demolition contractors), haulers (City contracted and independent haulers), and processors. The goal of the interviews and focus groups was to review potential policy options for expanding C&D recycling. A list of policy options, designed to increase the diversion of C&D waste, was used as an interview guide to elicit reactions to proposed policies and outreach methodologies. Note that these opinions may vary based on local market conditions. Conducting interviews and focus groups with construction and demolition contractors is advisable to test receptivity to any proposed policy options or technical assistance campaigns.

DESCRIPTION OF RECOMMENDED TECHNICAL ASSISTANCE SERVICES

Who: Municipal staff or consultants who are familiar with CALGreen and other similar regulations about diverting recyclable materials from construction and demolition projects.

When and where: Online guides and staff people should be available by phone to guide contractors to comply with local, regional, and statewide construction and demolition diversion requirements.

What: This section provides an overview of best practices for providing C&D contractors with pertinent information about how and why to recycle materials from their jobsites.

Technical assistance for construction & demolition contractors would primarily consist of remote support (via phone assistance and online reference materials) throughout the span of their project. Unlike with other generators, there are not distinct "before," "during," and "after" phases for technical assistance, so this profile discusses technical assistance for C&D contractors in general, rather than in phases.

The King County study referenced for this section found that contractors are enthusiastic about better access to information and benchmarking data about C&D debris recycling, but do not want city staff involved in job site operations in a technical assistance capacity. Generators universally favored being provided with better information about vendors/markets for construction and demolition debris, and benchmarking data for various types of projects, but did not want city staff on-site or felt that they didn't need help with managing waste. Contractors surveyed for this King County study also expressed a desire to verify where materials are going, publicize local success stories, and have access to a comprehensive and frequently updated recycling guide for difficult to market and hazardous C&D materials. Overall, generators requested help with better resources to understand where to send recyclable materials, noting, "...to improve the process, you need to improve the tools."

For the King County study, when asked about requiring a diversion plan, most generators noted that they would be able to “live with” the requirement. Only one generator noted that they would oppose the policy. In general, generators agreed that most contractors are already preparing plans for their own purposes, and a requirement to prepare a plan would not be a large departure from their current operations. Most generators stated that any such requirement would require “teeth” and proper enforcement to be successful.

Generators interviewed for the King County study noted that they would support a ban on select C&D materials, and unanimously emphasized that recycling options for banned materials – including effective, local commingled processing – would need to be in place for a ban to be successfully implemented. The contractors noted that the most logical targets for a ban are materials for which adequate processing and recovery infrastructure exist locally.