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Introduction

The City of San Francisco produces approximately 6 million pounds of garbage every day. While most of San Francisco's 250 public and private schools had implemented successful paper and beverage container recycling programs, few had addressed organic material, specifically food scraps. A 1996 waste characterization study showed that approximately 38% of a typical school's waste was organic material.

With the support of this grant from the California Integrated Waste Management Board, San Francisco Recycling Program (SFRP) implemented food scrap collection at five sites, and helped schools significantly reduce their Altamont Landfill-bound waste. With the help of a SFRP subcontractor, each of the schools designed a food scrap program that encompassed education, outreach and organics collection. The programs were highly successful; all of the five schools SFRP worked with will continue collection in the fall.

The project grant was managed by Natasha Stillman, SFRP School Education Coordinator. Technical assistance was provided by Krista Danielson, SWMP Technical Assistant for Schools subcontractor.

Methodology

Organics collection was designed to be replicable in schools throughout San Francisco. A partnership between the waste hauler, SFRP and the school was instrumental in the program's success. Additionally, seven key elements characterized SFRP's approach:

1. School Recruitment

Schools were selected jointly between SFRP and Sunset Scavenger. Schools were chosen based upon prior experience with SFRP and Sunset Scavenger, and a demonstrated commitment to waste reduction. During an initial planning meeting in October, 2000, SFRP and Sunset Scavenger identified a targeted district of San Francisco. However, teachers who expressed interest during the school year joined the program, regardless of location within the city. The primary contact at each school was a teacher.

2. Initial planning meeting

Once potential sites were identified, the subcontractor called the contact teacher. An initial meeting was held with the contract teacher, the principal, a representative from Sunset Scavenger, the subcontractor and often the custodian to assess interest. This group outlined an action plan, taking into account special needs. The subcontractor and teacher worked closely with a group of students; these students would be instrumental in teaching the rest of the students about the program.

3. Waste Audit

Every school conducted a waste audit to determine what was being thrown away at lunch. Materials were sorted, visually assessed for volume, then weighed. Four of the schools did a follow-up waste audit to survey the program's success. Please see Attachment A for detailed waste audits.

4. Outreach and Education

Students developed and gave presentations to their schools in the form of in-class presentations, general assemblies, posters, newspaper articles, a kick-off event and word-of-mouth. Students also served as monitors during lunchtime to facilitate the separation process.

5. Fine-tuning

Every school faced challenges. SFRP anticipated challenges and worked closely with all parties to refine the program to reflect each school's unique needs. SFRP also assisted schools in improving existing recycling efforts.

6. Follow up

A second waste audit was conducted with the same group of students and future waste reduction goals were planned. Sunset Scavenger and SFRP also made arrangements for each school that participated in the food scrap collections program to receive finished compost for their garden or landscaping needs. In addition, all schools with whom we worked plan on continuing the program. While some need more assistance than others, all schools will receive a check-in visit from the subcontractor in the Fall.

7. Awards Ceremony

The five schools with whom we worked received recognition at the SFRP annual school recycling program awards ceremony. Each school received commendation for the amount of organic material diverted, the way their program was set up, and any other factors that contributed to the program's success.

Areas for Further Discussion

If other jurisdictions are interested in replicating the organics collection program, there are a few factors to consider.

Relationship with waste hauler. SFRP has a long history of working well with San Francisco's waste hauler. A 1932 ordinance limits the number of waste collectors to two,

and over the years, a positive working relationship has developed. The waste hauler and city developed a collections program that accepts all food scraps and soiled paper and began collection in certain districts in 2000. Food scrap collection in schools was a natural growth out of this partnership. Without hauler support, food scrap collection in schools would be much more challenging.

School District Support. SFRP encountered some resistance from the San Francisco Unified School District (SFUSD). It had been hoped that SFUSD would play a greater role in the partnership, however SFUSD does not have a recycling coordinator. District support would make for a richer, more enhanced programs, and would encourage more schools to participate. For example, SFUSD could launch a district-wide waste reduction plan which might include food scrap collection, recycling and other organics collection. Also, SFUSD could host a meeting with all cafeteria staff or all principals to let them know about the program, and to encourage their participation. Additionally, SFUSD could mandate recycling as part of the custodial staff's job duties.

Time. SFRP found that it took about a month to set up a food scrap collection program at each elementary school, and the high school took about 6 months to fully launch. This included the initial meeting, planning meeting, education and outreach, assembly kickoff, monitoring and refinement. SFRP worked extremely closely with each school on each step of the way. As a result, all schools are continuing their programs, and they are sustainable.

School selection. Additionally, not every school will be ready to participate in a food scrap collections program. Some schools that were approached were ready to take on the additional challenge of collecting organic materials, while others were strengthening their paper recycling programs and still others were ready to approach bottle and can collection. SFRP anticipates that several of the schools that were contacted during this school year will be ready to join the program in future years.

Long-term school contact. Identifying a lead contact at each school is necessary for a successful program. While some schools had a designated recycling coordinator, the majority of recycling programs fell on the shoulders of an interested teacher. During the process, enthusiasm for the food scrap program carried over to other teachers and staff. However, two of the teachers with whom we worked left their school at the end of this year. Fortunately, other teachers have offered to take the lead, and the program will continue at all the schools next year. SFRP hopes that the program will become part of the job description at these sites.

Data

please see Attachment A for waste audit record sheets

					St Ignatius
Total pounds of garbage – 1st audit	n/a	75.5	55	61	66.5
Visual volume of organics – 1st audit	n/a	66%	50%	40%	55%
Total pounds of garbage – 2nd audit	23	17	30	23	n/a
Visual volume of organics – 2nd audit	4%	40%	6%	6%	n/a
Amount of organics diverted daily	59 lbs	18 lbs	30 lbs	72 lbs	1 3-yard dumpster
Estimated weekly total	400 lbs	200 lbs	500 lbs	600 lbs	18 yards

Weekly totals determined by SFRP and Sunset Scavenger. Daily diversion rates measured and weighed by SFRP and schools.

Lawton K-8 Alternative School

1570 – 31st Avenue San Francisco, CA 94122

Project Coordinator: Maurice Harper, Service Learning teacher
public elementary and middle school, 650 students
two 64-gallon containers, once a week

Lawton school has done a remarkable job in setting up and institutionalizing their food scrap collection program. As part of a 9-week leadership elective taught by Service Learning teacher Maurice Harper, middle school students become immersed in waste reduction. After learning about recycling, composting and natural resources, they monitor the collection bins in the cafeteria. Custodian Jaime Torres empties the compostables into the outside bins.

According to Torres, Lawton has reduced its cafeteria waste from eight barrels to four barrels a day. A waste audit showed that only 4% of their cafeteria waste were food scraps, and that 59 pounds of food scraps were diverted.

Methodology

April 2000 SFRP, Sunset Scavenger and Lawton met to discuss feasibility of food scrap collection. Lawton agreed to become the first school to pilot food scrap collection. A green bin was delivered, and under Harper's leadership, collection began.

October 2000 The subcontractor met with Mr. Harper to see how the program was going. A second organics toter was requested. Collection is now two 64-gallon carts a week. A new group of students is trained every nine weeks.

April 2001 Harper, three students and the subcontractor did a waste audit to measure how much waste was being diverted and to see what areas could be improved.

May 2001 Lawton honored in the San Francisco School Recycling Program Awards ceremony for outstanding commitment to organics diversion.

Successes and Impacts

Lawton was the first school to begin food scrap collection. Because students learn about natural resources and take an active role as part of their class, they are invested in the program. The program is supported by its administration, custodian, teachers and students, creating an ideal environment for a comprehensive waste reduction plan to flourish. Lawton plans to continue the program.

Challenges

Monitoring the bins. It became clear that students needed supervision to reduce the amount of contamination. As part of his leadership elective, Mr. Harper immerses middle school students in waste reduction concepts, then provided the opportunity to act on that knowledge by serving as monitors. This system follows a service-learning model and also provides monitors at the two bins.

Katherine Delmar Burke School

7070 California Street
San Francisco, CA 94121

Project Coordinator: Chelsie Wheeler, Lower School Science teacher
Private elementary and middle school, 350 students
two 64 gallon organics containers, once a week

Summary

Katherine Delmar Burke School (KDBS) is a private school for girls in the Richmond District. Lower School Science teacher Chelsie Wheeler spearheaded the program and emphasized participation of the Lower School, custodian, cafeteria aides and parent volunteers. She also improved expanded existing recycling programs to include batteries, beverage containers and recycling at special events.

Before separating food scraps, KDBS threw away 75.5 pounds of cafeteria trash a day. A second waste audit showed that the Lower School had reduced its garbage to 17 pounds, and was diverting 18 pounds of food scraps and other organics a day. Beverage container recycling bins and liquid dump buckets were also set up in the lunchroom. Moreover, the Lower School and their parents became more aware of composting, recycling and waste reduction.

Timeline

October 2000	Initial meeting with Ms. Wheeler to gauge interest Kindergarten worm bin started
November 2000	1 st waste audit with the 3 rd grade Planning meeting for food scrap collection for Lower School
December 2000	Food scrap collection begins in cafeteria by Lower School students. Parent volunteers and cafeteria staff assist students
February 2001	Waste Reduction Assembly at KDBS
April 2001	2 nd waste audit with the 3 rd grade. Meeting with custodian and kitchen staff to discuss the program from their perspective and recommendations for improvement
May 2001	Meeting with Ms. Wheeler to discuss successes and challenges of the program, planning for next year. KDBS honored in awards ceremony

Successes & Impacts

KDBS took a holistic look at the school's environmental impacts and has taken steps to reduce its waste. In addition to the food scrap collection program, Ms. Wheeler set up

school-wide paper, beverage container and battery recycling, and plans to launch printer toner cartridge recycling in the fall.

Food scrap collection has become part of the Lower School lunch procedure, and the school plans to include the Upper School next fall. The cafeteria waste disposal area has been transformed from a one-stop garbage bin to a comprehensive source separation station. With the help of parent volunteers and cafeteria staff, students separate their food scraps and soiled paper, beverage containers, liquids, and garbage.

A main success is an increased awareness of recycling and composting. The third grade received extensive recycling, composting and natural resources training, and the school community participated in the SFRP "Trash Bridges" Assembly. Parent volunteers also began to think about reducing waste as they were asked to assist students with source separation in the cafeteria. This increase in education has led to a school community that supports the food scrap collections program. The Lower School Headmistress has shown support of the program.

Compost collection began as a pilot in the Lower School. Because of its success, Ms. Wheeler and the Upper School Science teachers plan to involve the Upper School in the fall. Two assemblies and a parent volunteer training session have been planned.

Additionally, the custodian has been extremely supportive of the program. He fills one 64-gallon container a week with yard trimmings, and has trained all his employees to put green waste in the organics bin.

Challenges

Several challenges were encountered during the process. SFRP and KDBS took steps to resolve them.

1. Confusion by Parent Volunteers and Cafeteria Staff. Parent volunteers help students dispose their waste at lunchtime. A letter was mailed in January detailing the food scrap collection program. SFRP and KDBS had thought that this letter would suffice in place of a full parent training because setting a date for the training proved to be challenging. However, not all parents read the letter, and while some understood the process, others were confused. It seemed that the parents who understood how to separate food scraps were doing so at home with the Fantastic 3 program. To remedy this concern, SFRP and KDBS will host a comprehensive parent training in the fall.

Cafeteria staff also presented a problem. English was not the first language. While they understood how to separate food scraps and would do so when an "authority" figure was present (someone from KDBS or SFRP), they wouldn't comply on their own. Their supervisor spoke with them about it repeatedly, and a meeting with SFRP and the cafeteria staff explored their role. It was suggested that their job contract include separating food scraps and recyclables when parent volunteers are unavailable.

2. Student motivation. While most students participated, some continued to throw all materials in the garbage, including recyclables and compostables. More education at the

beginning of the year might help alleviate this problem. SFRP and KDBS plan to have a giant kickoff event with Lower School and Upper School assemblies, parent volunteer training and staff training. KDBS found that students who participated in a waste audit were more likely to separate their waste because they had a greater understanding of why garbage was a problem.

3. Intermediate containers and bags. Because there was only one toter available for food waste, there was a need for intermediate containers in the cafeteria. KDBS was wary of possible odors plus cleanliness of the bins because they did not want to overburden their custodial staff with the additional task of cleaning compost collection bins. They learned about BioCorps compostable bags, and purchased them for cafeteria use. This has helped ease the collection process. Ms. Wheeler has worked with the school's purchasing department to purchase compostable paper plates rather than styrofoam, and to consider BioCorps cornstarch cutlery.

Future plans

KDBS plans to expand the food scrap collections program to the Upper School, train all parent volunteers, and to increase the type of materials collected. KDBS envisions recycling laser printer toner cartridges, and switching from throw-away styrofoam plates to compostable paper plates and BioCorps cutlery for the Upper School. There will be two kickoff assemblies in the fall to educate all students and teachers. The program has become part of KDBS's procedure.

Grattan Elementary School

165 Grattan
San Francisco, CA 94117

Project Coordinator: Jennifer Lippman, 5th Grade teacher
Public elementary school, 375 students
one 64-gallon container, twice a week

Summary

Grattan School has set up a replicable, sustained food scrap collections program. Three 2 ½ gallon buckets sit on a central table, flanked by a garbage can and a crate for paper tray recycling. Two student volunteers monitor the collection buckets and transport the materials to the large 64-gallon outside toter. Although the monitors are present, most students know how to separate their leftovers and do so independently. The program has support of the principal, teachers and student body.

Before participating in the program, Grattan was producing approximately five 32-gallon containers of garbage a day, weighing approximately 50 pounds total. After the program, they cut their waste to three barrels and 30 pounds. There is an increased awareness of composting and recycling at school, and students have taken their awareness home to their families. Grattan is a diverse school in Cole Valley.

Timeline

November 2000	Initial phone meeting with Ms. Lippman to gauge interest Planning meeting with Principal, Ms. Lippman, Sunset Scavenger, grant manager and subcontractor Waste audit, education and outreach begin
December 2000	Students present assembly, collection begins.
January 2001	Program temporarily halted
February 2001	Collection resumes
March 2001	Subcontractor visited Grattan to monitor collection
April 2001	Follow-up waste audit
May 2001	Grattan honored in awards ceremony for outstanding commitment to organics diversion

Successes and Impacts

Grattan has established a waste collection system that diverts material from the landfill, educates the school community, and promotes student leadership. Nearly every student at Grattan has some level of understanding of why waste reduction is beneficial. In

particular, the 5th grade understand how their individual actions amount to a collective change.

The 5th grade's knowledge of composting is exemplary. For example, after they had launched the composting program, they went on an overnight trip to a place that separated fruits and vegetables for vermicomposting. When asked if they knew about composting, numerous hands shot up, and they astounded the camp host with their knowledge.

SFRP had a long relationship with Grattan School, and knew of its interest in waste reduction. Because of this long-standing relationship, both SFRP and Grattan were able to work together with ease. In November, the subcontractor began a week-long training with the 5th grade. They did a waste audit, and prepared a creative assembly to report their findings. Half of the 5th grade wrote and directed an educational skit that incorporated food scrap separation training. The other half prepared colorful posters and brief speeches to read during the assembly. On December 6, 2000, they launched their food scrap collection program with two performances of the assembly. Because much of the program was student-created, there was a higher level of investment and therefore participation.

Challenges

1. Pickup dates and outside contamination. During the beginning stages, there was some confusion as to where the green organics toter was located. Several times, the driver could not find the toter because Grattan's recycling and garbage are kept in two locations. This presented a problem because the toter contained food scraps. This was remedied by clear communication with the driver as to the exact location of the bin. Another issue was outside contamination. Despite efforts by the school to keep only organics in the green toter, someone had put a television in the bin. Moving the green toter to a less obvious location and getting a lock solved this.

2. Intermediate container size. At first, it was thought that Grattan would not use an intermediate container but just put the green toter in the lunchroom. After the second day, it became clear that the toter was too big for little kids, and that leftover food waste in the lunchroom smelled and attracted flies. We tried using a 32-gallon rubber bin, but that was too big for students to carry to the outside toter. Finally, we tried using several 2 ½ gallon buckets with handles, and that proved effective. The buckets are large enough to accommodate food scraps, yet are small enough for an 11 year-old to carry. When full, they weigh at most 10 pounds.

3. Managing volunteer time. When the program began, four volunteers monitored the bins. This became problematic because the volunteers would miss up to a half-hour of classes because younger students ate lunch earlier than the older students. Once the program settled into a routine, there wasn't a need for so many volunteers. It was decided to have two volunteers a day, and that seems to work well.

Future Plans

Grattan plans to continue the food scrap program as there is tremendous support from teachers, the principal and students. Monitoring the collection will continue to be the 5th grade's responsibility. As the Fantastic 3 collection program rolls out into other parts of San Francisco, it is hoped that Grattan students will encourage their adults to participate. It is also hoped that the graduating 5th graders will take their knowledge into Middle School, and help start a similar collections program at their new schools.

Monroe Elementary School

260 Madrid
San Francisco, CA 94112

Public elementary, 500 students
Project Coordinator: Maureen Kell, 3rd grade teacher
one 64-gallon organics container, three times a week

Summary

Monroe School is a diverse school in the Excelsior District. For many students, English is a second language. 3rd grade teacher Maureen Kell became interested in the food scrap collections program after conducting a waste audit with the subcontractor and students from the after school program. Her initial interest was in setting up an on-site vermicomposting program, but after the waste audit, she realized that participation in the collections program would be a better way to reduce waste and educate students.

Monroe School collects about 70 pounds of food waste every day. Four volunteers from the 3rd grade monitor the bins during lunch. Students are excused by table, and they must walk past the compost collection bins and the garbage can before going outside. This encourages source separation, and most students are enthusiastic. Colorful graphics help facilitate the process.

Timeline

October 2000	Vermicomposting presentation to kindergarten, set up classroom worm bin Initial discussion of food scrap collection
November 2000	Phone meeting with 3 rd grade teacher Maureen Kell
December 2000	1 st waste audit with 3 rd grade after school program. Discussion about setting up a school worm bin
January 2001	Planning meeting with 3 rd grade teachers, Sunset Scavenger and the subcontractor.
February 2001	Vermicompost presentations and food scrap separation training to 3 rd grade. 3 rd grade developed and presented training assembly to school. Collection begins. Principal stops collection due to confusion.
March 2001	Principal, 3 rd grade teachers, custodian, cafeteria aide and subcontractor meet to discuss future of collection program Small group training for staff and 3 rd grade 3 rd grade gives classroom presentations to all grades in school
April 2001	Collection resumes with full school support and participation

May 2001 2nd waste audit
Monroe honored in awards ceremony

June 2001 Subcontractor met with teachers to discuss Fall kickoff and
implementation

Successes and Impacts

One of the greatest successes at Monroe was the evolution from one teacher's vision to full-school participation. Ms. Kell initiated the efforts by conducting a waste audit. She gained support from the other three 3rd grade teachers. Although the Principal originally played a more distant role, he became actively involved once collection began, and assisted the monitors in the cafeteria. It became clear that a second outreach effort was needed because of student and staff confusion; a meeting was held with the Principal, the 3rd grade teachers, custodian, cafeteria aide and subcontractor. During that meeting, ideas and visions were shared, and a team approach truly began to manifest. Since that time, the administration and staff have completely supported food scrap collection. As a result, Monroe collects and diverts about 70 pounds of food waste every day.

Additionally, students and staff consider the program part of their routine; some students in the 2nd grade look forward their job as monitors. Although Ms. Kell decided to pursue employment elsewhere, the 3rd grade teachers have incorporated food scrap collection as part of the 3rd grade experience.

A second success was the service-learning approach taken in implementing the program. Students were directly involved from the beginning. They did the waste audits, developed presentations on how the food scrap collection process at school, and trained all the other classrooms. Because they taught the other students, they had a thorough understanding of the process as well as program ownership. As a result, students improved the environmental situation at their school to the best of their abilities, and nearly every student participates in the program.

In addition, the subcontractor worked closely with the kindergarten. She gave a vermicomposting presentation, helped them set up a classroom bin, and harvest the compost. The kindergarten worm bin helps students develop an understanding of the life cycle at an early age.

Challenges

1. Refining goals. The waste reduction project originally had two goals – to separate food waste into both worm food and other food. This proved to be too confusing and too much separation for 500 kids at lunch. A backlog formed at the containers, and students weren't sure where to put their waste. To relieve the confusion, it was decided to mainstream the collection and opt for participation in the food scrap program where all food scraps could be collected. Teachers put large colorful graphics on the collection buckets as visual aids. This seemed to ease the congestion, and promote collection.

2. Gaining school-wide support. This project began as one teacher's vision. While the other third grade teachers supported her, it took some time to convince the administration to give 100%. After it became clear that more training was needed, a meeting was held with the Principal, custodian, cafeteria aide, the third grade teachers and the subcontractor to discuss the program's strengths and weaknesses, and how best to proceed. Once all parties understood the importance of their role, and the students received more in-depth training, there was unified support from administration, teachers and students. Since then, the program has operated smoothly, and has been quite a success.

3. Transcending language barriers. For many students, English was a second language. This language barrier presented a challenge as many students wanted to participate, but weren't sure how to separate their leftovers. The monitors would sort all the food scraps, which became a tedious and unnecessary task. Even with the training, some of the monitors weren't sure about what materials could be composted. To clarify, the subcontractor trained all third graders in groups of 10. They went through set-up, materials separation, monitor duties, emptying the buckets and washing the buckets. This seemed to help, because everyone had a clear sense of what could be composted and what was garbage. Large graphics were put on the buckets, also, and during lunch, students would help others by speaking in Spanish or Mandarin if something was confusing.

Future Plans

Because of the commitment teachers, staff and students have shown, Monroe will continue the program. The subcontractor has talked with Ms. Moreno, the new contact teacher, and a kickoff date has been set. Food scrap collection has become part of the routine at Monroe, and it is likely to continue for many years to come.

St. Ignatius College Preparatory

2001 – 37th Avenue
San Francisco, CA 94116

Project Coordinator: Jim McGarry, Religious Studies teacher
Private high school, 1350 students
one 3-yard organics dumpster, six days a week

St. Ignatius (SI) is a prestigious co-ed Jesuit high school in the Sunset District. It is the first high school in California to participate in a large-scale organics collection program. Religious Studies teacher Jim McGarry became interested in the project while talking to the subcontractor about ways to improve the school's recycling program. The Administrative Board and Buildings & Grounds department became interested when they learned that paper towels were compostable.

SI's organics collection has four components: paper towel collection in the bathrooms, pre-consumer food waste in the kitchen, post-consumer food collection in the cafeteria and outside, and yard trimmings. SI also recycles mixed paper, cardboard and beverage containers.

Before the organics program, SI received collection for two 3-yard garbage containers and two 2-yard paper recycling containers six days a week, plus a 20 yard debris box that was picked up about twice a month. After the program, they have pickup for one 3-yard garbage container, one 3-yard organics container, and two 2-yard paper containers six days a week, and the debris box is collected once a month. The reduction in garbage can be linked to more recycling education and implementing the organics collection program.

Methodology

November 2000	Initial meeting to assess recycling program and interest in food scrap collection Mr. McGarry begins to assess interest among faculty and staff
December 2000	Mr. McGarry, the Nature-Nexus class and the subcontractor conduct a waste audit of cafeteria trash Subcontractor and Sunset Scavenger meet with Administrative Board and Buildings & Grounds to discuss technical and financial aspects of organics collection
January 2001	SI commits to joining the organics program. Subcontractor and other SFRP staff meet with BioCorps to discuss a possible donation of compostable cornstarch bags
February 2001	SI, BioCorps, Sunset Scavenger, subcontractor and other SFRP staff develop action plan and timeline for program launch

- March 2001 Mr. McGarry, Nature-Nexus class and subcontractor develop kick-off assembly.
Assemblies held on March 21 and March 26, local media attend event
Collection begins
- May 2001 *Genesis*, SI's quarterly alumni magazine, featured an article on the organics collection program
one 3-yard garbage dumpster is swapped for one 3-yard organics dumpster
SI honored at awards ceremony
- June 2001 Subcontractor meets with Director of Summer School to plan and implement summer collection
Subcontractor speaks at summer school orientation assembly
Subcontractor meets with Nature-Nexus teacher to discuss fall collection

Successes and Impacts

SI is the first high school in California to implement a school-wide organics collection program. This school's leadership is a result of a dedicated teacher, motivated students, and a school tradition of community service.

Education and Recycling Program expansion

Mr. McGarry and Mr. Paul Totah co-taught the Nature-Nexus class, a senior seminar with 18 students. As part of the class, students collected recyclables, conducted a waste audit, developed in-class presentations, and took the lead on setting up the organics collection program. Effectively, they brought a deeper and real awareness of human impacts on the environment to all of SI, and provided a way to act upon the knowledge.

Mr. McGarry's interest in food scrap collection resulted from a desire to expand the school's recycling program. The school had a good paper and cardboard recycling program and a skeletal beverage container program. Their program was assessed, and food scrap collection was discussed. Now in addition to the food scrap collection, every garbage can is paired with a beverage container recycling bin, every classroom has a paper recycling box, and cardboard recycling has increased.

Setting up the infrastructure at a large high school

One success was setting up the infrastructure to collect organic materials at a large high school. There were four main components: paper towels in the bathrooms, pre-consumer food from the kitchen, post consumer food in the cafeteria and halls, and landscaping. The subcontractor worked closely with Mr. McGarry to address each of these areas and establish the bins.

The school's Buildings & Grounds department supported the program when they learned about BioCorps bags. By using the bags, they would not have to restructure their waste collection route. Instead, they could delineate which bag was garbage and which was compostable by the bag color, and put the bags in the appropriate outside container. Yellow 32-gallon bins with signs for paper towels were placed in every bathroom. This was the first step in program implementation and has been extremely successful.

Students were most actively involved in post-consumer food scrap collection. Eighteen students from Mr. McGarry and Mr. Totah's Nature-Nexus class participated in a cafeteria waste audit. As part of their class, they developed presentations to give to science classes. They also developed an educational training assembly which they presented to the freshmen and sophomores and the juniors and seniors. The yellow compost bins were placed in the cafeteria, outside, in the student center and in the teacher's lounge. After the kickoff assemblies, the students and Mr. McGarry monitored the bins for two weeks. They developed posters to remind others about what materials are compostable, and spread the word to their friends. The Nature Nexus class played a pivotal role in the program's success—they made it high-profile and understandable.

Additionally, SI made several sports banquets low-waste events by using BioCorps bags, plates and cutlery. This modeled environmentally sensitive behavior, and provided SI with the tools to reduce waste at celebratory events.

Once the program began, the kitchen became interested in pre-consumer food scrap collection. The kitchen manager needed a written directive from his supervisor. Currently the kitchen separates waxed paper as well as food scraps. The landscaping contract is being negotiated, and it is hoped that the new landscaper will use the organics collection bin for the green waste.

Partnership with BioCorps

SFRP, SI and BioCorps entered a partnership to help the organics collection program be a success. BioCorps donated a three month supply of compostable bags, cutlery and plates with the understanding that SI purchase bags or other goods during the next year. This partnership was crucial to the program because the bags allowed Buildings & Grounds to collect the material without having to completely change their route. They also reduced odor and food residue.

Media coverage and community support

SI received press coverage from the March 26 kickoff. KCBS radio aired a clip, and the Tsing Tao and Richmond Beacon reported the story. Betsy Rosenberg, host of KCBS radio "Trash Talk" followed up on the program and dedicated one show to SI's organics collection program. Additionally, the SI student newspaper and the alumni magazine Genesis ran full stories.

Support from within the school community continues to grow. The program is continuing into the summer under the guidance of the summer school coordinator. In

the Fall, Mr. Totah, one of the Nature-Nexus teachers, will take the lead. Mr. Totah envisions the program being institutionalized within a few years. Additionally, Supervisor Leland Yee and Solid Waste Management Program Director Paul Horcher spoke before the students at the March 26 kickoff.

Challenges

1. Participation at a large high school. SI is the first high school to collect food scraps along with beverage containers and paper. Because of its size, enforcing collection was a challenge. Jim made compost collection part of his curriculum and assigned students projects around waste reduction. The Nature Nexus class also Because the Nature Nexus class did a waste audit and had an in-depth look at waste reduction and natural resources, they were committed to participating in the program. They had invested a lot of time, energy and thought. They also took the lead on the assemblies, making them more student oriented. Because they were committed to the program, talked about it to others, and did a great deal of the education, their colleagues responded favorably, and participation was strong.

2. Interschool communication. A second aspect of working with a large high school was finding the right contact person in each department. SI does not have a full-time or part-time recycling coordinator. Because most of the staff do not spend the majority of time at their desks, it was often challenging to reach someone via telephone. The subcontractor worked closely with Mr. McGarry to arrange meetings. Other times, program details were discussed in the faculty lunchroom because that was a central location, or the subcontractor would stop by the office unannounced to discuss a program detail.

3. Financial incentives. Because SI is a private school, it is treated as a commercial account, or as a business. The administration needed some financial incentive to fully support program participation. Sunset Scavenger provided a solid understanding of potential cost savings – if SI was to swap one garbage dumpster for one organics dumpster, they would save money because organics collection costs less than garbage collection. Also, if they were to increase their recycling, they could decrease the use of the debris box and save money.

Future plans

The subcontractor and Nature-Nexus co-teacher Paul Totah have met to discuss implementing the program in the fall. Now that the infrastructure is in place, there needs to be more education. Paul suggested an initial assembly as part of orientation, with the Nature Nexus class presenting a second, more in-depth assembly later in the semester. His goal is to have recycling and composting become part of school policy, and to have it be institutionalized. It is envisioned that current incoming Freshmen will have a clear understanding of the system by the time they become Seniors.