Less Trash, More Compost!
A report on a community partnership to reduce trash and promote composting and recycling at a summer camp

Funded in part by the New England Grassroots Environmental Fund

…When campers have something in their hand, they are very likely to ask where is the compost, where is the recycling…and that is exciting…

Counselor, Athol Area YMCA Day Camp

Deb Habib and Kaitlin Doherty
Seeds of Solidarity
November, 2007

Project Background and Goals

"Gross, but fun!" exclaims an eight-year old compost enthusiast, one of over 200 campers, plus counselors and staff at the Athol Area YMCA day camp in Orange, Massachusetts who worked together to successfully divert over one ton of their breakfast and lunch waste from the landfill to compost. And they won't mind telling you that they had fun doing it.

Seeds of Solidarity, a non-profit organization based in Orange, partnered with the summer food service director, the Athol Area YMCA, and a local hauler to implement a composting and recycling initiative, diverting the waste from approximately 3,600 meals at two sites over an eight-week period in the summer of 2007. This pilot project was inspired by success using biodegradable and compostable utensils and plates at the annual North Quabbin Garlic and Arts Festival, also sponsored by Seeds of Solidarity, which results in only two bags of trash for 10,000 people.

Athol and Orange are located in the North Quabbin region, where 20% of the children live below the federal poverty line. Food service director Sherry Fiske runs a state and federally funded summer food service program at 11 sites in Orange and Athol, providing free breakfast and lunch to children and families during the summer months. The YMCA camps based both at the Y site in Athol and Lake Selah in North Orange are among these summer food service sites. While school year lunch programs in the area utilize washable dishes and utensils, the summer food service program is held at temporary sites, resulting in heaping dumpsters of paper, plastic and polystyrene waste.

The goals of this pilot initiative were to:

- Significantly reduce camp food service waste generated during breakfast, lunch and snacks through composting and recycling.
- Link the composting initiative to the camp programming, fostering environmental education among campers and staff.
- Develop a model and process for sorting, transporting and hauling compost from community-based programs that could be replicated by others.
- Educate and inspire those involved to continue to compost and recycle in their own homes and other settings.
- Document and disseminate the process, costs, successes, the challenges, and voices of participants.

This report describes the project partnerships, background, process, products, as well as participant voices concluding with key successes and challenges. Our goals are to provide a comprehensive and honest documentation of the project in an effort to inspire waste reduction initiatives at camps or comparable food service programs. We hope that the experiences of this pilot program documented in this report offer others a template for composting programs that enhance environmental stewardship while working within realistic and common constraints.

Partnerships

This project was made possible through a partnership among Seeds of Solidarity Education Center, Athol Area YMCA, the Summer Food Service Program and Clear View Composting. Each partner played an integral role in supporting the program by bringing specific expertise, enthusiasm, and realistic concerns to the table. A $2,000 grant from the New England Grassroots Environment Fund (NEGEF) helped to offset costs of the pilot project.

Seeds of Solidarity, a Farm and Education Center in Orange, Massachusetts, helped to bring the partners together and provided monetary support through grant funding from NEGEF and in-kind staff time. Seeds of Solidarity supported the educational aspects of the project through providing signage for compost bins, training and presentations for participating staff and campers, as well as project documentation. Seeds of Solidarity and the YMCA had successfully partnered the previous summer, when the organization provided 'cooking with local foods' workshops to the camp, which continued the summer of 2007 as well.

The bulk of the project took place at Camp Selah, an **Athol Area YMCA** day camp on Lake Selah in North Orange. The week prior to and following this 6-week program was held at the YMCA site itself. Linda LeBlanc, the YMCA Child Care Program Director worked with her camp staff and campers to support the project by incorporating the program into their camp curriculum. Linda oversaw the compost project on site at Camp

Selah. She also worked to align her purchasing of camp snacks with the goals of the project by using minimal packaging.

Sherry Fiske, the **Orange School and Summer Food Service** Director had previously partnered with Seeds of Solidarity to carry out school garden initiatives, and was already engaged in purchasing of local farm foods for her breakfast and lunch programs. Building on the success of her local food efforts, Fiske worked to purchase and incorporate as many biodegradable and recyclable materials as possible into the breakfast and lunch program for the camp.

Rick Innes of **Clear View Composting**, who came to be known affectionately by the campers as Captain Compost, provided the technical composting expertise. Rick supplied the containers to sort materials, built an on-site educational compost bin, and transported the compost from camp to his compost operation. In addition to overseeing the compost operation, Rick collected and transported recyclables to the local transfer station. Rick also tracked the weekly waste, recycling and compost amounts by weight and volume, contributing important quantitative data to the final project documentation.

Project Description

The following section aims to provide an overview of the project from the initial meeting of the partners to the actual daily functioning so that other interested communities may learn from our experiences.

Collaboration, Communication, and Roles:

Following conversations with each individual partner, a meeting facilitated by Deb Habib, Executive Director of Seeds of Solidarity, was held at the end of May, to bring together all the project partners. All of the partners were present including Rick Innes from Clear View Composting, Sherry Fiske, Summer Food Service Director, Linda LeBlanc, Child Care Director from the Athol Area YMCA and Deb Habib and Kaitlin Doherty from Seeds of Solidarity Education Center. The objective of this meeting was to communicate the larger goals of the project and to identify each partner's role in working towards these goals. Specifically discussed were the products to be used and the logistics of sorting, weighing, transporting and documenting the "waste."

Food Service Director Sherry Fiske itemized her current product usage and provided insight into food safety regulations regarding the required use of certain products such as plastic bags used for safe transport of prepared food. After an itemized list of products was created, Deb Habib used her familiarity with compostable products to offer possibilities for the substitution of disposable products including paper, cornstarch and potato-starch products. Rick Innes added suggestions based on his expertise including which products he preferred to use due to their decomposition rates and ratios needed to create ideal composting conditions.

While both breakfast and lunch were to be provided by Fiske, Camp Director Linda LeBlanc was responsible for providing snacks at camp and a brainstorm ensued of how to minimize the waste from these daily snacks. LeBlanc agreed to buy in bulk as much as possible and to seek low packaging alternatives to stay consistent with the goal of a trash-free camp.

Rick Innes of Clear View Composting discussed his plan for collecting compost at the camp and transporting the "waste" to his composting operation. Rick showed the group samples of 10, and 28-gallon heavy-duty plastic bins with covers, which he proposed be used to contain the sorted materials from each meal. It was agreed that Rick would monitor the amounts of waste at camp closely for the first two weeks, and based on the needs assessed during the initial weeks, establish routine pick-ups at the camp.

Deb Habib and Kaitlin Doherty from Seeds of Solidarity agreed to provide educational signage to clearly label each bin to promote effective sorting of materials by staff and campers.
The bin labels read:

- Compost Food Scraps: Any Unfinished Food
- Compost –All Paper and Utensils: Paper Trays, Plates, Napkins, Cups, Cornstarch Utensils
- Recycling: Foil, Cans, Bottles
- Trash: Are your sure it's not compostable or recyclable?

In addition, Seeds of Solidarity offered to provide a workshop prior to the beginning of camp, educating both staff and campers about the importance of composting and describing how the process will work at camp.

The initial meeting was an important step in ensuring that each partner was on the same page. The meeting resulted in a comprehensive project plan including a project timeline and perhaps most importantly as a pilot project the establishment of open lines of communication between all partners.

Biodegradable and Recyclable Products Used
There are a variety of biodegradable alternatives to polystyrene and plastic now available to consumers. We have successfully purchased these supplies from two companies in the region—Mansfield Paper in Springfield and Sysco provide food service, janitorial, and paper supplies to school, businesses and industries. These are the primary products purchased and used. The cost difference between these and plastic and polystyrene is discussed in the key successes and challenges section.

The biodegradable products used included:

- Biodegradable cardboard compartment tray
- Cornstarch spoons and forks
- Napkins
- Biodegradable Clam shells
- Unwaxed/uncoated Paper plates

The recyclable products used included:

- Foil wrap
- Milk/juice cartons
- Containers such as individual portion cereals

The products that became garbage included:
Small plastic bags and wrap required for transporting individual portions. Bags for snacks such as individual pretzels and chips, purchased by the Y before the project initiation that needed to be used up and snack and lunch items brought from home by campers.

The Project is Launched

The first few weeks of camp served as a test run in which glitches were ironed out and adjustments were made. The very first and very last weeks of camp were held at the YMCA downtown site, where temporary bins were used for sorting. The six-week bulk of the project took place at Camp Selah, where Rick Innes built a semi-permanent structure that housed the bins and corresponding signs. Rick also constructed a one cubic yard on-site demonstration compost bin, and he and Seeds of Solidarity provided campers with a hands-on demonstration of composting so they understood what would happen to their sorted "waste" once it left the site. Participants were also able to observe the temperature and decomposition process within this model compost bin over the camp duration.

At camp, five campers aged 10-13 who would be there for the six-week duration volunteered to help support the smooth running of the program. These helpers worked both during mealtime and directly with the hauler, Captain Compost. During mealtime, as their fellow campers finished up their meals, the helpers would take their positions at the bins and assist each camper to sort their trays into the appropriate bins. On the occasion that something ended up in the "wrong" bin, the helpers fearlessly re-sorted with a smile and sometimes nose-plug! In addition to mealtime sorting support, the compost leaders assisted Rick during his pick-up at the end of the day. These tasks included weighing and loading the full bins and replacing them with empty bins. Throughout the summer, Rick shared

this quantitative documentation of collection by diversion, weight and volume through weekly e-mails to all of the project partners. As compensation for their fruitful work, LeBlanc awarded each compost helper with a small stipend.

Voices of Camp Participants

Midway through the composting program, Kaitlin Doherty from Seeds of Solidarity conducted short interviews with campers, counselors and camp staff to observe the project's impact on the participants, and the camp as a whole and to incorporate the insights into the report. *See Appendix for list of interview questions.*

Counselor Lindsay D. noted:

> I think one of the most important things that [the campers] are learning is probably that not everything has to be trash and there are a lot of things you can recycle and use again.

Another staff member explained what the kids were taking away from this project:

> That a lot of the stuff is reusable and it doesn't have to be trash.

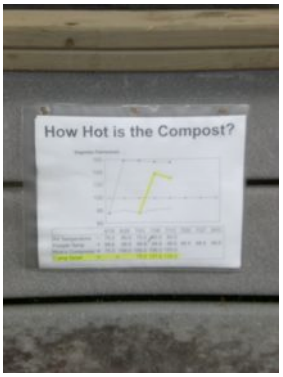
Similarly a counselor in training explained what she thought the kids were getting from the program:

> That they can save things, instead of just getting rid of it. And using up things – that they can reuse them…and not destroy as many things.

A compost helper who was interviewed stated his reason for composting was, "To help out the trees, the plants and the air." Other young campers were interviewed and described their reasons for composting:

> So we don't have litter around. You should never, ever litter….
>
> We can put trash in the compost and them make things out of the stuff.
>
> It's so we have a clean place. Some people think it's okay to throw food scraps away because the birds will eat it. But if you throw wrappers, it's just like trashing the world.

The on-site demonstration compost bin built by Rick Innes adjacent to the food service waste collection bins generated a large amount of enthusiasm from the campers and staff alike, and provided a means to learn about decomposition. Rick created a display graph that compared, human core-temperature, air temperature, the temperature in the camp demonstration compost bin, and the temperature the compost at his site. It was



clear that the documentation and numbers were very interesting to the campers. As one counselor reported,

> A lot of kids are getting into it like when Captain Compost comes to weigh everything, yesterday they were all over there trying to see what the numbers are, and what the temperature was in the compost pile. It's amazing how it's so warm in there where the trays and food breakdown.

Adds another counselor,

> The kids I think are excited to see the compost bin that Rick has set out. We use that for worms [for fishing], and they were very interested to see how much it has shrunk down.

Both campers and staff were struck by the high diversion rate, and what little trash was coming out of camp. Darrel, a long-time camp counselor said that last year he used to load up his pick-up truck with 7-10 bags of trash each day to haul out of the camp, which is set back on a dirt road. This year he transports only about 1-2 bags. Darrel says, "Five percent compared to one hundred percent waste is an impressive number."

Similarly Amanda G., the Arts and Crafts Director reported,

> When you do the numbers from the first week, it amazed them – it amazed me. I think it was 90% [diversion rate] or something like that. So we only took out about one bag of trash a day as compared to last year where they took out about 8-10 bags of trash a day.

A number of staff members shared how important they felt it was for the campers to be involved with such an initiative and also how much more likely it is for kids to change their behavior than adults. Says Darrel,

> It's easier to start composting young because when they are old their habits are harder to change, people become more set in their ways. I think it's important that they learn about composting and recycling because at the end of each day we can have up to 7-10 bags of trash. And we have one or two bags a day now. We need to explain to them that we need to save the planet, not to sound preachy, but it is important.

Similarly, Virgil the nature counselor suggests:

> … It's a lot easier to get [campers] to do it, than it is to get some of the older people to do it. When they have something in their hand, they are very likely to ask where is the compost, where is the recycling, whereas adults, you know, find the first available trash bag and throw it in it. So I think that's exciting.

Just as with Math and Brussels sprouts, Linda LeBlanc reflects, there are people who love it, people who don't like it and the majority of people don't have a strong opinion

one way or the other. But as Camp Director Linda reports, "I was really happy that this happened. It was something really different and special that happened at camp. That even if it isn't right now replicable, it shows everybody that that's where our heart is and that's where our interest lies, and that if this can ever be done at the Y, I'm definitely there."

Overall, the interviews indicated that though there was an initial learning curve, the project quickly became a part of the everyday camp routine. The campers and counselors reported an understanding about the importance of composting and recycling as well as an ability to sort their waste resulting in high diversion rates.

Key Successes and Challenges

In exit interviews with various project partners, each player seemed genuinely excited to have been a part of this project. As with any pilot project, there are parts of the puzzle that call for reflection and improvement and aspects that worked better than expected. This section addresses successes and challenges of this project, in the spirit that other initiatives and partnerships may share in the benefit from our findings and lessons learned. Specifically, within this section we focus on the on-site method of collecting compost at camp, recycling at camp, compost pick-ups and transporting, and education.

Camper leadership and attentive management aids sorting success

It is evident from weekly documentation provided by Clear View Composting that there was a learning curve for both staff and campers. Says Rick, "I think you'll see if you just glance through [the diversion records] that it got more and more systematic and it went smoother and smoother in many ways as the eight weeks went on. The kids really got it down to a science in terms of all the basic stuff. So in that sense I think it went extremely well."

Within the first couple of weeks it became evident that some management issues needed to be addressed to ensure quality sorting of the materials. Linda LeBlanc quickly learned that a rush of campers to the bins resulted in poorly sorted waste and general confusion. Linda encouraged a more thoughtful sorting practice. "It's a slow process, you can't have a massive charge towards the bins."

Inevitably there will be some improperly sorted items. Rick Innes reported, "the 'wrong items' in the bins was a smaller issue than anticipated, but that's not to say that it was a trivial concern." Rick reported roughly 50-70 wrongly sorted compostables weekly, which he then hand-sorted, as addressed in more detail below.


This certificate presented to

In appreciation for his valuable help in making the Summer 2007 Composting & Recycling Program* At the Athol Area YMCA and Camp Selah A big success, with over a ton of material Diverted, or about 90% of the trash!

Date:

* a project of the Athol Area YMCA, the Orange Summer Food Service Program, Seeds of Solidarity Education Center, and Clear View Composting.

Rick Innes, Owner/Trash Diverted Composter

CLEAR VIEW COMPOSTING

In an effort to minimize the wrongly sorting items, Linda used her volunteer compost leaders to monitor the bins after meals and encourage campers to sort correctly. Linda reflected that these helpers were very important to the proper sorting of waste, and she also reported that next year she would include a staff member assigned to oversee this process. Both Linda and Rick made a concerted effort to appreciate the volunteer youth leaders, all of whom received gift certificates, as well as a certificate of appreciation and a bag of souvenir compost at the end of camp, in recognition of their job well done.

Clear signage and user friendly bins are critical

The actual collection bins and method of sorting worked well. The signage was simple including only a few words and pictures, laminated for durability, and posted above each bin. The food scraps were collected in 10 gallon bins, which Rick described were the largest bins you'd want to use given that they weigh approximately 60 pounds when full. The other bulkier but lighter compostable materials: paper trays, cups, and napkins and cornstarch utensils were stacked into 28 gallon grey bins. Additional 'on-the-job' training was needed to train the compost volunteers to stack the trays in an effort to maximize the usage of bin space. At the launch of the program, we discussed and decided on an order of the bins. For example, if "garbage" was first, campers might simply put everything there, as conditioned. The milk container collection, and non-food scrap compost needed to come after food scraps, so that remaining milk and food could be dumped into the food scraps bin first.

Some sorting confusion resulted from the inconsistent use of dinnerware. For example, plastic knives were sometimes used while the spoons and forks used were compostable. Plastic knives were used, as the need for compostable knives was not know and therefore

not included in the original product order. This inconsistency created mixed messages that resulted in incorrectly sorted materials. Another example is that individual breakfast cereal portions were served in recyclable plastic containers, which were consistently wrongly sorted by well-intentioned campers who assumed that they were compostable, as were their other [paper] plates and bowls. Linda reflected that buying in bulk and serving campers food in compostable bowls to maintain consistency of dinnerware could avoid this. However, especially with federally funded programs, there are some safety, health and nutritional requirements that need to be considered in how portions are determined and served, that need to be taken into account.

It is relevant here to identify the interesting shift exposed through the consistent mis-sorting of the plastic cereal cups. By placing the plastic cups in the compostable bins, the participants were assuming that since they appear similar to their compostable counterparts, that the cups must be compostable as well. This demonstrates awareness of compostable products as well as a shift towards assuming things are compostable, versus the former "everything is trash."

Central as well as satellite sorting enhances site-wide integration

An interesting 'teachable moment' occurred, when, in all the efforts to channel waste from the campers' meals, organizers realized that while some staff eat with the kids, most staff eat in The Lodge. Therefore, in order to maximize diversion and maintain a consistent message throughout camp, Linda also placed some collection bins in The Lodge. From this we learned that a thorough brainstorm of potential waste generating places around camp and deliberate placement of collection bins might help to maintain a consistent message and even higher rates of diversion.

Snacks at camp presented a minor problem for a number of reasons. To begin with, the process and consistency inherent with breakfast and lunch was not present during snack-time. Snacks were often eaten in small groups at their activity periods, and not close to the central waste collection bins. With this snack scenario, Linda reported it worked well to have the counselors collect the refuse and sort it at the central point. In a more centrally located snack scenario, and to avoid "chasing cups all afternoon," Linda suggests a bin for compostable cups needs to be directly placed and clearly labeled in the area where snack is being held.

Snacks brought from home by campers and staff created some sorting confusion and accounted for a number of wrongly sorted materials. This was an anticipated issue in initial planning meetings. While all meals and snacks are made available to the campers, it was known that the inevitable 'snackables, ' pudding cups, and ascetic packaged juice drinks would appear. At the beginning of camp, a letter was sent home explaining the compost project and encouraging reusable or paper

packaging, but we knew that we would not be able to control, nor was it our place to, the heavily packaged snack and lunch items that would be brought from home. *See appendix for Sample Letter Home.* This issue alludes to a much a larger issue of packaging and consumerism directed towards children that requires on-going education, and the realization by campers and families that these items "have no place to go " in a composting and recycling system, and in the environment.

Recycling compliments yet complicates composting efforts

Recycling at camp was an important part of diverting waste from the landfill, though upon reflection the method used was not as effective as it could have been. The recyclables were collected in a 28 gallon sorting bin alongside the other bins in the central location. Materials that were recycled such as milk cartons, cereal containers, and aluminium foil often needed rinsing to meet the requirements for the transfer station. The compost volunteers rinsed these materials, though the bags of recycling always needed additional attention. Rick took on the role of transporting the recyclables to his operation site, cleaning and sorting the recyclables and dropping them off at the transfer station. While this effort supported our high diversion rate, this method was inefficient and time intensive for Rick. He suggested that a good alternative is that the camp would take responsibility for the recycling, incorporating a method for rinsing the recyclables to eliminate odors.

It was also suggested that clear plastic bags be used to line the collection bins holding recyclables. Using clear plastic bags, preferably compostable clear bags would enable the handler to see the state of the recyclables. Rick suggested that the consistent use of clear bags for recyclables, compared to black garbage bags for trash, would help to differentiate the bins, and may lead to more efficient sorting.

One final and relevant point made by Rick is that one needs to be realistic about what is feasible. For example while unravelling and peeling cheese off of 70 aluminium foil balls is a heroic act, it is also important to be realistic about budgets and timelines and what items are just too contaminated. This is good advice for any project, large or small. This echoes well with Linda LeBlanc's recollection, "Sometimes I had to laugh at myself, because I was obsessing over cups with [recycle] signs and no signs, and the staff in the lodge putting compostables in the trash and you'd see me with my rear-end up in the air sorting through, and I'm going, I'm the Director! And I said, I've got to do this better next year, but for now I'm not going to let one pudding cup get into the wrong bin!" It is very evident that Both Rick and Linda believe so strongly in the importance of this project, as they put a lot of personal effort into making this work by sorting through garbage and

rinsing off recyclables. With a few program adjustments the program would run even more smoothly, and take some personal pressure off of those in charge.

A composting program can reap short-term costs and long-term value and savings.

As Rick settled into a compost and recycling pick-up routine, he found that he went to the camp about every other day. It is important to address the economics of the project in terms of ability to be replicated. During this pilot project, Rick and Clearview Composting charged $173 for his hauling services over the eight-week period. This was based on $75 per ton, plus a mileage charge for more than one pick up per week. He did not charge additionally for recycling pick-up, but a modest amount for sorting and washing, which could be eliminated if done thoroughly by campers and staff. Rick donated the loan and use of the cubic-yard demonstration composter, and his time spent in initial meetings. Incurred project costs were covered through a grant from the New England Grassroots Environmental Fund secured by Seeds of Solidarity.

In searching for a scenario that would best suit both the YMCA in terms of affordability as well as making it economically viable for a hauler such as Clear View composting, Rick created a variety of hypothetical scenarios based on the data from the pilot project. Of the options, Rick recommended a scenario involving two pickups per week – Wednesday and Friday. For any program Rick noted that it is important that Friday be a standard pick-up so that food waste is not hanging around over the weekend. This twice-a-week scenario would cost the camp about $119 per ton of compostable collections, inclusive. For reference, an average of 70 campers each week eating two meals a day, five days a week for eight weeks generated just less than a ton of compostables.

With less pickups, it then becomes increasingly important to maximize space. In an effort to do this, Rick suggested that instead of transporting compostables in the 28 gallon bins and the food scraps in the 10 gallon bins, all bins could be dumped on-site into large clear or compostable bags, and piled into his truck, secured with a cargo net.

This being said, the other scenarios may better suit other programs. Please see Appendix for chart showing scenarios and estimated costs. In regards to long-term sustainability, costs of hauling compost to suitable sites for processing should be considered in program budgets.

At the same time, standard fees with commercial trash haulers could be negotiated to reflect the great reduction in volume that they will encounter. In addition, short and long term “true costs” must be recognized. While there are upfront costs to remove compostable materials, this material is then turned into a product of value, such as fertile soil for gardens and landscapes whereas if it is not diverted it simply all goes to a local or

municipal landfill. The "true costs" of establishing and maintaining a landfill, to a community, to the environment, and to public health are extensive. Reducing this impact has many long-term benefits.

In regards to the use of biodegradable products, the total costs of using cornstarch based utensils over plastic totalled $97.08 for the 8,876 spoons and 1,017 forks (these are the total utensils, and the cost difference between plastic and cornstarch). A more significant cost came in the use of paper trays over polystyrene, at $591.22 for the 4,223 trays used. While oftentimes the trays were not even dirty after use, federal guidelines require their use for sorting and serving food. At another site without such regulations, or if a waiver could be gained, the costs of biodegradables might be significantly reduced. There is also a higher cost attached to biodegradable products at this point in time, largely because they are a relatively new industry. In addition, many of these products are currently produced in China, as is the case for plastic and polystyrene products as well, which is a concern in terms of energy use to transport. As consumer demand continues to increase for biodegradable products and the cost of fossil fuel based products such as plastic and polystyrene increases, we may see things level out and perhaps turn to domestic production. In addition, the true cost of these petroleum based and synthetic products must be considered not only in the production and acquisition cost of the product, but in their impact regarding environmental toxicity, impact on human and ecosystem health, and filling of landfills due to inability to decompose.

Education of partners, campers, and staff is essential to program success

Rick suggested that the "Educational efforts should be maintained as much as possible – I felt like we got a lot out of that, in terms of making it work." Three separate educational initiatives were organized to help train the program participants.

Seeds of Solidarity provided a workshop for camp kids at the YMCA in Athol, called "Let it Rot." This was essentially an introduction to the project, and included some hands-on activities to introduce the campers to the idea of sorting their "trash." Linda LeBlanc, a fourth grade teacher before her role as Child Services Director at the YMCA suggested that it would be also be good to introduce the campers to some basic scientific principles, such as decomposition and the recycling of matter to enable depth of understanding. In addition, Seeds of Solidarity provided a parallel educational program to the camp for the second year in a row, a series of "cooking with local foods" lessons. These activities provided an opportunity for Seeds of Solidarity staff to reinforce the theme of eating fresh food to enhance health, local farms, and reduce packaging waste and food miles, all aligned with the waste reduction efforts taking place.

Rick Innes organized the second education initiative. He set up an educational compost bin on-site, which served as an on-going educational resource, and incidentally a source for worms for fishing! At the onset of camp, Rick and Seeds of Solidarity staff offered

consecutive workshops to campers after lunch one day, where they had the opportunity to layer their sorted compostables with straw, soil, and woodchips, replicating the type of system Rick has on a larger scale at his Clear View Compost site in downtown Orange.

The third initiative was organized by Linda LeBlanc who included a mini-workshop during her staff-training week at the beginning of the summer.

While these educational efforts were important to educate the campers and staff, the program faced significant challenges due to staff turnover rates, which created the need for frequent re-training. As Linda suggested earlier, having one staff member responsible for overseeing the project would enable a point person to formally or informally train incoming staff.

These educational efforts did pay off however. As Virgil W., the lead nature counselor reflected, the program simply became part of daily life at camp.

> I think it's sort of faded into the background, and I don't mean that in a bad way. It's just that it's something that's there and they do. It's more a part of daily life, and I think that's a good thing. How much can you talk about driving to school? You don't have to talk about it, because it's normal, everyday stuff and we don't think about it. And in a sense, if it reaches that level then it's good. You want to raise the awareness, so you do want them to think about it some, but you don't want it to be this special thing, the weird special thing you do at camp.

Do Try This!

Summary of Key Considerations

1. Build projects around community partnerships. Ensure all partners are clear on roles and develop a system for regular communication. Some possible partners may include– camp or similar site, food service director, local hauler, and an environmental educator.
2. Set reasonable goals and be realistic about what is feasible.
3. Hold short workshops at the outset of the composting initiative to educate staff and students both about the importance of composting and the methods for collection to be used.
4. Educate all about packaging in snacks from home to encourage 'buy-in' and enthusiasm among families.
5. Designate an interested and dedicated staff member to oversee the composting project. This staff member may be responsible for such things as:
    - Assisting with initial training of campers and counselors
    - On going training for new staff and campers
    - Working with a small group of campers to ensure effective sorting of materials
6. Invite the participation of youth leaders and recognize their efforts.
7. Use clear, simple signage and user-friendly bins to encourage effective sorting.

    - Place sorting bins in all the areas where food service waste will be generated to enhance site-wide integration.
    - Use clear bags for compost and recycling and black bags for garbage to promote effective sorting.
    - As much as possible, maintain consistency of dinnerware.
8. Develop a clear system for rinsing and dealing with recyclables.
9. Include an on-site demonstration compost bin to enhance participant understanding by providing a model of what happens to the 'waste'.

Trying initiatives such as Less Trash, More Compost will enable us to create new ways of doing things on this planet with finite resources that promote learning and stewardship.

Together we can put everything in its' place.

Appendix.
Interview Questions for Project Participants

Campers -- General

1) Can you tell me what you do with your stuff after you eat?
2) What have you learned about separating your garbage? What's fun about separating your garbage and what's hard?
3) Why do you think it is important to compost? Or, Why are we composting and recycling?
4) Have you told anyone outside of camp about what you are doing here? Who did you tell and what did you tell them?
5) How can you continue composting and recycling at home or school?
6) What else do you want to say about composting and recycling at camp?

Campers -- Compost Leaders

1) What have your responsibilities been as a compost leader?
2) What have you learned while being a camp compost leader? What's fun about being a compost leader and what's hard?
3) Why do you think it is important to compost? Or, Why are we composting and recycling?
4) Have you told anyone outside of camp about what you are doing here? Who did you tell and what did you tell them?
5) How can you continue composting and recycling at home or school?
6) What else do you want to say about composting and recycling at camp?

Counselors

1) What do you think is the most important thing that the kids are learning?
2) From your perspective what are the feelings of the campers towards the composting project?
3) Have you told anyone outside of camp about what you are doing here? Who did you tell and what did you tell them?
4) How can you continue composting and recycling at home or school?

Lead Nature Counselor

1) Can you explain your role in the composting project?
2) Can you describe some things that you've observed about how the kids are challenged or excited?
3) What do you think the most important thing is kids are learning?
4) If you were to run this same program next year – what would you keep the same and what might you change?

Appendix.
Sample Letter Home

LESS TRASH, MORE COMPOST
WE CAN DO IT TOGETHER!

Dear Families of Athol Area YMCA Campers, June 22, 2007

This letter is to let you know about an **exciting partnership** at camp this summer that unites the Athol Area YMCA, Seeds of Solidarity Education Center, the Summer Food Service Program, and Clearview Compost. In order to make as little trash as possible while educating campers and counselors about composting and recycling, campers will be sorting all of their breakfast and lunch waste accordingly. The Summer Food Service that provides wonderful breakfasts and lunches to camp is doing an amazing thing by using paper (instead of Styrofoam) lunch trays and utensils made of cornstarch instead of plastic as these can be composted! Last year between 9-10 bags of trash were produced every day at camp. We hope to get it down to less then one each day this year, and instead produce compostable material that will be transformed into fertile soil by Clearview Compost. Campers will help chart and graph their efforts and learn a lot about environmental stewardship and cooperation through this unique project.

And you can help…
As you know, meals and snacks are provided at camp. However, if you do need to send food or drinks with your camper, please try to use as few items as possible that result in trash.

Here are some ideas…

- **Paper bags rather than plastic are great**
- **Send snack items in re-usable Tupperware type containers rather than disposable containers**
- **We will recycle cans and bottles so those are better than "box juice' type containers—and a thermos is best of all!**

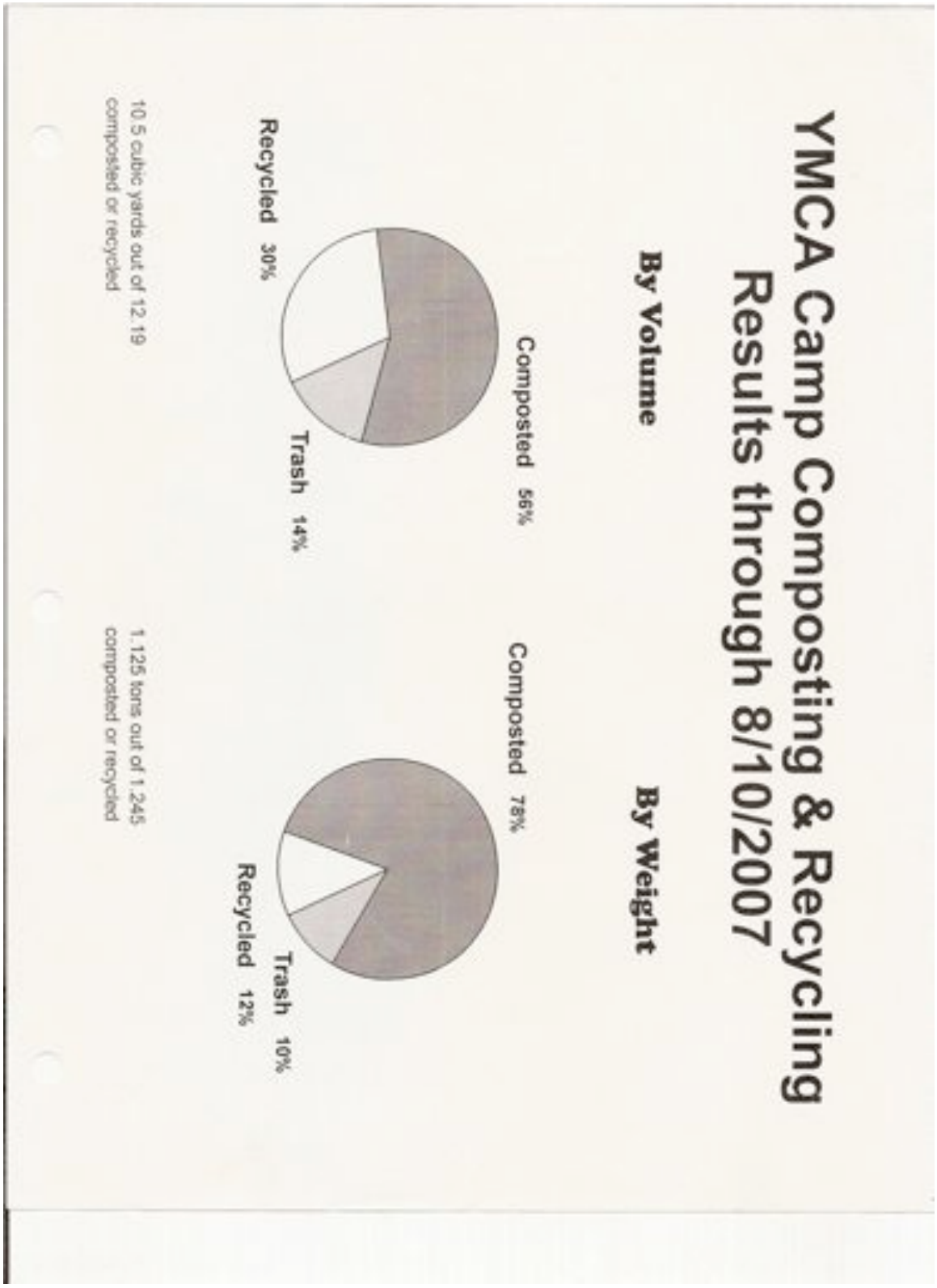
And…Ask your child what they are learning about composting and recycling to enhance their learning and enthusiasm for the project!

In addition to this composting program, Seeds of Solidarity is providing a series of "Cooking with Local Foods" programs at the camp. Last year this was a great success, and we are excited to continue the program—your camper may come home with some great recipes for homemade cornbread and strawberry smoothies.

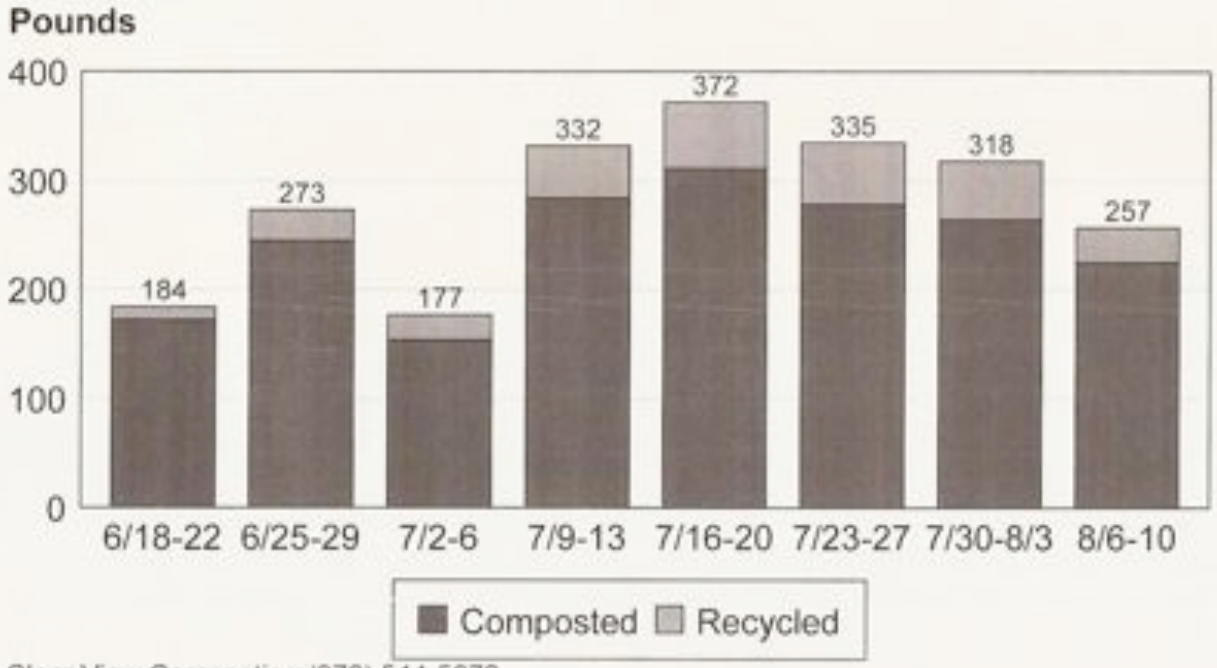
If you have any questions, please contact Deb Habib at Seeds of Solidarity (978) 544-9023 or Linda LeBlanc, Camp Director.

THANK YOU FOR YOUR SUPPORT!

Appendix.
Clear View Composting Project Results and Documentation



YMCA Camp Results: Week by week through 8/10/07



Clear View Composting (978) 544-5872

YMCA Camp Compost/Recycling Collections -- SUMMARY

Week	BY WEIGHT Category	Pounds	Wgt Diversion Rates		BY VOLUME Category	Gallons	Vol. Diversion Rates	
One (6/18-6/22) (@ Athol Y)	Compost	172.2	Compost	89%	Compost	180	Compost	77%
	Recycle	12.1	C + Recycl	95%	Recycle	28	C + Recycl	89%
	Trash	10			Trash	25		
	TOTAL	194.3			TOTAL	233		
Two (6/25-29)	Compost	245.6	Compost	74%	Compost	287	Compost	66%
	Recycle	28.6	C + Recycl	83%	Recycle	60.5	C + Recycl	79%
	Trash	57.2			Trash	90		
	TOTAL	331.4			TOTAL	438		
Three (7/2-7/6)	Compost	154.4	Compost	72%	Compost	178	Compost	61%
	Recycle	23.6	C + Recycl	83%	Recycle	63	C + Recycl	83%
	Trash	36.75			Trash	50		
	TOTAL	214.8			TOTAL	291		
Four (7/9-7/13)	Compost	283.8	Compost	82%	Compost	174	Compost	51%
	Recycle	47.8	C + Recycl	95%	Recycle	139	C + Recycl	91%
	Trash	16.2			Trash	31		
	TOTAL	347.8			TOTAL	344		
Five (7/16-7/20)	Compost	310.8	Compost	78%	Compost	164	Compost	49%
	Recycle	61.3	C + Recycl	93%	Recycle	144	C + Recycl	91%
	Trash	26.8			Trash	30		
	TOTAL	398.9			TOTAL	338		
Six (7/23-7/27)	Compost	278.2	Compost	76%	Compost	150	Compost	48%
	Recycle	57	C + Recycl	91%	Recycle	121	C + Recycl	87%
	Trash	32.8			Trash	42		
	TOTAL	368.0			TOTAL	313		
Seven (7/30-8/3)	Compost	263.8	Compost	72%	Compost	134	Compost	44%
	Recycle	54.3	C + Recycl	87%	Recycle	116	C + Recycl	81%
	Trash	48.4			Trash	58		
	TOTAL	366.5			TOTAL	308		
Eight (8/6-8/10) (@ Athol Y)	Compost	225	Compost	84%	Compost	115	Compost	58%
	Recycle	32	C + Recycl	96%	Recycle	67	C + Recycl	91%
	Trash	11.4			Trash	17		
	TOTAL	268.4			TOTAL	199		
Cumulative Results	Compost	1933.8	Compost	78%	Compost	1381.5	Compost	56%
	Recycle	316.7	C + Recycl	90%	Recycle	738.5	C + Recycl	86%
	Trash	239.55			Trash	343		
	TOTAL	2490.1			TOTAL	2463		
	RCI Haul	2250.5	1.125 tons		RCI Haul	2120	10.50 cu yds	

Totals in TONS		Totals in Cubic Yards	
Compost	0.967	Compost	6.84
Recycle	0.158	Recycle	3.66
Trash	0.120	Trash	1.70
TOTAL	1.245	TOTAL	12.19

09/20/2007 (978) 544-5872 YMCA07.WK4

YMCA Camp Compost/Recycling Collections -- ANALYSIS

Comparison of Collection Scenarios

(1) 2007 Pilot as Carried Out

Number of Camp Days = 39 (8 weeks, less 1 holiday)
Average Volume/Day = 35.4 gallons (27.6 after volume reduction training)
Average Weight/Day = 49.6 pounds
Number of Pickups made = 31 (average of not quite 4/week)
Average Volume/Pickup = 44.5 gallons
Average Weight/Pickup = 62.4 pounds
Billing Arrangement: $75/ton base charge, $0.40/mile for pickups above one/week
(but 2 of those add'l pickups not charged for)
Resulting Collection Charge = $173.33 **or $179/ton**
CVComp mileage = 462 CVComp time = 34 hours

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(2) Assumptions for 2008 Scenarios:

Number of Camp Days = 39 (8 weeks, less 1 holiday)
Average Volume/Day = 30 gallons
Average Weight/Day = 50 pounds

Scenario One: THREE Pickups per Week (2 for Holiday week)

Number of Pickups made = 23
Average Volume/Pickup = 50.8 gallons
Average Weight/Pickup = 84.8 pounds
Base Collection Charge = $78.00 (.975 tons @ $80/ton)
Add'l Collection Charge = $72.00 (15 trips x 12 miles x $0.40/mile)
Total Resulting Collection Charge = $150.00 **or $154/ton**
CVComp mileage = 312 CVComp time = 26 hours

Scenario Two: TWO Pickups per Week

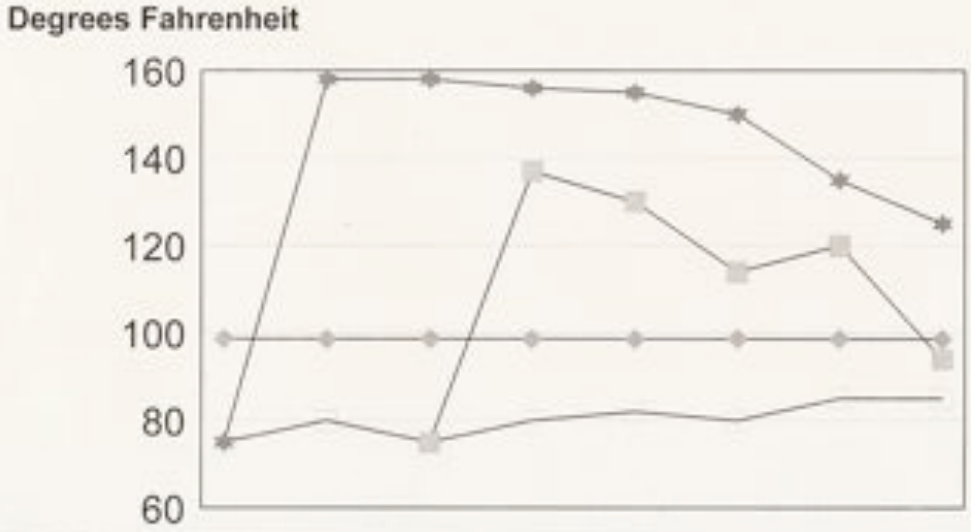
Number of Pickups made = 16
Average Volume/Pickup = 73.1 gallons
Average Weight/Pickup = 121.9 pounds
Base Collection Charge = $78.00 (.975 tons @ $80/ton)
Add'l Collection Charge = $38.40 (8 trips x 12 miles x $0.40/mile)
Total Resulting Collection Charge = $116.40 **or $119/ton**
CVComp mileage = 228 CVComp time = 19 hours

Scenario Three: ONE Pickup per Week

Number of Pickups made = 8
Average Volume/Pickup = 146.25 gallons
Average Weight/Pickup = 243.8 pounds
Base Collection Charge = $78.00 (.975 tons @ $80/ton)
Add'l Collection Charge = $0.00 (0 trips x 12 miles x $0.40/mile)
Total Resulting Collection Charge = $78.00 **or $80/ton**
CVComp mileage = 132 CVComp time = 11 hours

(sheet F)

How Hot is the Compost?



	6/18	6/28	7/03	7/06	7/13	7/20	7/27	8/01
Air Temperature	75.0	80.0	75.0	80.0	82.0	80.0	85.0	85.0
People Temp	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
Rick's Composter	75.0	158.0	158.0	156.0	155.0	150.0	135.0	125.0
Camp Selah			75.0	137.0	130.0	114.0	120.0	94.0