

ALASKA SOLID WASTE NEWS

Winter's End Issue

In Winter is Spring's preparation...



Greetings Everyone! It has been a cold, snowy winter here. Records broken all over. It reminds us that our world can surprise us. And while temperatures and snow depth are easy to see, there are an infinite number of details that constantly change and interact in the environment to result in these temperatures and heavy snow. Traditional Ecological Knowledge (TEK) is the term used for indigenous/tribal knowledge based on thousands of years of observations that reflect all of the variables in our world. It's what Elders have and what we all hope we will gain

as we learn from them. Here in Alaska, it is also known simply as "Knowledge", because it is the true, full information that we need to make good decisions. Sharing information with each other is a cultural value for most communities. Community knowledge is a great resource. Working together, communities can achieve amazing results – improving their health and well-being. Unfortunately, many Environmental programs run into problems in convincing their community to

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participate in decisions and activities that affect them. So this newsletter discusses community outreach and education – particularly as it relates to our continued theme topic of sustainable collection programs. Rounding out this newsletter issue is a visit to Gustavus. Their landfill and program really is unique and offers an interesting model for folks ready to take their recycling, waste reuse, or composting programs to the next level. If your landfill has issues with windblown wastes, or you're not able run heavy equipment to consolidate and compact it – check out their balefill as a potential solution. Finally, look at our calendar for upcoming events and funding opportunities. There isn't a lot of solid waste funding, so it pays to be creative and take as many opportunities as makes sense!

Community Outreach and Education: Village Ideas & Lessons Learned

In the past 3 issues we have explored in-depth different aspects of starting a collection program. We've been focusing on collection programs because they are, in most cases, the single most effective and achievable means of reducing your community's solid waste health risks and protecting your environment. See the end of this article for resources that discuss the why's and how's of collection programs.



We all know that one of the biggest obstacles – or probably the biggest! – is to *convince the community* to pay for collection, to practice safe disposal, and to use the available recycling programs.



So this article is about reaching the community, working with them so that they know the facts, and making that convincing argument for a *positive change*. We can't guarantee that any of these methods will work in your community, but they've all worked in some villages. And since you are your community's expert – you'll be able to choose and modify the efforts that might work best where you live. If they don't work – remember the saying, *Try, Try, and Try again*. Everyone fails, Everyone experiments. Think John Baker and 16 Iditarods before he not only won, but broke the speed record.



First up are the great ideas generated from the 40 attendees at our Outreach Session at AFE this year. We broke into groups assigned to different education methods: Flyers; Newsletters; Facebook; radio/VHF; and community meetings. All the groups were tasked with developing something that would convince their communities to pay for a sustainable collection program. At the end, we presented what we worked on.

Here are some highlights:



Newsletters: Folks thought of Discount coupons on the first page of the newsletter, a funny "Why should I pay for collection" article (e.g. Less laundry! Someone else gets to smell that stench!, No more flat tires!), regular features like a Youth interviewing an

Elder, a photo contest judged by Elders, and an article on community health risks posed without a collection program. They also thought of giving out a raffle ticket for each month of paid collection program, and printing the monthly winners in the newsletter.

Flyers: Folks came up with some great flyers. A lot of them educated people on appropriate disposal practices. Some educated on health. The flyer that got the biggest applause and laughs from the audience targeted the practice of burning



trash to reduce the number of trips people made to the dump. The idea is that a collection program would eliminate the need for waste burning in town. Dump burning would be less often also and safer because it could be done only by the collection technician, wastes would be more consolidated so there'd be less need to burn, and burning could be controlled so that it was only done when the town was upwind. The flyer reads, "Can you smell the smoke? Not for long because if you continue burning your trash while wind is blowing into town, you'll be dead...". Pretty direct, huh ☺? You can see all the flyers at http://www.zendergroup.org/flyer_examples.html

Community Meetings: Folks discussed the good and bad meetings they had been in, and came up with a "what works" and "what doesn't" list. Some examples of what works:

- Post flyers one week, and then one hour before, the meeting.
- Announce it over the VHF
- Have a well-defined agenda
- Make people smile
- Get Elders and Youth involved
- Start and end on a positive note
- The best time, week-days in the evening around 7pm
- Have a social gathering at the end of the meeting.

Everyone agreed that **door prizes don't actually work**. They get folks to the meeting, but for the

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wrong reasons, and it can be disruptive to others to have so many there that aren't interested in the topic. More tips and a sample agenda are up on our site.



VHF & Radio: This group had great short messages (often termed PSAs for "Public Service Announcements".) We don't have recordings, but we do have some notes from the group. Everyone thought that having **kids be part of the announcement** is a good idea to get folks to listen. Who announces is important and, other than kids, it should be someone that folk's respect, such as an Elder. **Use VHF when you want to get immediate feedback on an idea** – such as setting the day of a meeting, or designing the program. **Use different messages for different groups.** What appeals to Elders isn't the same as what appeals to young adults.



Facebook: Use it! A lot of folks use Facebook so this is a good venue to talk about the collection program and get ideas from the community. Try creating a Group, Event (such as a community meeting), or Facebook Page. Create some lively discussion and trending topics. Remember to post at a time where your message doesn't get buried with all the other incoming messages.



Summary: One common theme from all the groups is that **positive messages are better than negative ones.** Tips and notes from all the groups are at http://www.zendergroup.org/education_coll.html .

For all of these outreach methods, we also have some really good general tips when planning an effective community education program. See "**Tips on Getting the Message Out**" at <http://www.zendergroup.org/education.html> .



Example tips include thinking about font size, color, typeface, message timing, message targeting, etc. Each factsheet lists the advantages and disadvantages of using that form of communication. **If your education program has "hit a wall", review these tips to see if there is something that might help.**

And if you need collection program information in general, please be sure to visit our ever-expanding library of documents that have been compiled specific to Alaska Villages at:



<http://www.zendergroup.org/collection.html>

How do *you* get the community engaged? Do they feel they are part of the process and that their knowledge is valued? Do you know who it is you are reaching, and who you are not reaching – and why? Every community is unique and has a set of social values and ways of living. There are lots of reasons that people may not be participating where you are. Unfortunately, one of the reasons is that several folks nowadays-- even in our villages-- have been influenced by a new attitude that people should be paid for every contribution to their community. And if they are not paid, then it is not their problem. They won't make an effort to discard wastes properly; they won't help to cleanup; and they won't pay someone else to cleanup. It is an attitude that is foreign to Alaska Native values and the tight-knit community structure that has allowed villages to thrive and survive for thousands of years. Environmental staff have a difficult job when faced with this attitude. So it's important to share any successes.



For some of these lessons learned, please see our Alaska community involvement "database" at www.zendergroup.org/docs/comm_involv_AK.pdf And see several Alaska resources and other example projects for education and outreach at http://www.zendergroup.org/docs/env_ed.pdf .



As always, if you have any questions or would like assistance in planning, funding, starting, and improving your collection program, please contact us. Our assistance is free, thanks to USDA Rural Development. Email Simone Sebalo, ssebalo@zendergroup.org, call us at 277-2111, or fill out the form at: http://www.zendergroup.org/docs/sw_request.pdf .

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Village Spotlight: Gustavus

Gustavus, a community of about 450 year-round residents, with a high tourist season population, was once known as Strawberry Point due to the abundance of wild strawberries in the area. It lies 48 air miles northwest of Juneau, and it is surrounded by Glacier Bay National Park on three sides. Paul Berry has been the “dumpmaster” in Gustavus for almost 18 years. With his hard work, what began as a driveway with three aluminum can bins, three glass bottle bins, and a chain link fence has grown to a “balefill” with a wide-ranging recycling program and a strong food waste composting program. The Gustavus facility is called the Disposal and Recycling Center, or the

“DRC”. They place a big emphasis on managing their wastes as environmentally sound as possible.



A school tour of the compost

Where the Food Waste Goes:

The composting program started in 1995 because several community members

wanted to take advantage of the bear resistant fence at the DRC. They started with 5-gallon buckets and simple pallet-sized bins. Mixing was infrequent and the piles would become “anaerobic”, meaning the compost process happens in the absence of air. Anaerobic composting causes a strong odor- but the small quantities caused no concern from neighbors.

In 2001, everything changed because the Glacier Bay Lodge started using the DRC. The food waste coming into the facility went up from about 300 pounds each week to 700 to 1,000 pounds *per day* of operation. The facility was not designed by a consultant. So it was difficult for a “grassroots effort” program with community purposes in mind to handle these large commercial loads. Yet by 2005, the height of the program, they were processing about 70,000 pounds of food waste each year.

The early composting method used large windrows because they were easy to construct. But large windrows made for poor mixing of food waste. Since

the compost was covered by impermeable tarps and no bulking agent was used, the composting was often anaerobic. Odor complaints came from neighbors when the piles were turned. This is one of the reasons why Paul is quick to say that the composting facility is the community’s “pride and joy, but also our biggest liability”. But by 2006, wood chips had been incorporated into the process as a bulking agent and breathable covers were installed so that the process moved from mostly anaerobic to a less-smelly “aerobic” setup – meaning air was allowed in. What is more, the piles are kept small enough to not require turning anymore (a method called “static piles”).

One of the beauties of the composting program is that food waste is being diverted from the landfill. Composting also helps keep the baling facility clean. Gustavus uses a trash baler and when food is compacted the baler produces what Paul lovingly calls “baler goo”. This goo is the liquid that is squished out of the food and it creates a smelly mess for the operator. So composting makes the operator’s job much



Putting food scraps in the bobcat

more pleasant. Another benefit to composting is the “cool” factor. Composting is different and fairly uncommon for Alaskan

communities. Paul thinks that the composting program definitely creates community interest in the facility overall.

Learning how to compost

Early on, Paul figured out that the stench they were getting was from anaerobic conditions when he took an online composting course and did some reading on his own time. The odor complaints also inspired Paul to start a daily log called the “odor index”, which is a

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subjective “nasal appraisal”. He made a scale from 0 to 4 for the operator to rank how bad the odor was each day. He says that since he began carefully using their new setup and processing smaller quantities he has never received a complaint from the community.

Turning compost into profit

One of the great things about composting is that you can literally turn your trash into treasure. The DRC is able to sell the nutrient-rich soil that comes from composting back to the community. They make enough money to cover about half the expenses of maintaining the composting facility. In addition, each person is charged per pound of food waste that they bring. Overall, the system is able to operate affordably.

Composting in the winter

Gustavus continues their composting program throughout the winter. Being located in Southeast Alaska and near the coast gives Gustavus an advantage of having relatively warm Alaska winter temperatures. And additionally, a Quonset hut is used to house the compost in the winter.

Another factor that adds to the community’s ability to compost in the winter is that their biggest compost volumes by far are in the summer. That is when Glacier Bay National Park has peak tourism so the DRC processes much more food waste and more often. Paul processes food waste about once a *week* in the summer, but in the winter that slows to about once a *month*.

In winter, the food waste sits in two static piles inside the Quonset hut. The waste composts slower than in the summer but only 350 pounds of food waste are brought in each week, so there is plenty of room for the operation.



School tour of recycling facility

started to discourage burning. Dropping off aluminum cans and other non-ferrous metals are free-of-charge. But to keep the program running, Gustavus charges

people money to drop off other recyclables. And people actually pay -- \$0.14 per pound of recyclable!!

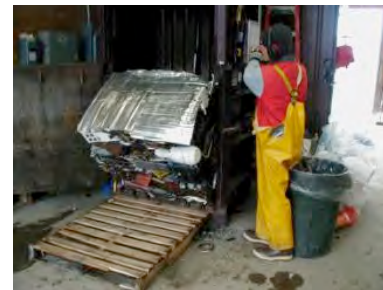


Recycling baler

Glass is very heavy so people were reluctant to pay the per pound recycling fee. To get more recycling from businesses, Gustavus started to offer half price glass recycling if businesses also brought in their #1 and #2 plastics to

recycle. This discount increased the amount of glass that was brought in for recycling and the amount of plastic. Gustavus owns a glass pulverizer. They pulverize the glass and reuse it for making driveways in the community!

Once the other recycling is collected, it is baled



Baling scrap metal

with a full-size baler owned by the Park Service, and backhauled 3 to 5 times per year to Seattle. There is no local barge service so a local company takes the

recycling to Juneau. Gustavus works with four different vendors to handle their recycling: Seattle Iron & Metals Corporation, International Paper, Total Reclaim, and All Battery Sales. Even though residents are charged for recycling, Gustavus pays about \$0.15 to \$0.17 a pound for backhauling so the operation still often runs at a slight loss.

The community has a neat visual tool for helping residents to recycle. The various bins for recycling different materials are against a wall, and above are pinned actual items like milk jugs, plastic bottles, and mixed paper. Some items are marked as “yes” and others are marked as “no” to identify what is and is not recyclable.

Gustavus is truly a recycling community. While

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not everyone uses the DRC for their trash, the DRC gets a lot of recyclables. In fact, with the composting and backhaul services, over 60% of the wastes (by weight) that come into the DRC are recycled!



Where the Reusable Wastes go:

Gustavus also has a full-service used materials/thrift store called the Community Chest. The DRC manages the store, and community volunteers run the store. They accept all sorts of used items – nearly anything that can be reused and safely handled by the store. This includes clothes, books, toys, bikes, lumber, construction items, pipes, windows, paints, etc. The



The Community Chest

store brings in profits of \$8,000 to \$10,000 per year, and that money goes to operating the DRC. The materials and wastes that the store can't sell are brought to the landfill.

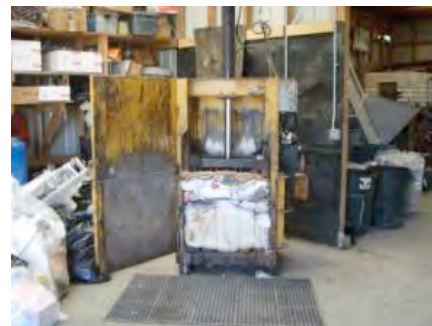
Where the Trash goes:

What do they do with this trash? They bale it! They use a baler to compact the trash before putting it in the landfill. This type of landfill is called a "balefill". There are just a few Alaskan communities with balefills and Gustavus is the smallest. In fact, unlike communities such as Unalakleet and Kotzebue, their baler is actually a recycling baler – making bales about 350 lbs to 450 lbs in weight, and a bale size of 30" wide x 24" deep x 30" high. Because they don't need to consolidate or compact their landfill, their only heavy equipment is a Bobcat with multiple attachments. So

this type of balefill is a potentially sustainable operation for other small villages.

Paul says that transitioning from a regular landfill to having a baler in 1995 was probably one of the hardest transitions he has made. All of a sudden, he had to think about trash in a different way and figure out how to sort and process the waste. He also had to find a way to explain the process to the public.

For example, the baler operator was having a very unpleasant time using the baler when there were diapers and cat litter in the trash. So Gustavus started asking households to separate their diapers and cat litter from their regular trash. When residents drop off trash, they drop-off their diapers and cat litter into a separate facility bin. This waste is then placed in the space



Their trash baler

between the bales in the balefill. Now the operator is much happier doing his job.

Paul also emphasized the importance of

sizing your baler correctly. Determine the size of the baler based upon the amount of waste you process. If you get something too big then you have to wait awhile to have enough trash to compact. However, if you get something too small then you will have to bale more frequently.

Obviously, construction debris doesn't compact too well. To handle waste such as concrete, lumber, and other non-recyclable, non-reusable materials that are difficult to bale, they have an "inert waste" cell for customers to drop off wastes.

Paul put together a general operating plan to fulfill ADEC's permitting procedures. The operating plan includes guidance on what waste the facility accepts, how the waste is handled, what equipment and model numbers the facility owns, and what training is necessary for various operator positions. To see a copy of the plan go to: http://www.zendergroup.org/docs/op_plan_gustavus.pdf

DRC Administration & Sustainability

Paul would like to perform an analysis of the community wastestream for more accurate numbers, but he estimates that the DRC receives about 25% of the total waste in Gustavus. He was quick to point out that they could never get all of the community's waste because many families-- like his own-- compost in their own backyards. And as long



The trash bales in place.

And open burning is not prohibited by the City.

To encourage people to separate their recyclables Gustavus has a fee structure based on weight and type of waste. The lowest rate is charged for recyclables, a higher rate for non-recyclables, and the highest rate for "mixed" waste where there is no separation of recyclables. The biggest expense for DRC is personnel and they also pay out around \$10,000 to backhaul recyclables. They maintain insurance as well. But with the fees it charges for food wastes, recycling, and trash, and the profits it makes from compost sales and Community Chest store sales, Gustavus only needs the City to contribute about 17% of its budget— about \$11,500



Balefill with cover over it.

last year. Gustavus does not have an IGAP program so they cannot rely on IGAP staff or funds to supplement their budget.

Over the years, Paul has learned quite a few lessons about operating a solid waste facility. He recommends hiring someone part-time to perform education and outreach and develop materials. This requires a lot of work and it is difficult for the operator to keep up with day-to-

as Gustavus continues charging a fee for disposing trash, he knows that some people will continue to choose open burning in their yards. Being a community with roads, the houses are fairly spread out.

day tasks while also being expected to do effective public outreach.

One helpful public outreach tool that they do is a school tour of the facility once a year. Kids learn more about what happens to their trash. It is also an excellent tool to get kids talking to their parents about composting and recycling.

Paul encourages operators to "share the love" with their residents. What he actually means by this is that it is important for solid waste operators to *share the burden of processing and sorting* with the public. The operator should not have to take on all the responsibility of sorting through the trash.

Getting the right blend of customer and operator involvement is important in keeping everyone happy. You do not want to "overload" the operator or the public with responsibilities. And he says to remember to be patient with your customers because it can be a steep learning curve



Connex of recyclables ready to ship

for them to understand how to properly use the facilities.

Paul's long-term goal is to make the facility a zero-waste facility, meaning he would like to landfill as little trash as possible.

Having a composting and recycling program certainly pushes the facility in that direction. For more information on the solid waste facility at Gustavus, visit their website at:

<http://cms.gustavus-ak.gov/services/DRC>

If you'd like to contact Paul Berry directly, he welcomes your questions. He can be reached at 907-697-2118 or at dumpmaster@gustavus-ak.gov.

Other Resources: For more information on composting, go to this link:

www.zendergroup.org/docs/Composting2011.pdf .

For more information about recycling, see <http://www.zendergroup.org/recycling.htm> .

For more information about balers, see <http://www.zendergroup.org/baler.html> .

Calendar of Events and Deadlines

DATE	EVENT/TRAINING	LOCATION	MORE INFO
Apr 10-12, 2012	Climate Change Vulnerability	Phoenix, AZ	http://training.fws.gov/CSP/Resources/climate_change/vulnerability.html
Apr 15, 2012	Alaska Native Youth Conservation Crew Training		Contact Jillian Morrissey at jmorrissey@thesca.org or 907.715.2381
Apr 10-14, 2012	Marine Science Workshop	Seldovia, AK	Michael Opheim, 435-3247 or mopheim@svt.org
Apr 16, 2012	AVCP GIS Training	Bethel	Contact: Steve Street, sstreet@avcp.org
Apr 16 - 18 2012	Rural Alaska Landfill Operators Training (RALO)	Anchorage	Contact Emily Kloc, Zender Envr, 444-4711
Apr 19-20, 2012	4 th Annual Business of Clean Energy in Alaska Conference	Anchorage	http://bceaconference.com/
Apr 30-May 4, 2012	Tribal Leaders Summit	Grand Ronde, OR	http://www.grandronde.org/tls/
May 15-17, Jun 5-7, Aug 15-17 2012	ANTHC 7 Generations Training	Bethel, Fort Yukon, Nome	Contact Desirae Roehl, ANTHC, 729- 3496
May 8-10, 2012	National Tribal Healthy Homes & Energy Efficiency Conference	Sault Ste. Marie, MI	http://www.itcmi.org/news-events/news/national-tribal-healthy-homes-energy-efficiency-conference
Late Spring	Solid Waste Management Planning	Anchorage	Contact Kim Govig, Zender Environmental, 717-4754
Jun 5-7, 2012	ITEP Climate Change Adaptation Planning course	Green Bay, WI	http://www4.nau.edu/itep/climatechange/

For more details of the events/trainings listed here, and for additional trainings, events, and funding announcements, go to: http://www.zendergroup.org/docs/Calendar_Mar_2012.doc .

FUNDING ANNOUNCEMENTS & DEADLINES
Rasmuson Foundation Deadline: Proposals accepted throughout the year http://www.rasmuson.org/index.php
Hazardous Fuels Woody Biomass Utilization Grant Deadline: Mar 31, 2012 http://www.fpl.fs.fed.us/research/units/tmu/tmugrants.shtml
EPA Wetlands Program Development Grants Deadline: Apr 9, 2012 http://yosemite.epa.gov/R10/ECOCOMM.NSF/webpage/wetland+grants
HUD Choice Neighborhood Implementation Deadline: Apr 10, 2012 http://www07.grants.gov/search/search.do;jsessionid=bC83P0PcGjymv1xT9ypHs732mRygiTMnFC7bxbgh2MKVH1JTjwpb!545677704?oppld=137313&mode=VIEW
EPA Source Reduction Assistance Grant Deadline: Apr 10, 2012 http://www.epa.gov/p2/pubs/grants/srap/srap12.pdf
EPA Pollution Prevention Grant Deadline: Apr 24, 2012 http://www.epa.gov/p2/pubs/grants/ppis/2012/rfp2grant.pdf
EPA Regional Indoor Environments: Reducing Public Exposure to Indoor Pollutants Deadline: Apr 12, 2012 www.epa.gov/air/grants_funding.html

Solid Waste & Environmental Justice Update



The 2nd Tribal Environmental Justice (EJ) Summit on Solid Waste was held at AFE in February. This effort was supported by a USEPA Small

Environmental Justice Grant to facilitate Alaska Tribal development of a "Roadmap" to Solid Waste EJ. A Taskforce of Tribal members throughout Alaska will be reviewing and compiling Tribal input from the two summits. Tribal voices from the 1st summit are at:

<http://www.zendergroup.org/ej.html>

Contact Jaqueline Shirley jshirley@zendergroup.org, 952-9973 for details.

! FREE ! Water Resource Technician Training and 1-Year Tribal Employment

Is your tribe interested in developing a water resources program? This is an opportunity to train someone for free, and then hire them with the free one-year entry-level salary that is included. This is not for IGAP staff, but funds a separate tribal job. Training is in Tucson, Arizona from July 8 to August 3. Graduates work as a water resources technician. **Applications are due by April 20.** Email Mohammad.Baloch@bia.gov, (202) 208 – 6042, for more information and an application packet.



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The mission of Zender Environmental Health and Research Group, a non-profit 501(c)3 organization, is to assist underserved communities in developing programmatic capacity and community resiliency in environmental health issues. Visit us on the web at www.zendergroup.org

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