



SOLID WASTE PROGRAM DEVELOPMENT

By: Trisha Bower

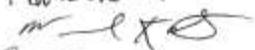
Facilitated By: Melinna Faw

What can you do with your GAP money?Almost anything!

- Trainings in your village
- Cleanups
- Safety gear for operator
- Collection equipment
- Hiring waste technicians and operators
- Backhaul supplies
- Backhaul of scrap metal/hazardous wastes
- Computer and office equipment that slow you down
- Council training, quickbooks training
- Water and soil sampling training and monitoring of landfill
- Grant writing for a new landfill
- Burnboxes
- Train and hire residents for building sheds, cleaning up landfill, operating heavy equipment, welding a burnbox!

Quick Examples

Council Meetings

Name	Org
Analina Shannon	Kawerak Environment
Trisha Bower	ADEC - Solid Waste Progra
Rebecca Colvin	ADEC - Solid Waste Program
Morris Neshoanuk Sr.	City Council, Mayor
Brent Pete	City Clerk
Maglene Kattenek	City Council
Athenasia Fox	City Council
Marcin M	SCA President
	COO SMC
BOB BLANKENBURG	ADEC - SOLID WASTE PROGRAM
Pete Marley	IRA Council
Allen M. Atchakew	FRA Council
Stacy Matthews	SCA EPA/ISAP Coordinator
Jolene Steve-Pete	SCA EPA ASST.
Gregory Mike	City Worker
Lisa M Lockwood	SCA Council
Jean Ferris	SCA Council
Thomas Kirle	SCA IRA Council
John Hunt	Resident

- Empower Your Leaders to Help You
- Invite all the stakeholders if you can
- If you don't know how to start, ask for help!
- Tips:
 - Find a landfill near you like yours that is doing well
 - Use it as a starting point for discussion. For Stebbins, we used St. Michael as a model.

Community Meetings



Teller Sign-In Sheet

Tom Abbot	Janice Gove
Ben Abbot	Kevin Gove
Tom Abbot	Michelle
Ronald Kinnaird	Michelle Gove
Janette Mansel	Ken Thomas
Erin Kussak	Alvin Thomas
Al Bink	Owen Mansel
Eric Ogilvie	Dolly Kinnaird
Lu Foy	John Wynn
Phyllis	Carlson Dingwood
Pam Abbot	
Stephen Abbot	
Janie Abbot	
McCabe Abbot	
Timara Abbot	
Riley Abbot	
Wendy Abbot	
Tracey Abbot	
Paul Abbot	
Erin Abbot	
Erin Abbot	

Attend Trainings and Conferences



- Cynthia Allen with ONC leading workgroups on setting up a recycling program at ATCEM.
- Lots of ideas and networking happens at trainings.

Ask Your Peers for Advice: You Have Rural Experts Who Want to Help You!



Peter Olson Receiving a Recognition of Service Award for 36 Years as Golovin's LO



Patti Salmon being photographed by her Project Officer after receiving the Esteemed Presenter award at ATCEM

Review Available Resources for Ideas

Teller Landfill 2019 and 2020 Punch List	
	<p>The Contractor agreed to use the large excavator to help out at the landfill. They also said you were going to get to pick two pieces of equipment to keep. Do not let either of these opportunities pass. The excavator should be used to dig a hole to put the non-valuable metal into. It should be crushed and then buried. Then a new trench for trash should be dug, for use with the new Tok burn unit that the City should get in summer of 2019.</p>
	<p>All of this needs to be consolidated, crushed, and buried. It should take 5-10 days to get the landfill looking brand new with the heavy equipment you have available.</p>

ADEC Inspection Reports and Punch Lists

A to Z Subject Index

Yugtun Qantuukut, ikaayuryukuuvet qayaagauqina. 444-1197 or eagnus@zendergroup.org Do you need other Native language assistance to understand our services or materials? Email LEP@zendergroup.org

[Air Quality](#)
[Alaska Solid Waste Workgroup](#)
[Antifreeze](#)
[Asbestos](#)

[Backhaul](#)
[Balers](#)
[Batteries](#)
[Burnboxes](#)
[Burning Wastes](#)

[Cars \(recycling junk cars\)](#)
[Cleanup](#)
[Climate change resources](#)
[Closing your dump/landfill](#)- CCTHITA - A Guide to Closing Solid Waste Disposal Sites in Alaska Villages
[Collection - Starting a collection program, setting up user fees](#)
[Collection carts/trailers](#)
[Community Cleanups](#)

Zender Environmental A to Z Factsheets

ANTHC = Alaska Native Tribal Health Consortium

EPA IGAP = Environmental Protection Agency Indian General Assistance Program

New Landfill Construction and Old Dump Closure = ANTHC Clean Water Act Funding = ANTHC Project Manager Bryan Sanford → Hired Project Manager to oversee BIA Road Project + LF Projects

EPA IGAP: Annual

grant of \$28,000 to do capacity building in Air, water, climate change, and solid waste. Implementation is only allowed for solid waste activities.

Most of the grant goes to salaries and indirect costs (payment to CVC for office space etc) 30k goes toward Landfill Operator

Legislative Appropriation: \$150,000 to Supplement the ANTHC Clean Water Funding to build the new landfill and close the old dump

BIA Roads Funding that is paying for the road to the new landfill

Recent IGAP Funded Projects

- Backhauled 60,000 lbs of metal + hazardous materials
- Built Recycling Center
- Ordered 62,000 worth of signs
- Surveyed the new landfill site
- Bought fencing for old and new landfills
- Closed sections of the old landfill
- Bought trash cages
- Bought Tok enclosed burn unit
- Hired Chelyston's First Landfill operator
- Bought Smart Ash burner - Bought materials for a East spill
- Contracted NRC to assess fluids
- Hired Laborers for cleanup projects

What Have Your Neighbors Done?

What Can You Do?



Chemicals Analysis



DRUM INVENTORY LIST

Customer: Chalkyitsik
Project Number: 126131

Inventory Items:
235

Drum	Description	Content Volume (Gallons)	Ratios
1	Glycol, rags ✓	5	
2	Oily water	4	
3	Oily water	2	1 gallon oil/1 gallon water
4	Rags, water	2	
5	Rags, water	3	
6	Glycol, oil	2	
7	Rags, oil filters, debris	4	
8	Oil filters, rags	4	
9	Garbage, oil filters	4	
10	Water, garbage, oil film on top	5	
11	Oil	3	

Pull
Pull
Pull
Pull

Clean-Ups- 52K Example



Scrap Metal Backhaul

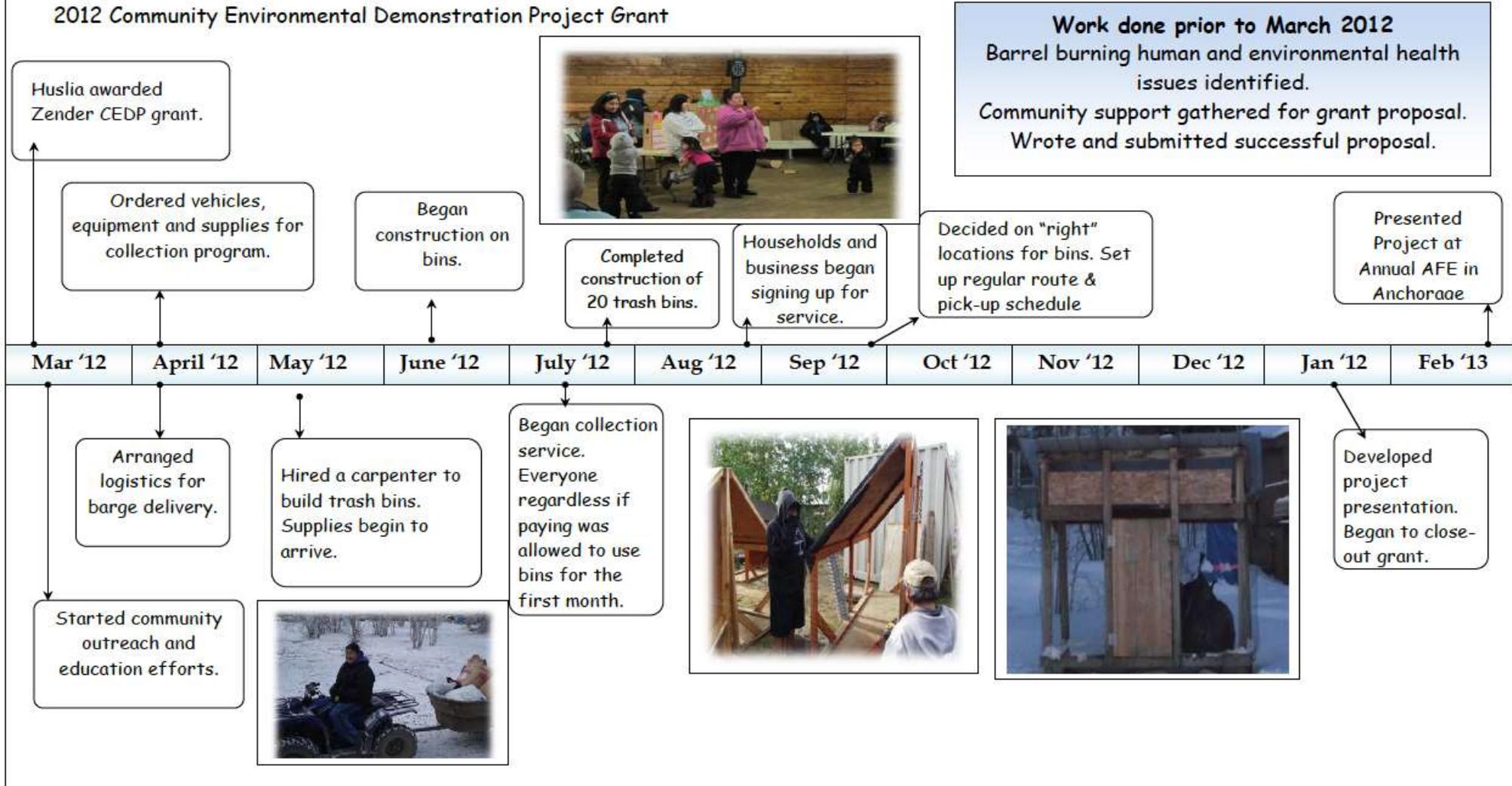


- Brevig Mission Backhauled 100,000lbs of scrap metal for \$25,580.00. Took two weeks.
- This is a picture of them presenting on their project at AFE.
- Since then, 6 other Bering Straits villages have replicated their project.

Great project ideas: <http://www.zendergroup.org/cedp.html>

Project Timeline

2012 Community Environmental Demonstration Project Grant



Trainings In House





Stebbins

Community Spotlight



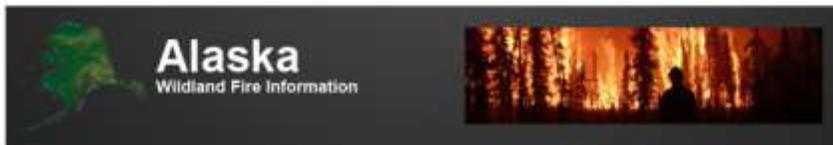
Project Spotlight: The Trigger

Wildfire Starts in Stebbins After Blaze Escapes Community Dump

By Davis Hovey (<http://www.knom.org/wp/blog/author/dhovey/>) | June 20, 2017 | 0
(<http://www.knom.org/wp/blog/2017/06/20/wildfire-starts-in-stebbins-after-blaze-escapes-community-dump/#respond>)



2018



Stebbins Dump Fire (#280) – 25 acres, an increase of 15 acres, outside of Stebbins, human caused on June 26. Smokejumpers contained the fire and were demobilized Thursday. The fire is now in monitor status.

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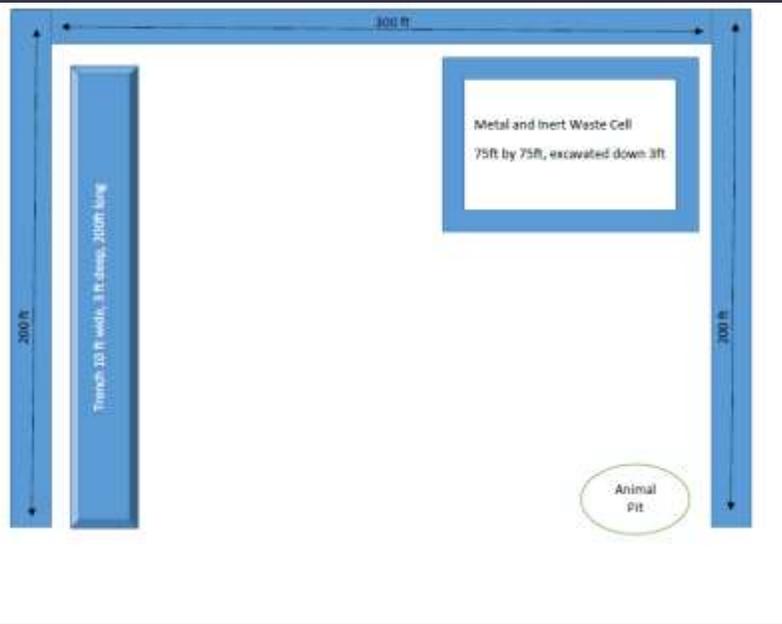
32K Example



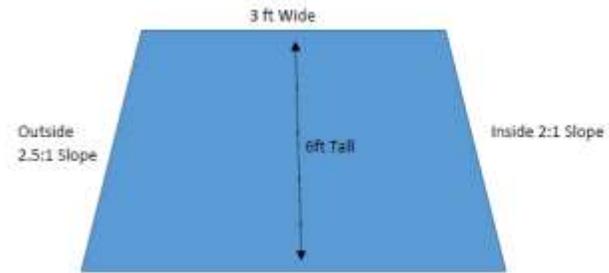
This landfill is projected to last for 20 years. However, with this design, when it is beginning to get full, there will be the option to extend the berms out towards where the landfill is now and just continue into the future with this design scheme. The current landfill will be flat ground after the clean-up.

There can be up to 30 trenches. The final trenches will run into the inert waste area and animal pits.

The animal pits should continue towards the inert waste cell. When one animal pit gets full, close it out and dig another one right behind it. Keep a container of lime and a shovel next to the pit. Leave the dirt that was made digging the pit right next to it so it can be used to cover the limed animals.



Berm Cross Section



The bottom of the berm will probably vary depending on whether or not there is metal inside of the berm or not. The bottom width should be around 12 ft wide. The more gradual slope the outside has, the better it will be at closure.



This is what about 200ft of the berm will look like with the crushed vehicles and other loose scrap metal inside.

Stebbins Budget

The overall landfill cleanup and berm creation will take 80 hours of work for a crew of 4 guys. This estimate is based on Arctic Village and Ft. Yukon projects. These will all be Heavy Equipment Operators. At \$24 an hour that will cost \$7,680 in labor costs. If all of the pieces of heavy equipment are left at the project site and are running for the entire 80 hours, it will have a fuel cost of \$15,120.

Creation of the burn units usually costs around \$5,000 per Peter Olson in Golovin. This includes moving the tanks, getting it welded, and then setting it up. This cost also includes bringing Peter Olson in to help with this project, if no one in the community feels comfortable welding the tank. We include Peter's cost in this because Koyuk and Shaktolik both were unable to move forward without help from Peter.

That brings the total cost for the project to:

Burn Unit	\$5,000
Fuel Costs for Gravel	\$1559.25
Fuel Cost for Clean-up	\$15,120
Operator Costs for Berm	\$2,376
Operator Costs for Clean-Up	\$7,680
Total	\$31,735.25*

*This is only an estimate. If you have someone that can weld and cut the burn unit, there will be cost savings. If your Operator rate is less than \$24 per hour, those costs will also decrease. The heavy equipment also often does not run for the entire project, so there will most likely be some cost savings due to a decreased use of fuel for the project. With this budget, the project can be completed this fiscal year. Also, with the new shipment, diesel fuel is closer to \$4.75 a gallon, and if that holds true throughout the life of this project, there will be substantial cost savings in fuel costs.

Who Did The Work With Tia



Morris Nashoanuk SR. and Gregory "Aaqtii" Mike

2018



2019



2019











All Done In House



Entrance 2018 to 2019



What You See After the Entrance



What You See When You Look Right



2018: Full Field Span in the Back



2019

Full Field Span in the
Back





08 29 2018

2019



How Did We Do This: Detail

- Fire in 2018 sparked targeted technical assistance from DEC on landfill improvements.
- FY19 IGAP Budget and Workplan included a cleanup project and a scrap metal backhaul.
- Fire in 2019. Triggered Stebbins and St. Michael as ADEC USDA visit. Important: We already had the funding in the FY19 IGAP grant to address the issue.
- All Council/Entity Meeting with ADEC and Kawerak to develop detailed plan on landfill cleanup.
- ADEC assisted IGAP Coordinator with turning the meeting decisions into a detailed workplan for the project. Developed a real budget and project scope.
- IGAP Turnover in Week 2 of project, lead to Tia being helped early by Trish & Anahma
- Tia became essential as she coordinated with the City & Tribe. She sent photos of the project throughout the project.
- ADEC completed a follow-up inspection in 2019. The landfill was not even recognizable it had been cleaned up so much.
- Tia invited to present at ATCEM. Tia received an award at ATCEM 😊

Believe it or not- Your Projects Can Spark Continued Improvement 😊

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Regular Meeting

November 08, 2018

Call to Order

Roll Call

Adoption of Agenda

Approval of Minutes for 10/11/2018; 10/26/2018

Department Reports:

Admin, Public Safety, Water Department, City Equipment, Sanitation, Bingo, AVEC report,
Establishment of the Utility Board

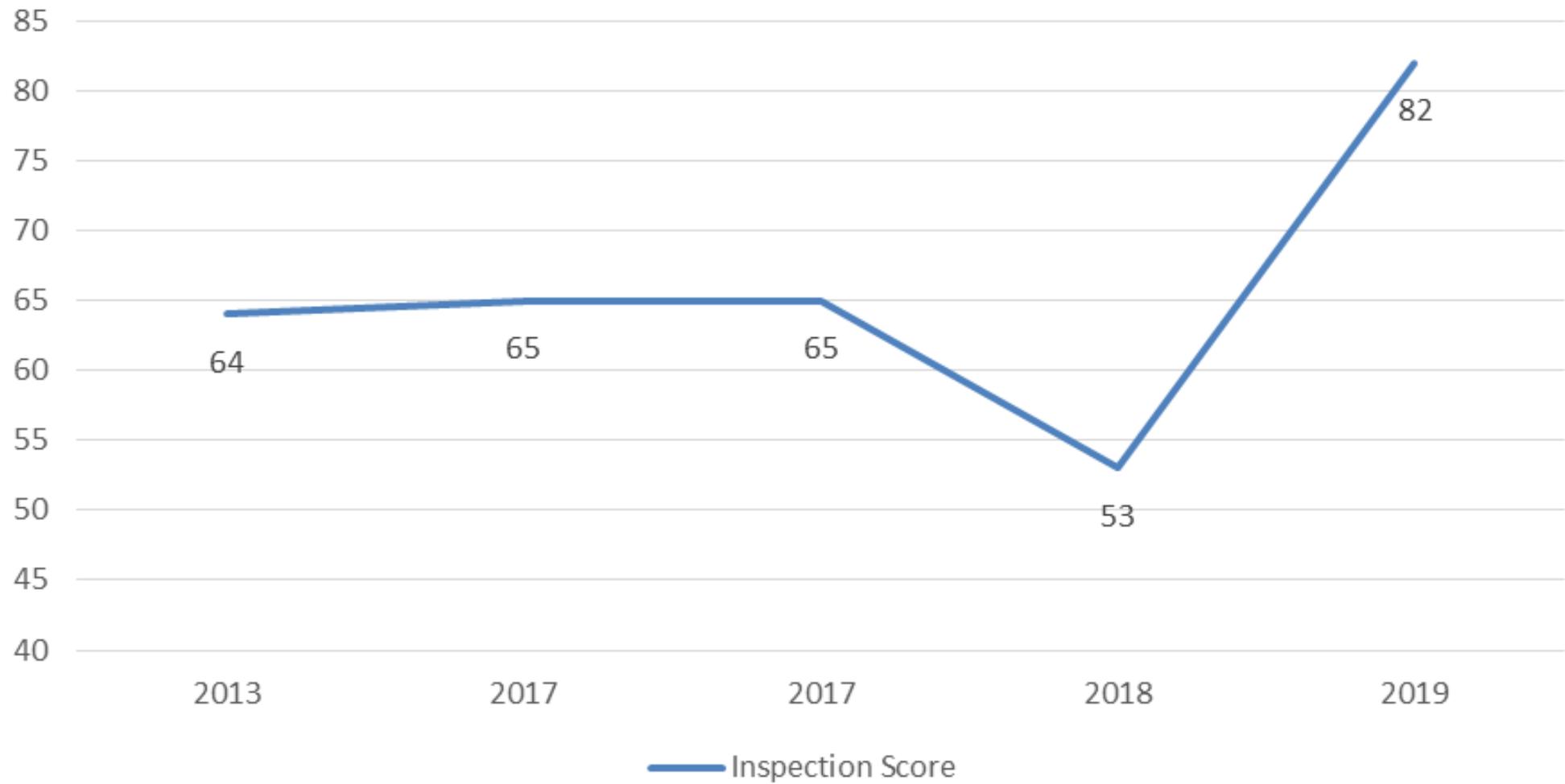
Equipment- Kobota is pouring out hydraulic fluid no easy way to fix and parts are hard to get. 13 bins soon to arrive with an addition of 7 bins are still good condition. Excavator currently being used at land fill all fittings greased as well.

Sanitation- 5 burn units are available at the landfill. Recommendations for two Honda Rubicons and new cart for bins. Two people to work in tandem with two 4-wheelers to dump bins at 2/3rds full. Two tank are to made into burn units. Burn unit signs are needed at landfill. Vern Milligrock and George Dan hired to clean up trash at landfill.

Tia receiving the Rapid Response award
for the City & Tribe of Stebbins. There
were two of these, one for each entity.
Kawerak Award Luncheon 2019



Total Inspection Score By Year



Solid Waste Activity

Mentor Session Activity

After listening to the presenters during this session share supplies, steps, safety precautions, snags, and community outreach solutions, you will have 10 minutes to fill out the below questions. You may work alone or with others at your table. Presenters will call on participants to share their answers. This information will be shared with the entire GAP Network in the form of SAMPLE workplan components that everyone can work with later this week! You may hold on to your finished pages and be sure to bring them with you for each following session of the workshop so that you may build upon your ideas.

1. Please write one workplan Component that could be implemented in your community based on what you heard today in THIS session:

Component 1:

Commitment 1.1:

How do you decide what to do?...Health!

- Are there safety issues for your operator/technicians (**fix it – they are your frontline**). What/where are the greatest health risks for the community?
- Which serious issues, if any, need immediate attention, which issues can wait, and which issues are serious in the future that you need to work on in the background?
- Does the community understand which issues affect their health the most? (They need to if you need them to help fix it)
- Which issues are of greatest concern to the community?

What Are Your Ideas? Tell Us!