# 2022 Program Highlights KATTERY





# Introduction

The Backhaul Alaska Program (BAP) is a statewide backhaul program developed and overseen by the Solid Waste Alaska Taskforce (SWAT). SWAT serves as the BAP executive committee and is comprised of representatives from AK DEC Solid Waste Program, ANTHC, Kawerak, and Zender Environmental. The ultimate goal of the Program is to establish a statewide backhaul framework allowing all Alaskan communities to efficiently and affordably backhaul harmful and potentially hazardous waste streams. Currently, the Program assists with rural communities' backhaul activities by providing training, supplies, technical & logistics support, onsite assistance, and sponsoring shipping & recycling services.

# Background

The BAP Pilot Program was conducted in 2 phases spanning 2018-2021. During the pilot phases, BAP worked with rural communities to inventory, collect, package, and ship hard-to-manage materials in various regions throughout Alaska. The materials targeted by the Program for backhaul during the Pilot phases included escrap, Universal Waste (UW) lamps, and lead acid batteries. Some materials outside these categories were backhauled, but this was done on a case-by-case and space available basis.

BAP worked with 11 communities during the 1<sup>st</sup> Pilot Phase (2018-2019), and an additional 17 during the 2<sup>nd</sup> Pilot Phase (2019-2021). In conducting the Pilot Phases, the BAP looked to evaluate the needs, obstacles, and costs relevant to backhaul efforts at local, regional, and statewide level. Pilot communities were selected based on how well their circumstances can help "test" the program. Please refer to *Appendix A & B* to view maps of BAP regions and the Pilot Communities.

The Program funded shipments from 23 communities resulting in the backhaul of roughly 280,000lbs of recyclable material during the pilot period. The 4 communities unable to ship during the Pilot phase subsequently did so in 2022.

After concluding the 4-year Pilot program, the BAP began its *Initial Implementation* phase January 1<sup>st</sup> of 2022. All communities that participated in the Pilot Program carried over as enrolled "Backhaul AK communities." BAP plans on funding backhaul shipments from enrolled communities on 1-3 year cycles. Further, the Program aims to help develop more "hub & spoke" networks with regional partners where outlying communities can ship material to a hub for consolidation, which subsequently gets backhauled to recyclers once a full shipment is ready.

# **Program Partnerships**

# **REGIONAL BACKHAUL PARTNERSHIPS**

The BAP maintains a close partnership with organizations that help facilitate backhaul activities on a regional level. Each organization provides a point-of-contact to act as a "Regional Coordinator" for



the BAP. Regional coordinators act as liaisons between the Program and communities within their regions. Regional coordinators duties include:

- Helping to coordinate backhaul activities & shipments
- Performing site visits to evaluate readiness, train local staff, and assist in backhaul activities
- Providing communities with technical assistance and backhaul needs & activities, as necessary
- Regularly reporting the backhaul activities and status to the BAP
- Participating in monthly regional coordinator meetings

As of the end of the 2022 calendar year, the following organizations provide BAP with regional coordinators:

- Aleutians Qawalangin Tribe of Unalaska (Q-tribe)
- Bristol Bay/Lake & Penn Bristol Bay Area Health Corp (BBAHC)
- Norton Sound Kawerak, Inc.
- Interior Green Star of Interior Alaska
- Kodiak Kodiak Area Native Association
- Y-K Delta Zender Environmental

Beyond the regional coordinators listed above, additional coordination assistance has been provided by Maniilaq Association, Copper River Native Association (CRNA), and Alaska Gateway School District.

# **BUSINESS PARTNERSHIPS**

Major program contributions were received from Matson, the Responsible Battery Coalition (RBC), Metro Metals Northwest (Metro), and Total Reclaim during both the Pilot Program and in 2022.

### Matson

During the final year of the Pilot Program period (2021), Backhaul Alaska entered a partnership with the Matson Caring for Alaska Program. Matson's Caring for Alaska Program provided the BAP with the following:

- 1 Kodiak freight donation 40ft container
- 1 Unalaska freight donation 40ft container
- Event signs and banners for Kodiak & Unalaska
- Hi-vis vests for collection event workers
- \$4,000 in funds for collection event supplies, packaging materials, and PPE (\$2,000 for each community).

The Matson donations allowed the BAP to host public collection recycling events targeting escrap, lead acid batteries, and fluorescent lamps in Unalaska and Kodiak. The events resulted in the backhaul and recycling of roughly 38,000 lbs of material.

In 2022, Matson's Caring for Alaska Program provided the BAP with additional freight donations. These donations were utilized by the BAP in the following manner:



- 2 Kodiak freight donations 40ft containers
- 3 Unalaska freight donations 40ft containers
- 4 Port of Anchorage freight donations 40ft containers
  - o 1 utilized in Northway, AK
  - o 1 utilized in Glennallen, AK
  - o 1 utilized in Tok, AK
  - 1 utilized in conjunction with AK Air Cargo donation shipping between Nome & Anchorage.
- Additional event signs
- Additional hi-vis vests for collection event workers

Nearly 197,000 lbs of recyclables were backhaul through Matson freight donations in 2022.

## <u>RBC</u>

RBC is a nonprofit coalition of companies committed to the responsible management of end-of-life batteries. The coalition is comprised of battery manufacturers, retailers, and recyclers. The partnership between the BAP and RBC initiated during the Pilot Program and strengthened ever since. Currently RBC provides the following:

- Donated shipping from Kodiak, Seattle, & Tacoma (pickup service)
- Donated lead acid battery packaging kits (roughly 100 total)
- Facilitating recycling services from responsible and trusted battery processors
- Providing donations based off the core value of lead acid batteries received by RBC partners
- Ongoing logistical and technical assistance

### <u>Metro</u>

Metro is one of the largest escrap processors in the Pacific Northwest and has been a BAP vendor and partner since the Pilot Program. Relevant to their escrap processing operation, Metro holds current R2, ISO14001, and ISO45001 certificates. Beyond recycling services for escrap, appliances, and scrap metal, Metro provides additional support including, but not limited to the following:

- Feedback on BAP shipping and packaging practices
- Assisting with supply purchases & shipments,
- Participating in BAP trainings,
- Forwarding of other recyclable materials to appropriate vendors,
- Donated trucking services,
- Providing logistical & technical support, and
- Hosting BAP staff and allowing tours at the Metro Tacoma and Vancouver, WA facilities.

### Total Reclaim

Total Reclaim (TRI) is a recycler of escrap, refrigerant, batteries, UW lamps, and mercury bearing devices. TRI has been a partner since the development stage of the BAP. Beyond recycling services, TRI has provided BAP with the following:



- Assisting with supply purchases & shipments,
- Donations of drums, labels, pallets, and other packaging supplies,
- Providing free facilities for BAP backhaul, HazMat, and refrigerant recovery trainings,
- Participating in BAP trainings, and
- Ongoing technical assistance.

# **ADDITIONAL PROGRAM SUPPORTERS**

The BAP has benefited from the ongoing support of a wide range of organizations including financial support from the Environmental Protection Agency (EPA), the Bureau of Indian Affairs (BIA), US Dept. of Transportation PHSMA, US Dept of Agriculture RUS, and the Denali Commission.

Ongoing Program support is received by AK DEC Solid Waste Program, ANTHC, Kawerak, and Zender Environmental. Many other companies, organizations, and groups have supported Program efforts in various aspects.



# Summary of 2022 Backhaul & Recycling Activities

# **COMMUNITIES SERVED IN 2022**

*Appendix C & D* displays a map and list of communities the BAP worked with in 2022. Communities included original Pilot communities that were ready to backhaul through the program again, hub communities capable of consolidating materials from outlying communities, and communities new to the BAP Program.

Focus of the Backhaul Alaska Program in 2022 included (but was not limited to):

- Further developing and utilizing regional hubs in attempt to establish long term backhaul services
- Utilizing Matson freight donations to provide recycling opportunities in underserved areas along the northern road system (i.e. road system north of Anchorage).
- Exploring the feasibility of establishing "mini hubs" along the lower Yukon River.

BAP services were offered, either directly or indirectly (through regional backhaul programs or collection events), to 57 communities in 2022. To date, BAP has been able to offer backhaul services in 73 communities.

# **SUPPLIES**

Backhaul packaging and safety supplies are offered to all newly enrolled communities. The standard BAP supply kit includes the following materials:

PPE	QTY	Packaging Materials	<u>QTY</u>
Safety Glasses	10	Vermiculite (or equivalent)	1
Work Gloves (Medium & Large)	6	Stretch Wrap (Box of 4 Rolls)	1
Chemical Gloves (Medium & Large)	6	Tape Gun	1
Chemical Apron	3	Packaging Tape (3 Rolls)	1
First Aid Kit	1	Banding Kit – Banding	1
Splash Goggles	3	Banding Kit – Tensioner	1
Nytrile Gloves (Box of 100)	2	Banding Kit – Banding Clips	1
Labels	<u>QTY</u>	Fish Tote (when available)	1
#8 Corrosive Labels (Roll of 500)	1	Fluorescent lamp boxes (as needed)	-
UW Labels (Pack of 200)	1	Drums (as needed)	-
Materials for Recycle Labels (25)	1	Pallet Jack (as needed)	-
Backhaul Alaska Stickers (25)	1	Lead Acid Battery Packaging Kits (aka	-
#8 Corrosive Placards (pack of 25)	1	"Core Kits" - provided by RBC, as	
		needed)	

Additional supplies may be provided upon request and Program approval.

Further, "hub" supplies were shipped to Regional Coordinators. Regional Coordinators provided lists of supplies needed for both onsite receiving and consolidation of backhaul materials as well as distribution to communities within their region.



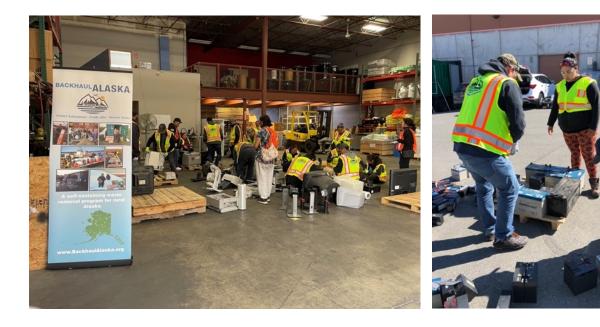
Previously enrolled communities received supply shipments during the Pilot Program. Communities needing additional supplies were served either through the hub supplies provided to Regional Coordinators or by directly requesting from the Program.

## **TRAINING**

Since its inception, the BAP has provided trainings covering backhaul best practices, safety, and HazMat Regulations. Any community shipping using BAP funds must have at least 1 staff person complete BAP training. BAP trainings are also open to communities outside the Program.

The Backhaul Alaska Program staff provided 5 Backhaul and HazMat Regulation (HMR) training opportunities in 2022. A total of 76 participants were trained representing 43 Alaskan communities. Below is a summary of training efforts:

	2022 Backhaul and HazMat Regulation Trainings									
Date	Date Training									
Mar 1-3	Virtual – Backhaul & HMR Training	20								
Apr 19-26	Rural AK Community Environmental Job Training	7								
Jun 14-17	Anchorage – Backhaul & HMR Training	24								
Aug 23-25	Bethel – Backhaul & HMR Training	15								
Sep 19-21	Kodiak – Backhaul & HMR Training (in partnership with KANA)	10								
	Total Trainees	76								





The table below displays which communities participated in BAP trainings in 2022.

Backhaul & HazMat Regulation Training Participar	Its
by AK Community	

ALEUTIANS		NW ARCTIC	
Atka	1	Selawik	1
Nelson Lagoon	1	Regional Total	1
Unalaska	1	SOUTHEAST	
Regional Total	3	Klawock	1
<b>BRISTOL BAY - LAKE &amp;</b>	PENN	Regional Total	1
Dilligham	1	ROAD SYSTEM	
Manokotak	1	Tetlin	1
New Stuyahok	2	Regional Total	1
Newhalen	2	Y-K DELTA	
Nondalton	1	Akiak	5
Ugashik	2	Bethel	1
Regional Total	9	Chalkyitsik	1
INTERIOR		Chefornak	3
Fort Yukon	1	Hooper Bay	3
Holy Cross	2	Kipnuk	2
Regional Total	3	Kongiganak	1
KODIAK		Kotlik	2
Akhiok	1	Lower Kalskag	1
Karluk	1	Marshall	1
Larsen Bay	2	Nightmute	4
Old Harbor	4	Pilot Station	2
Ouzinkie	3	Pitkas Point	2
Port Lions	3	Quinhagak	2
Regional Total	14	Russian Mission	3
Norton Sound		Toksook Bay	2
Brevig Mission	1	Tuntutuliak	1
Nome	2	Regional Total	36
Savoonga	2		
Shaktoolik	2		
Wales	1		
Regional Total	8		
		Total Trainees	76



# SITE VISITS

The BAP performs site visits to select communities throughout the backhaul season. Site visits may be conducted by BAP staff or Regional Coordinators. Frequently, regional coordinators are traveling to communities for other work-related reasons and use their organization's funds to conduct site visits.

In general, BAP community site visits are conducted to assess, document, and assist with the following:

- Determining current status of backhaul activities,
- Obtaining and/or confirming communities' inventory of program materials,
- Assessing community capacity and means of collection & storage,
- Ensuring necessary labels, supplies, and PPE are available,
- Assisting in collection & packaging of program materials, as necessary,
- Providing additional training (including elements of the DOT HMR training) for those performing BAP activities, if needed, and
- Providing guidance and technical assistance to ensure completion of backhaul activities, as needed.

The table below provides a summary of 2022 site visits conducted by BAP staff and Regional Coordinators:

Date	Community	BAP Coordinator Present
3/14/22	Larsen Bay	Andie Wall (Regional Coordinator)
4/4/22	Karluk	Andie Wall (Regional Coordinator)
		Stephanie Mason (Statewide Coordinator)
4/19/22	New Stuyahok	Melany Eakin (Regional Coordinator)
4/12/22	Port Lions	Andie Wall (Regional Coordinator)
5/16/22	Mountain Village	Reilly Kosinski (Statewide Coordinator)
5/17/22	Pitka's Point	Reilly Kosinski (Statewide Coordinator)
5/17/22	Saint Mary's	Reilly Kosinski (Statewide Coordinator)
5/18/22	Marshall	Reilly Kosinski (Statewide Coordinator)
5/23/22	Dillingham	Reilly Kosinski (Statewide Coordinator)
		Melany Eakin (Regional Coordinator)
6/1/22	Nome	Stephanie Mason (Statewide Coordinator)
6/7/22	Shaktoolik	Stephanie Mason (Statewide Coordinator)
		Katie Olsen (interim Regional Coordinator)
7/6/22	Hooper Bay	Katherine Brower (Regional Coordinator)
7/14/22	Northway	Reilly Kosinski (Statewide Coordinator)
7/14/22	Tetlin	Reilly Kosinski (Statewide Coordinator)
7/14/22	Tok	Reilly Kosinski (Statewide Coordinator)
7/14/22	Tanacross	Reilly Kosinski (Statewide Coordinator)
7/15/22	Unalaska	Stephanie Mason (Statewide Coordinator)



Date	Community	BAP Coordinator Present
7/24/22	Glennallen	Reilly Kosinski (Statewide Coordinator) Stephanie Mason (Statewide Coordinator)
7/28/22	Ouzinkie	Andie Wall (Regional Coordinator)
8/15/22	Chefornak	Katherine Brower (Regional Coordinator)
8/15/22	Unalaska (follow-up visit)	Stephanie Mason (Statewide Coordinator)
8/18/22	Mountain Village & Pitka's Point (follow-up visit)	Stephanie Mason (Statewide Coordinator)
8/18/22	Larsen Bay	Andie Wall (Regional Coordinator)
9/8/22	Northway (follow-up visit)	Reilly Kosinski (Statewide Coordinator)
9/14/22	Tok (follow-up visit)	Reilly Kosinski (Statewide Coordinator)
11/14/22	Old Harbor	Andie Wall (Regional Coordinator)

Staff turnover is a common occurrence in rural communities, including in BAP communities. Due to new individuals performing Backhaul Alaska activities (either through turnover or additional staff that were unable to attend a BAP training), onsite, training can be provided during site visits. Additionally, those who have attended a virtual or in-person BAP training indicated refresher trainings & hands-on practice was very beneficial, especially in their home setting.

The trainings provided during site visits were tailored to the immediate needs of the community. Often, training included (but was not limited to) the following:

- Best practices in collection and storing program material,
- General packaging guidelines (lead acid batteries, fluorescent lamps, scrap electronics, and in some cases household batteries),
- Proper marking & labeling,
- Material loading & placarding, and
- Completing shipping paperwork.

2022 Site visit reports are created for each BAP site visit. Reports are available upon request for the following communities:

- Chefornak
- Dillingham
- Hooper Bay
- Karluk (part of Kodiak Area report)
- Glennallen
- Larsen Bay (part of Kodiak Area report)
- Mountain Village (initial & follow-up visits)
- Marshall
- Nome
- Northway (part of Tok Area report)

- Old Harbor (part of Kodiak Area report)
- Ouzinkie (part of Kodiak Area report)
- Pitka's Point (initial & follow-up visits)
- Port Lions (part of Kodiak Area report)
- Tetlin (part of Tok Area report)
- Tok (part of Tok Area report)
- Shaktoolik
- St. Mary's
- Unalaska (initial & follow-up visits)



# **HUB DEVELOPMENT**

Using the Kawerak, Inc. Backhaul Program as a model, the BAP has been working with Regional Coordinators and other regional partners to establish collection hubs within various AK regions. BAP hub development efforts in 2022 are summarized below:

- Kodiak
  - KANA has begun collecting and storing incoming escrap, lamps, & batteries from the communities off the road-system.
  - KANA also helps facilitate the packaging and shipping of the collected materials. The Backhaul Alaska Program assisted KANA with obtaining a 40ft storage container (donation from Matson), funds the rental space for the storage container, and assists with coordinating shipments.
  - KANA, BAP, Net-Your-Problem (NYP, a fishing gear recycling company) and a contingent of local fishermen have formally requested additional storage space from the City of Kodiak to facilitate the backhaul of various materials. City response to that request is still pending.

### • Dillingham

- The Curyung Tribe has historically provided community backhaul opportunities in Dillingham. Lack of storage, staff, and reduced funding jeopardized the continuation of their backhaul activities.
- In partnership with the Curyung Tribe, BBAHC, BBNA, Dillingham Friends of the Landfill, and the City of Dillingham, the Backhaul AK Program helped fund the backhaul of the backlog of escrap and fluorescent lamps.
- Moving forward, the Backhaul Alaska Program is working with the Curyung Tribe and BBAHC to purchase storage equipment and space closer to the Port to facilitate the collection, packaging, and shipping of incoming recyclables.
- Collection has expanded to include communities within the greater area such as Aleknagik, Ekwok, New Stuyahok, Koliganek, and Clark's Point. These communities are encouraged to ship recyclables to Dillingham for consolidation with Dillingham materials prior to backhaul.

### • Fairbanks

- Green Star of Interior Alaska (GSIA) has secured a 5-year lease along with a 5-year contract for providing escrap recycling services throughout Fairbanks North Star Borough.
- BAP is working closely with GSIA to secure more covered storage capacity (40ft containers) so received escrap can be staged & storage outside their facility.
- BAP will be assisting GSIA in coordinating recycling shipments from communities along the road system and the Yukon River network.

### • Tok

- Communities within the Tok area indicated that the only other option is to drive material to either Fairbanks or Anchorage. Most communities had multi-year accumulations of escrap, lamps, and batteries in storage.
- BAP held an area-wide collection event in the fall of 2022. Multiple communities participated and there is general interest for another collection event in 2023.



- No local organization has been identified as of yet who can independently organize a collection event or consolidation point within the Tok area.
- BAP may approach the Tok landfill, a privately operated for-profit landfill operated by Burnham Construction, to determine feasibility of collection and staging at the landfill.

### • Glennallen

- CRNA had helped facilitate some escrap recycling convoys prior to 2022. Communities within the Glennallen area would pool resources to drive escrap to Anchorage for recycling.
- The local recycling organization, Recycle Our Areas Resources (ROAR) provides 24hr, unsupervised drop-off for newspaper, plastic bottles, and aluminum cans. Materials are trucked to Glennallen by a local transporter.
- BAP held an area-wide collection event in the summer of 2022. Multiple communities
  participated and great interest for another collection event in 2023. Planning will
  include increased outreach to outlying communities, along with the possibility of CRNA
  picking up material prior to the 2023 event.
- BAP may approach the Glennallen landfill, a privately operated for-profit landfill operated by Copper River Sanitation, to determine feasibility of collection and staging at the landfill.

# **BACKHAUL SHIPMENTS**

The BAP contracted with Waste Management (WM) to act as the Program's "Control Tower" entity. The Control Tower manages the overall movement of Backhaul Alaska material. General responsibilities of the Control Tower entity include:

- Coordinating the logistics of backhaul materials between communities and recycling vendors.
  - Utilizing information provided by BAP staff and Regional Coordinators to determine the most efficient and cost-effective method of transport on local and regional levels.
- Regularly reporting the status of activities to BAP staff and Regional Coordinators.

Waste Management served as the BAP Control Tower until their contract concluded at the 2022 yearend. The BAP, with recommendations from SWAT, decided to perform 2023 Control Tower duties "in-house" utilizing BAP staff. A decision to continue performing Control Tower duties in-house or to contract out the role again will be made after the 2023 backhaul season.

The BAP oversaw the backhaul of the Pilot Program which resulted in the backhaul of over 280,000 lbs. Further details regarding backhauled quantities during the Pilot Program are providing in *Appendix E*.

In 2022, the BAP oversaw the backhaul of roughly 460,000lbs of material. *Appendix F* provides greater detail regarding backhauled quantities and funding sources.

## PACKAGING VALIDATION

In the fall of 2022, the BAP sent a staff member to Washington State to meet with Metro and WM to validate proper packaging, discuss ways the Program can improve current practices, and explore further partnership opportunities.



### Waste Management

In 2021, WM set up a transfer site at their Duwamish location so incoming BAP loads can be:

- Offloaded near barge carriers near the Port of Seattle
- Sorted into like recycling streams (i.e. escrap, lead acid batteries, UW lamps)
- Dispatched, as needed, to BAP recycling vendors.

WM maintains two (2) 20ft containers for temporary storage. One for Lead Acid Batteries (to be picked up by Clarios/RBC) and one for UW lamps (to be transferred to WM's Oregon facility & then forwarded to a lamp recycler). Additionally, Metro provides a 53ft trailer at the site for escrap storage (to be picked up by Metro when full or at the end of the season).

While onsite, BAP staff:

- Received a tour of the facility.
- Discussed packaging by BAP and BAP communities WM staff indicated that overall BAP loads arrived in good shape.
- Inspected material received from earlier shipments (from Ekwok, New Stuyahok, and Dillingham) and confirmed packaging was in compliance with BAP standards.

Note that incoming shipments from AML were delayed due to weather and barge schedule changes – BAP staff were unable to intercept a live load to validate packaging of recently shipped material.

### Metro Metals, NW

BAP staff visited Metro's Tacoma, WA facility. The Tacoma facility acts as a transfer site for their escrap processing facility located in Vancouver, WA. Previously, BAP staff visited the Vancouver facility in 2021. While onsite, BAP staff:

- Received a tour of the facility.
- Discussed supplies for the BAP for 2023:
  - Bulk supply orders can be made for BAP next year through Metro Metals.
  - The best method would be for BAP to review the ULINE online catalog, make a list, and then send to Metro point-of-contact.
  - Metro will invoice BAP for a small handling percentage, and then the items to Anchorage (or other sites, as directed).
- Discussed packaging by BAP and BAP communities:
  - Overall Metro has been impressed BAP loads.
  - Opportunities for improvement include:
    - Pulling big printer cartridges out, boxing them, and notifying Metro Metals about quantity prior to shipment.
    - Using additional torque wrap and banding to further secure pallets.
- Discussed the potential for trucking in WA:
  - Metro Metals is in the process of hiring additional drivers.
  - Hopefully BAP can use Metro for WA trucking next year.
- Metro requested an end-of-year summary and weights for their own reports.



# Kawerak – Alaska Airlines Backhaul Trial

Kawerak approached Alaska Airlines to ask about the possibility of sending backhaul materials to Anchorage via air cargo. Alaska Airlines agreed to backhaul escrap on a trial basis (for free) to see if it can be used for ballast (in lieu of water ballasts) when cargo planes return to Anchorage empty. The trial occurred in mid-November 2022. A summary of the trial is as follows:

- 22 Pallets of Escrap were backhaul on AK Air Cargo for free from Nome to Anchorage
- Material was received in Anchorage by WM and transferred to a 40ft container provided by the Matson Caring for Alaska Program.
- Material was transferred and loaded by Central Recycling Services (CRS)
- Material was shipped via Matson (in-kind freight donation) to Metro Metals in Tacoma, WA for recycling.
- 14,189 lbs of scrap electronics were backhaul thru the trial.
- AK Air Cargo is interested in continuing the program. Plans are being made to begin shipments again in May.
- Arrangements for receiving material and shipping out of Anchorage are currently being planned.

Additional information regarding the trial is provided in Appendix G.

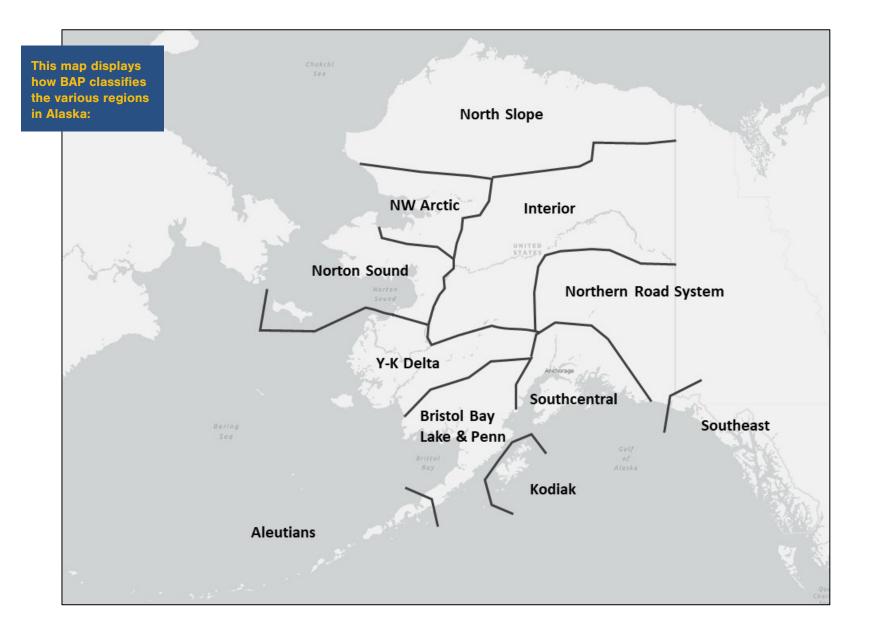
# Appendix

The following can be found within this appendix:

- Appendix A Alaska Map: Backhaul Alaska Regions
- Appendix B Alaska Map: Pilot 1 & 2 Communities
- Appendix C Alaska Map: 2022 Communities/Service Area
- Appendix D Table: 2022 Communities & Service Areas
- Appendix E Table: Pilot 1 & 2 Backhaul Summary
- Appendix F Table: 2022 Backhaul Summary

Appendix G - Select Site Photos

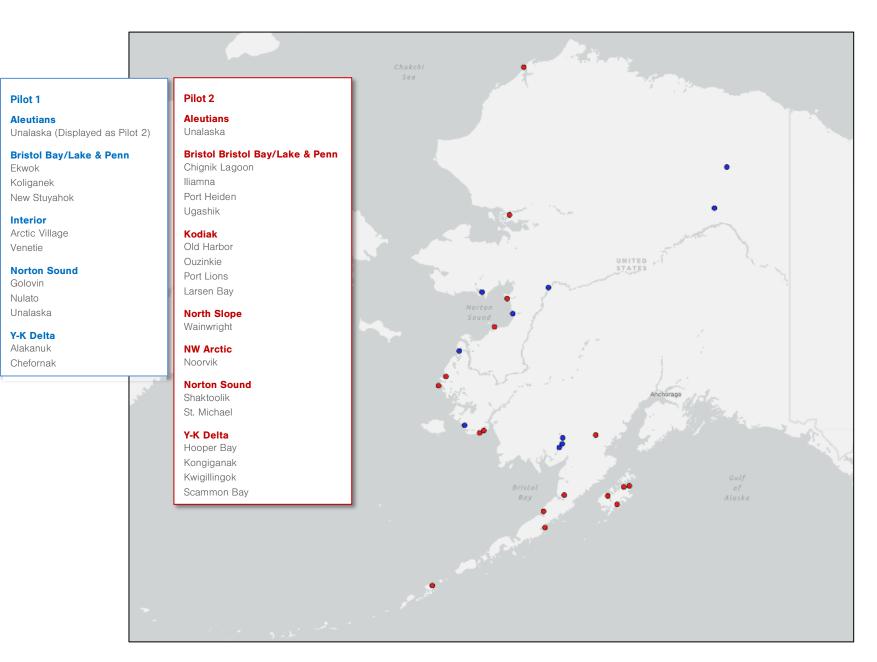




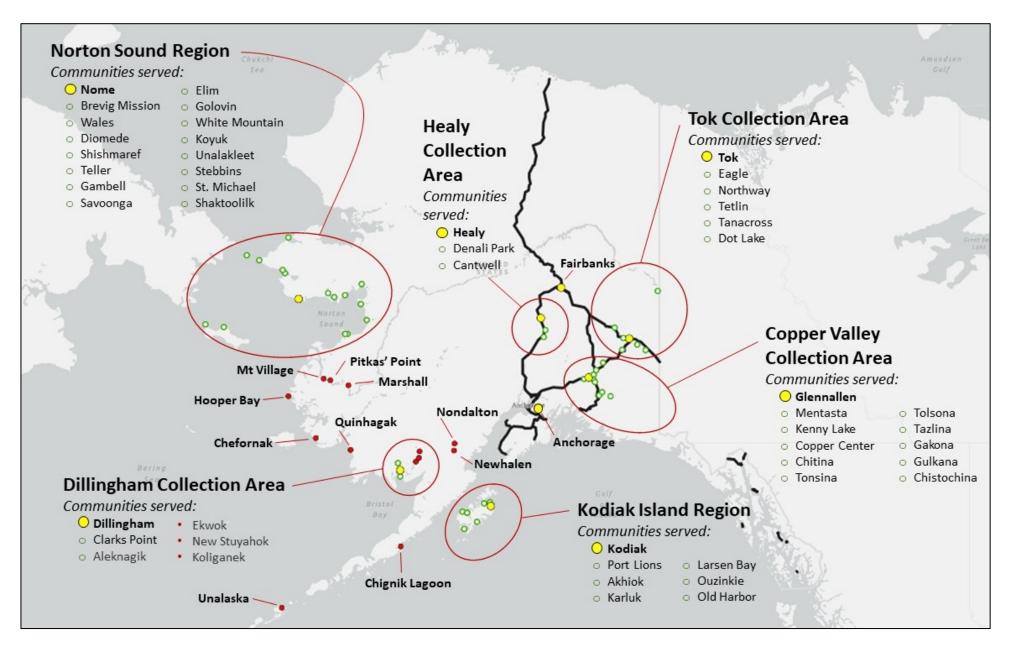


# Backhaul Alaska 2022 Program Highlights

Appendix C – Alaska Map: Pilot 1&2 Communities







The following Table lists communities that had the opportunity to use BAP backhaul resources in 2022.

<u>Region</u>	<u>Community</u>	<u>Status</u>	<u>Region</u>	<u>Community</u>	<u>Status</u>
Aleutians	Unalaska	Pilot/Hub	Road System	Fairbanks	Hub
BBLP	Dillingham	Hub/New		Glennallen	Hub/New
	Chignik	Pilot		Chistochina	Service Area
	Lagoon				
	Ekwok	Pilot		Chitna	Service Area
	Koliganek	Pilot		Copper Center	Service Area
	New Stuyahok	Pilot		Gakona	Service Area
	Newhalen	New		Gulkana	Service Area
	Nondalton	New		Kenny Lake	Service Area
Interior	Holy Cross	New		Mentasta	Service Area
Kodiak	Kodiak	Hub		Tazlina	Service Area
	Akhiok	Umbrella		Tolsona	Service Area
	Karluk	Umbrella		Tonsina	Service Area
	Larsen Bay	Pilot/Umbrella		Healy	Hub/New
	Old Harbor	Pilot/Umbrella		Denali Park	Service Area
	Ouzinkie	Pilot/Umbrella		Cantwell	Service Area
	Port Lions	Pilot/Umbrella		Tok	Hub/New
Norton Sound	Nome	Hub		Dot Lake	Service Area
	Brevig Mission	Umbrella		Eagle	Service Area
	Diomede	Umbrella		Northway	Service Area
	Elim	Umbrella		Tanacross	Service Area
	Gambell	Umbrella		Tetlin	Service Area
	Golovin	Umbrella	Y-K Delta	Chefornak	Pilot
	Koyuk	Umbrella		Hooper Bay	Pilot
	Saint Michael	Umbrella		Marshall	New
	Shaktoolik	Umbrella		Mountain Village	New
	Shishmaref	Umbrella		Pitkas Point	New
	Stebbins	Umbrella		Quinhagak	New
	Teller	Umbrella			
	Wales	Umbrella			
	White	Umbrella			
	Mountain				

### Definitions:

*Pilot* – A community that was originally enrolled during the 2018-2021 Pilot Program.

New – A community that enrolled in 2022.

Hub - A community that acts as a consolidation point or end destination for material managed by BAP.

*Umbrella* – A community that is served by a regional backhaul program run by a BAP partner organization. *Service Area* – A community notified about a BAP collection opportunity at a nearby hub.



# Backhaul Alaska 2022 Program Highlights Appendix E – Pilot 1&2 Backhaul Summarv

Pilot 1	Net Weights in Lbs						
Region	Escrap	Lead Acid	UW Lamps	Grand Total			
Bristol Bay/Lake & Penn	4,115	6,271	100	10,486			
Ekwok	1,650	2,043	100	3,793			
Koliganek	2,465	4,228	-	6,693			
Interior	12,703	4,180	-	16,883			
Arctic Village	6,320	2,465	-	8,785			
Nulato	3,883	-	-	3,883			
Venetie	2,500	1,715	-	4,215			
Norton Sound	9,370	25,279	534	35,183			
Alakanuk	5,032	3,166	105	8,303			
Golovin	2,786	3,919	429	7,134			
Unalakleet	1,552	18,194	-	19,746			
Y-K Delta	745	8,304	317	9,366			
Chefornak	745	8,304	317	9,366			
Grand Total	26,933	44,034	951	71,918			

Pilot 2	Net Weights in Lbs						
Region	Escrap	Lead Acid	UW Lamps	Grand Total			
Aleutians	24,262	-	-	24,262			
Unalaska	24,262	-	-	24,262			
Bristol Bay/Lake & Penn	4,725	25,787	538	31,050			
Iliamna	-	4,215	-	4,215			
Port Heiden	3,334	12,558	283	16,175			
Ugashik	1,391	9,014	255	10,660			
Kodiak	8,785	47,890	964	67,639			
Larsen Bay	5,313	23,640	160	29,113			
Old Harbor	7,065	7,410		14,475			
Ouzinkie	3,012	5,110	190	8,312			
Port Lions	3,395	11,730	614	15,739			
Norton Sound	3,185	11,730	-	14,915			
St. Michael	3,185	11,730	-	14,915			
NW Arctic	4,300	7,620	-	11,920			
Noorvik	4,300	7,620	-	11,920			
Y-K Delta	14,340	17,185	1,598	33,123			
Kongiganak	8,565	5,410	463	14,438			
Kwigillingok	2,730	6,865	455	10,050			
Scammon Bay	3,045	4,910	680	8,635			
North Slope	1,410	23,640	255	25,305			
Wainwright	1,410	23,640	255	25,305			
Grand Total	71,007	133,852	3,355	208,214			

Pilot 1 & 2 Combined	Net Weights in	Lbs		
Region/Community	Escrap	Lead Acid	UW Lamps	Grand Total
Aleutians	24,262	-	-	24,262
Unalaska	24,262	-	-	24,262
Bristol Bay/Lake & Penn	8,840	32,058	638	41,536
Ekwok	1,650	2,043	100	3,793
Iliamna	-	4,215	-	4,215
Koliganek	2,465	4,228	-	6,693
Port Heiden	3,334	12,558	283	16,175
Ugashik	1,391	9,014	255	10,660
Interior	12,703	4,180	-	16,883
Arctic Village	6,320	2,465	-	8,785
Nulato	3,883	-	-	3,883
Venetie	2,500	1,715	-	4,215
Kodiak	18,785	47,890	964	67,639
Larsen Bay	5,313	23,640	160	29,113
Old Harbor	7,065	7,410		14,475
Ouzinkie	3,012	5,110	190	8,312
Port Lions	3,395	11,730	614	15,739
Norton Sound	12,555	37,009	534	50,098
Alakanuk	5,032	3,166	105	8,303
Golovin	2,786	3,919	429	7,134
St. Michael	3,185	11,730	-	14,915
Unalakleet	1,552	18,194	-	19,746
NW Arctic	4,300	7,620	-	11,920
Noorvik	4,300	7,620	-	11,920
Y-K Delta	15,085	25,489	1,915	42,489
Chefornak	745	8,304	317	9,366
Kongiganak	8,565	5,410	463	14,438
Kwigillingok	2,730	6,865	455	10,050
Scammon Bay	3,045	4,910	680	8,635
North Slope	1,410	23,640	255	25,305
Wainwright	1,410	23,640	255	25,305
Grand Total	97,940	177,886	4,306	280,132



# **Summary of Backhaul Alaska Shipping Activities**

All Program backhauls were shipped by the end of the 2022 calendar year. The table below displays a summary of all poundage shipped by category for the various communities the Program worked with in 2022.

Community	Shipments	Escrap	Lead Acid Batteries	UW Lamps	Fish Nets	Tires	Scrap & Appliances	General Recyclables <sup>1</sup>	Net Weight*	BAP Funded <sup>2</sup>	BAP Partial Fund <sup>3</sup>	BAP Assist⁴
Aleutians												
Unalaska	3	7,044	49,345	782	49,440	-	2,311	868	109,790	Х		
Bristol Bay/Lake	e & Peninsula	1										
Chignik Lagoon	1	6,872	14,663	-	-	-	-	-	21,535	х		
Dillingham**	7	42,813	6,865	2,320	-	-	-	-	51,998		Х	
Ekwok	1	3,185	1,955	-	-	-	-	-	5,140	Х		
New Stuyahok	1	15,470	2,955	955	-	-	-	-	19,380		Х	
Newhalen	4	-	-	-	-	20,000	6,820	-	34,026			Х
Nondalton	1	535	-	-	-	-	9,420	-	9,955			Х
Interior												
Holy Cross	1	-	-	-	-	-	6,000	-	6,000			Х
Kodiak												
Kodiak**	2	33,831	-	129	-	-	-	-	33,960	Х		
Larsen Bay	2	3,420	-	-	-	-	-	-	3,420	Х		
Old Harbor	1	2,000	-	-	-	-	-	-	2,000	Х		
Ouzinkie	4	2,000	-	52	-	-	-	-	2,052	Х		
Port Lions	3	3,420	-	-	-	-	-	-	3,420	Х		
Norton Sound												
Elim	1	2,730	5,910	-	-	-	-	-	8,640		Х	
Nome**	5	44,454	32,910	1,753	-	-	4,950	-	84,067		Х	
Shaktoolik	1	9,525	5,715	-	-	-	-	-	15,240		Х	
Road System												
Fairbanks	1	380	-	-	-	-	-	1,880	2,260	Х		
Glennallen**	1	5,531	-	134	-	-	1,458	69	7,192	Х		
Healy	1	2,165	-	-	-	-	-	-	2,165	Х		
Northway	1	-	-	-	-	11,016	2,940	-	13,956	Х		
Tok**	1	13,718	3,020	149	-	-	1,018	-	17,905	Х		
Y-K Delta												
Chefornak	2	-	-	-	-	-	14,000	-	14,000		Х	
Hooper Bay	1	3,018	4,000	-	-	-	-	-	7,018	Х		
Marshall	1	-	6,364	-	-	-	-	-	6,364		Х	
Mt Village / Pitkas' Point	3	4,540	6,000	-	-	-	11,100	-	21,640	х		
Quinhagak	1	-	8,871	-	-	-	1,436	-	10,307			Х
Totals:	51	167,631	145,154	5,267	49,440	31,016	61,453	1,949	462,778			

Notes - Items in Red were consolidated in hubs and included in other loads. Quantities in Red are not included in the Totals.

\* Not all settlements have been received from vendors. Some quantities & totals are best estimates.

\*\* Quantities include regional/area-wide collection efforts.

<sup>1</sup> General Recyclables include Cardboard, Plastic Bottles, and Aluminum Cans.

<sup>2</sup> BAP Funded includes shipments where the Backhaul AK Program funded all shipping and recycling costs.

<sup>3</sup> BAP Partial Fund includes shipments where the Backhaul AK Program split shipping & recycling costs with communities or partnering organizations.

<sup>4</sup> BAP Assist includes shipments where communities or partnering organizations funded all shipping and recycling costs & where the

Backhaul AK Program provided technical assistance and managed shipping logistics.



# The following pages provide photos and description of the work from select BAP communities conducted during the 2022 backhaul season:

# **Aleutians**

• Unalaska

# **Bristol Bay/Lake & Penn**

- Chignik Lagoon
- Dillingham

# Kodiak (regionwide)

# **Norton Sound**

- Nome
- Shaktoolik
- Alaska Air Trial

# **Northern Road System**

- Glennallen
- Northway
- Tok (including Eagle, Northway, & Tetlin)

# Y-K Delta

- Chefornak
- Marshall
- Mountain Village/Pitkas Point

# **Packaging Validation Trip**

- Metro Metals
- Waste Management





### Unalaska, AK – Public Collection Event

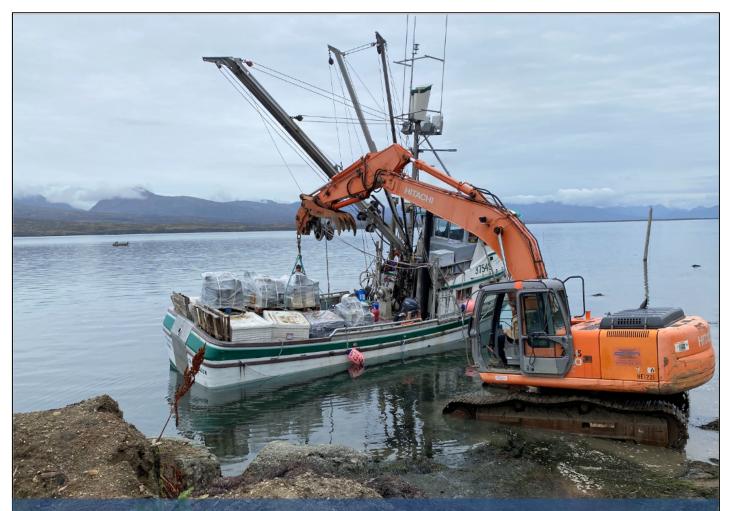
BAP and the Qawalangin tribe held the 2<sup>nd</sup> annual collection event. Community feedback was positive and the Program & Qawalangin tribe aim to make this e-waste collection an annual event. There has not been an organization in Unalaska that has offered consistent recycling opportunities for the public. Now, after partnering with the BAP & gaining experience through hosting these collection events, (and with the support of Matson's Caring for Alaska Program) the Qawalangin tribe has begun offering year-round aluminum can and plastic bottle recycling.







Backhaul Alaska 2022 Program Highlights Appendix G – Select Site Photos



### Chignik Lagoon, AK - Loading Fishing Vessel with Escrap & Lead Acid Batteries

Chignik Lagoon is an isolated community without regular barge service or a reliable barge landing. Material had to be loaded on a local fishing vessel and then transferred to the Trident Seafoods Dock in Chignik Bay to await pickup by Coastal Transport



Backhaul Alaska 2022 Program Highlights Appendix G – Select Site Photos





#### Dillingham, AK – Escrap Collection (before backhaul)

BAP pooled funding with the Bristol Bay Area Health Corp (BBAHC), Bristol Bay Native Association (BBNA), and the Curyung tribe to ship out the large backlog of escrap & fluorescent lamps (UW lamps) staged at the landfill. This material was combined with materials received from the neighboring communities along with villages located up the Nushagak River.



### Dillingham, AK – (after backhaul)

A total of 7 20ft containers were backhauled out of Dillingham. The removal of the escrap & UW lamps has reinvigorated local backhaul & recycling efforts. Plans are ongoing to further develop Dillingham into a regional collection hub.





# **Backhaul Alaska 2022 Program Highlights**

Appendix G – Select Site Photos

### Larsen Bay, AK – Regional Backhaul Program

BAP partners with Kodiak Area Native Association (KANA) to provide islandwide backhaul & recycling services. KANA & BAP provide onsite and technical assistance to help off-road communities prepare and backhaul recyclables.





Port Lions, AK – Regional Backhaul Program Recycling efforts include both general recyclables, as well as hard-to-manage items such as escrap, lead acid batteries, and fluorescent lamps

### Kodiak, AK – Regional Backhaul Program

A "Hub & Spoke" model is used where BAP & KANA help fund air and landing craft shipments between off-road communities & Kodiak. Materials are consolidated in Kodiak for later backhaul.





### Kodiak, AK – Regional Backhaul & HazMat Reg Training

KANA and BAP also partner to provide HazMat and Backhaul packaging trainings opportunities for coordinators in the off-road communities.



**Backhaul Alaska 2022 Program Highlights** 

Appendix G – Select Site Photos

### Kodiak, AK – Regional Backhaul Program

Any opportunity to take advantage of backhauls is seized upon. When returning from site visits to offroad communities, KANA and BAP utilize extra space for backhaul items (when available).







### Kodiak, AK – Regional Backhaul Program

Threshold Services is the local nonprofit recycler in Kodiak. After loading materials received from the off-road communities, any available container space was offered to Threshold.



Appendix G – Select Site Photos

### Nome, AK – 2022 Nome Public Collection Event

11.1.1.1.1

For over a decade BAP partners, Kawerak Inc. (Bering Straits Regional Nonprofit Corporation), have operated a regional backhaul program. Kawerak hosts annual collection events in Nome. Collected items are packaged and consolidated with materials shipping in year-round via both barge and regional air carriers from the 15 surrounding communities.

### Nome, AK – Reginal Backhaul Program

The longstanding program ships 5-7 containers of recyclables annually to recyclers in WA state. Rising costs of transport both regionally and southbound to WA prompted Kawerak to explore additional shipping options.





Backhaul Alaska 2022 Program Highlights Appendix G – Select Site Photos



### Shaktoolik, AK - BAP Site Visit

Staff turnover in rural communities is a common obstacle. Regional coordinators act as a failsafe, where they can step-in to see through backhauls in the case that a local coordinator leaves their position



### Shaktoolik, AK – BAP Site Visit

A new IGAP coordinator was brought on in Shaktoolik. BAP staff and the Norton Sound Regional Coordinator were able to perform a site visit this summer.



### Shaktoolik, AK - BAP Site Visit

The Program was able to provide onsite hands-on training to the new IGAP Coordinator. Shaktoolik successfully backhauled a 20ft container of escrap and lead acid batteries later that season.



# Backhaul Alaska 2022 Program Highlights

Appendix G – Select Site Photos



#### Nome, AK – 2022 AK Air Cargo Backhaul Trial

Kawerak approached AK Airlines to see if backhaul opportunities were available thru their cargo service. AK Air believed that secure pallets of escrap could be used in lieu of water ballast on cargo shipments returning to Anchorage empty. AK Air Cargo agreed to provide free escrap backhaul to Anchorage on a trial basis in late 2022.

BAP was asked to help manage logistics and facilitate the shipment of escrap to WA upon arrival in Anchorage. The trial saw 22 pallets of escrap (over 14,000 lbs) backhauled to Anchorage. From there pallets were shipped to Tacoma, WA via Matson's freight donation.

The support of Matson and AK Air demonstrated significant cost savings, as well as provided a rare southbound backhaul opportunity beyond the Western AK barge season.

AK Airlines was pleased with the trial and plans to continue the service are scheduled for May. It is the Program's hope that similar opportunities can be offered in other Hub Communities.









In partnership with Recycling Our Area Resources (ROAR) and the Copper River Native Association (CRNA), the Backhaul Alaska Program held its first-ever collection event on the AK road system. The event was publicized & drop-offs were coordinated with the various communities within the region.



Backhaul Alaska 2022 Program Highlights

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Glennallen, AK – Copper Valley Area Collection Event

The 3-day collection event was held at ROAR's (local nonprofit recycling center) drop-off location. CRNA coordinated volunteers from surrounding communities along with the local Youth Environmental program.





Backhaul Alaska 2022 Program Highlights Appendix G – Select Site Photos





Appendix G – Select Site Photos



### Northway, AK - Tire & Appliance Backhaul

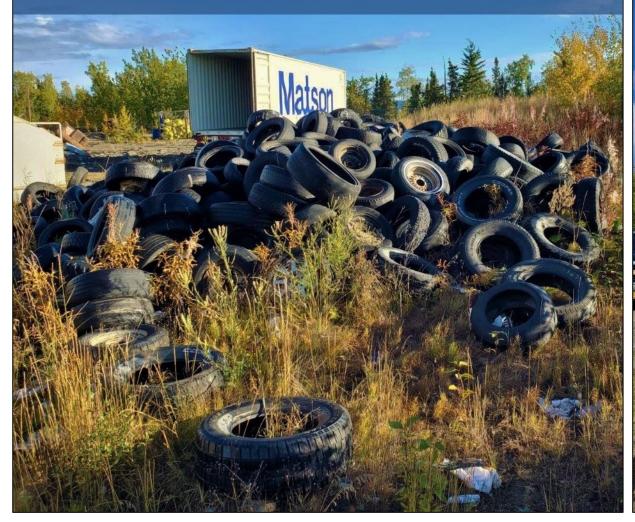
Northway's remote location makes waste management challenging. Further, recycling opportunities are rare and often expensive. During an initial site visit (in planning for the Tok Area collection event) the Northway Village Council indicated that junk tires, appliances, and scrap metal have taken up much of the landfill's available space. Further, a regional burn ban halted the use of the landfill's burn units causing a large accumulation of waste in the landfill. Wildfires have threatened the Northway landfill in the past and staff was concerned about the threat of fire within the landfill and the impact the junk tires would have if they ever caught on fire. This prompted the BAP to help plan removing the junk tires from the landfill to reduce the risk & impact posed by burning tires.



Backhaul Alaska 2022 Program Highlights Appendix G – Select Site Photos

### Northway, AK – Tire & Appliance Backhaul

BAP assisted with the backhaul of roughly 500 tires from the Northway landfill. Due to the expense of trucking, shipping, and tire recycling, this backhaul project would not have been possible without the freight donations provided by the Matson Caring for Alaska Program.







Appendix G – Select Site Photos



### Northway, AK - Tire & Appliance Backhaul

The landfill space freed-up by the backhaul has allowed Northway to reorganize the landfill. The additional room has allowed for easier and improved waste management practices. Northway is currently seeking funding to backhaul additional appliances and scrap metal.



# Northway, AK - Tire & **Appliance Backhaul**

BAP assisted with the backhaul of 500 tires from the Northway landfill. While onsite, over 70 refrigerator and freezers were evacuated. Limited space only allowed 16 to be loaded for backhaul.





Appendix G – Select Site Photos

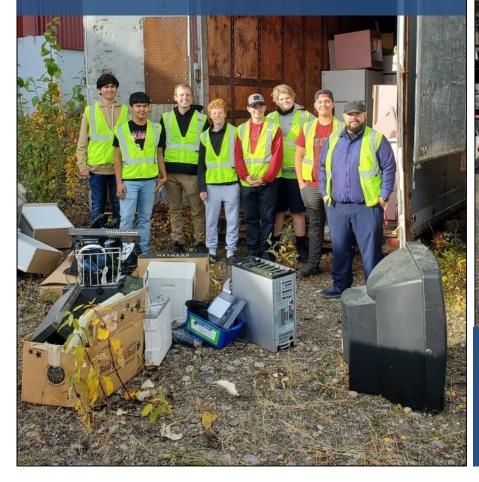




Appendix G – Select Site Photos

#### Tok, AK – 2022 Areawide Collection Event

The Alaska Gateway School District encompasses the communities of Dot Lake, Eagle, Tanacross, Tetlin, Tok, Mentasta Lake, and Northway. The District indicated they had backlog of escrap they were unable to currently manage. Students and district staff helped clean out escrap from District storage containers and Tok school storage closets. Materials were transferred to the staging area that the District generously provided for the collection event.





# Tok, AK – 2022 Areawide Collection Event (Eagle Dropoff)

Eagle is connected to Tok by a rough 170 mile road only accessible during the summer months. Staff with the Native Village of Eagle expressed how difficult is for them to recycle materials and how they'd like to work with other area communities to make recycling easier. This prompted the initial planning for the areawide collection event. Village of Eagle staff assisted in the early organizational efforts.

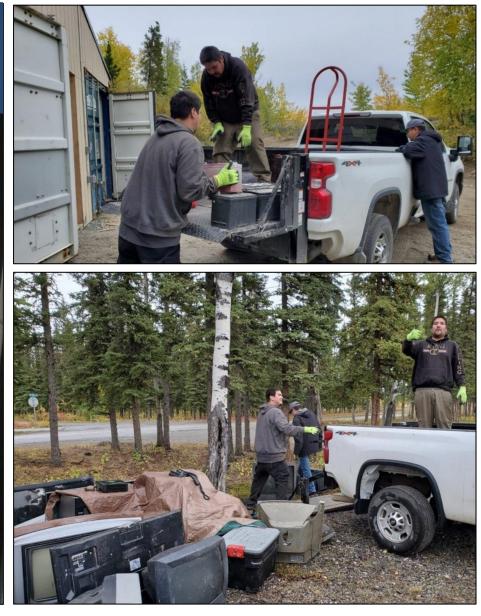


Appendix G – Select Site Photos

# Northway, AK – Escrap & Lead Acid Battery Backhaul

Upon completing the tire & appliance backhaul, BAP assisted Northway landfill staff transfer 7 truckloads of material to the collection site in Tok, AK. The container used for storing escrap, lamps, & batteries was completely emptied out, removing nearly 8 years of backlog.









# Tok, AK – 2022 Areawide Collection Event (Tetlin Dropoff)

The Tetlin Village Council was excited by the opportunity to bring items to Tok. Staff were able to clear out their recycling shed where the materials were stored. Roughly 5 pallets of escrap, lamps, and batteries representing at least 3 years of accumulation were received.







Appendix G – Select Site Photos

#### Tok, AK – 2022 Areawide Collection Event

The collection resulted in the backhaul and recycling of nearly 18,000 lbs of material. In addition to escrap, lamps, and batteries, a few appliances were also taken in from residents. These were drained of refrigerant and filled the available space at the end of the load.

There is still no local organization that provides recycling opportunities in Tok. Community members must transport items to Anchorage, Glennallen, or Fairbanks for recycling services. The BAP collection Program allowed for this rare opportunity for area residents to divert these hard-to-manage recyclables from the local landfill. BAP is currently exploring ways to make recycling more accessible to residents within the Tok area.





Appendix G – Select Site Photos

# Chefornak, AK – BAP Site Visit

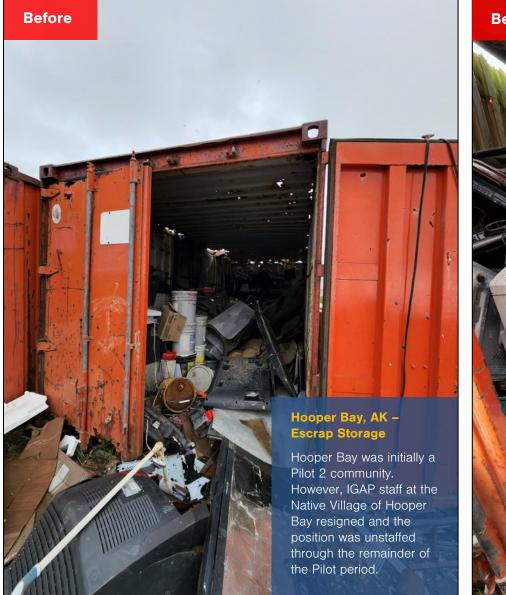
The tribe was notified by the City of Chefornak that their white good staging area was located on a culturally sensitive area. The tribe had limited time to relocate the staged white goods.

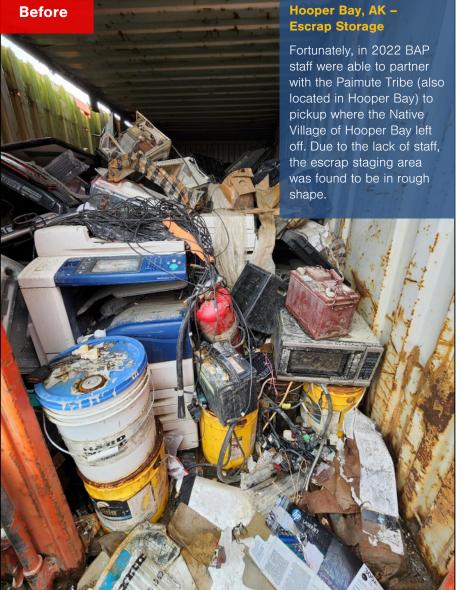






Appendix G – Select Site Photos







Appendix G – Select Site Photos



# Hooper Bay, AK – Packaging

The Paimute IGAP Coordinator participated in BAP trainings and received additional backhaul supplies (including a pallet jack). He was able to chip away at the backlog of escrap and lead acid batteries in storage and begin building a load. Unfortunately, a huge storm hit Western Alaska and Hooper Bay was one of the hardest hit communities – Flooding caused widespread damaged. The storm hit just days before the barge was to arrive.

#### Hooper Bay, AK – Packaging

The Paimute IGAP Coordinator was committed to seeing through the shipment and despite all the flood damage, finished packaging backhaul materials just prior to the barge arriving. There is still a large volume of items in the staging area, but efforts are being taken to remove more material.





Appendix G – Select Site Photos



Mt Village is located on the lower Yukon River. Flooding is a seasonal danger, as is what happened this spring. Appliances loaded and staged at the barge landing for barge pickup were swept down river. Most were recovered and subsequently reloaded in shipping containers. They all made it out on the late summer barge.





Mt Village, AK – Lead Acid Battery Packaging

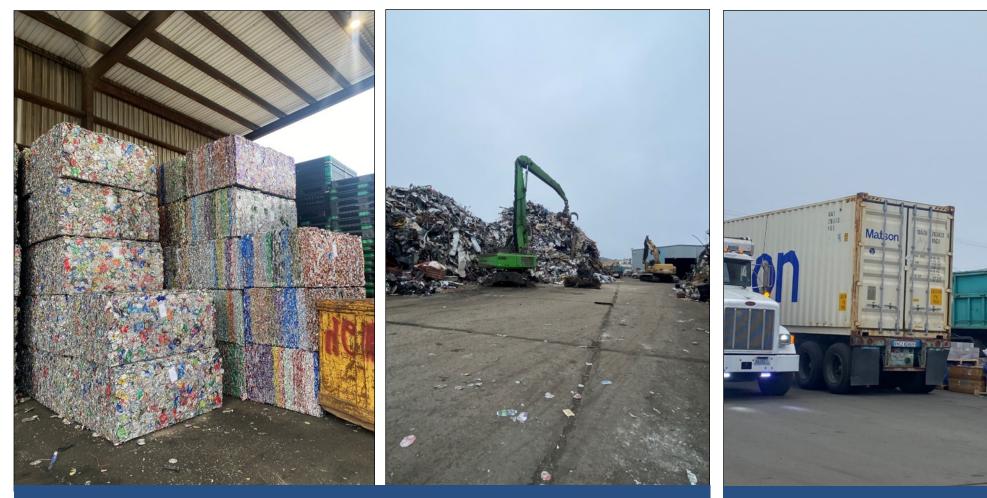


#### Pitkas' Point, AK

Pitkas' Point is connected to Mt. Village by a 22 mile gravel road. Staff from the Asa' Carsarmuit Tribe (Mt. Village) generously offered to pickup material from Pitkas' Point & consolidate it with their material.







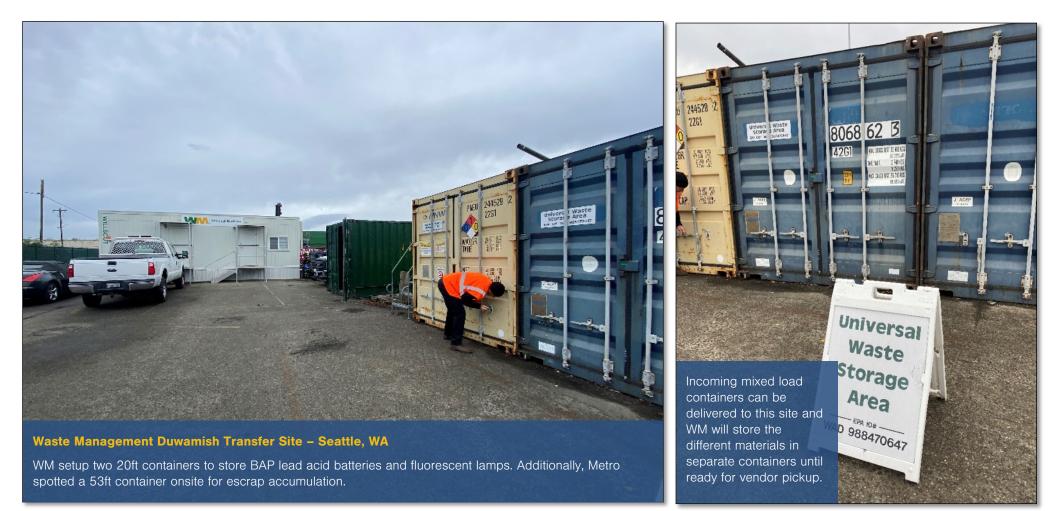
# Metro Metals, Northwest – Tacoma, WA

Metro Metals' Tacoma facility is the transfer site for their escrap processing facility located in Vancouver, WA. BAP staff were able to get a facility tour and discuss BAP packaging performance and ways to further the BAP-Metro partnership.

Metro Metals, Northwest – Tacoma, WA

Incoming BAP Shipment via Matson Caring for Alaska Freight Donation.







Appendix G – Select Site Photos





Lead acid batteries received from Ekwok, & New Stuyahok