



Zender Environmental Health and Research Group
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Backhaul Presentations

Backhaul & HMR Training

Backhaul Presentations

Backhaul & HMR Training

Summary of Sections:

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2. What Does Hazardous Mean?..... Page 9
3. Backhaul Walkthru..... Page 15

Backhaul Presentations

Backhaul & HMR Training

Section 1



Backhaul Overview

Backhaul Alaska

Building a Self-Sustaining Waste Removal Program for Rural Alaska



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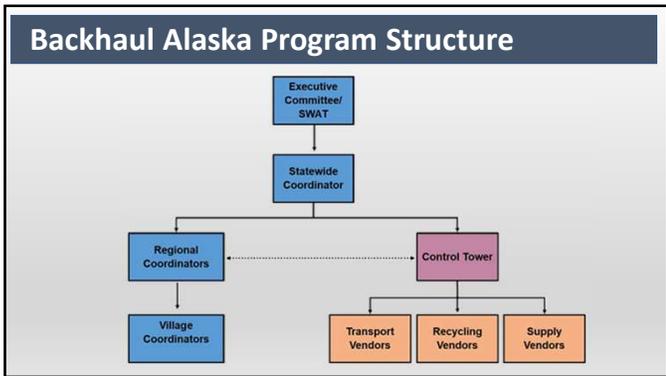
Backhaul Alaska Program

Backhaul Alaska will coordinate waste backhaul efforts statewide and save costs through more efficient routing, training, communications, and price brokering.



The **ultimate goal** of Backhaul Alaska is to **operate as a full management service** for any entity generating waste in rural Alaska and provide jobs.

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Backhaul Alaska Staff – Currently

Zender/Backhaul Alaska Staff

- Simone Sebalo
- Reilly Kosinski
- Derrik Spoelman
- Lepani Nadore
- Evelyn Agnus
- Jasmine Perea
- Joanna Kelly
- Karla Jensen



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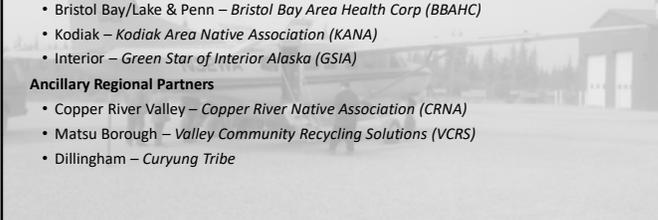
Regional Coordinators – Currently

BAP Regional Coordinators

- Aleutians – *Qawalangin Tribe of Unalaska*
- Bering Strait/Nome – *Kawerak, Inc.*
- Bristol Bay/Lake & Penn – *Bristol Bay Area Health Corp (BBAHC)*
- Kodiak – *Kodiak Area Native Association (KANA)*
- Interior – *Green Star of Interior Alaska (GSIA)*

Ancillary Regional Partners

- Copper River Valley – *Copper River Native Association (CRNA)*
- Matsu Borough – *Valley Community Recycling Solutions (VCRS)*
- Dillingham – *Curyung Tribe*



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Backhaul Alaska Partners & Supporters

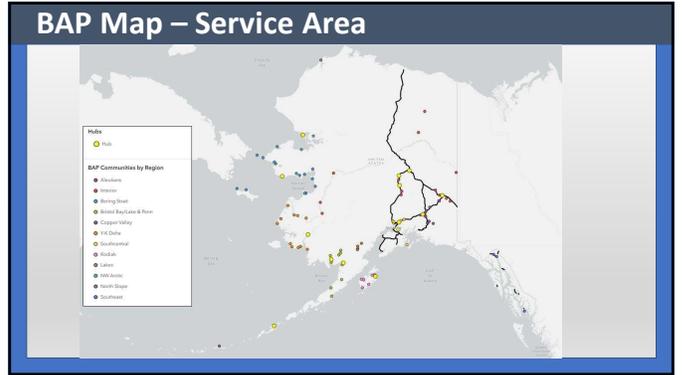
Federal Agency Supporters

Statewide Supporters

Commercial Partners

Regional Partners

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Target Materials

The Backhaul AK Program Targets...

- Scrap
- Lead Acid Batteries
- UW Lamps
- Fishnets
- Marine Debris (*new for 2024*)
- Li/Li-Ion Batteries (*new for 2024*)

Have also managed

- Appliances
- Refrigerant Gases
- Tires
- Paint
- Household Batteries
- General Recyclables

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Backhaul Alaska – 2023 Summary

Anticipated Poundage for 2023

- Scrap: 173,624
- UW Lamps: 7,050
- Lead Acid Batteries: 124,003
- Derelict Fishing Gear: 4,900
- Household Batteries: 1,075
- Scrap/Refrigerators/Freezers: 121,138
- Cardboard, Glass, Al Cans: 3,971
- HHW: 11,670

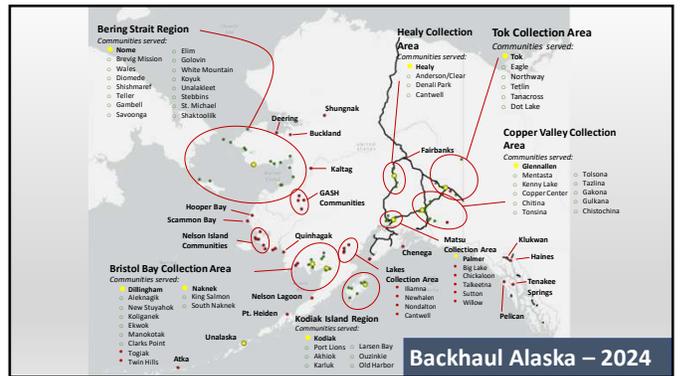
2023 Anticipated Total: 447,431 lbs

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Backhaul Poundage – thru 2023

Total Weights Backhaul via the BAP thru 2023						
BAP Phase	Scrap	Lead Acids	UW Lamps	Other	TOTAL	Communities
Pilot 1 – 2019	26,933	44,034	951	---	71,918	10
Pilot 2 – 2021	71,007	133,852	3,355	---	208,214	16
BAP Year 1 – 2022	167,631	145,154	5,267	144,726	462,778	57
BAP Year 2 – 2023	173,624	124,003	7,050	142,754	447,431	68
TOTAL	439,195	447,043	16,623	287,480	1,190,341	97

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2024 Planning

2024 Backhaul Season

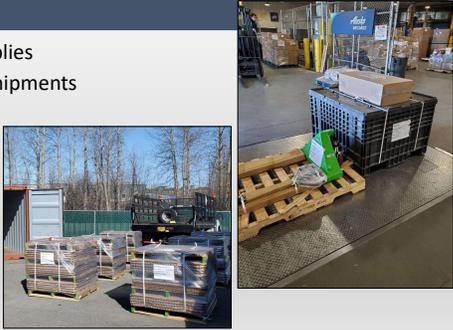
- Supplies
- Training
- Inventory
- Site Visit
- Shipping & Logistics



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Supplies

- Standard BAP Supplies
- Bulk Hub Supply Shipments
- Training Materials
- Pallet Jack
- Core Kits
- Drums



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Supplies

Item	Notes	QTY
PPE		
Safety Glasses	Clear	10
Work Gloves	Medium	3
Work Gloves	Large	3
Chem Gloves	Medium	3
Chem Gloves	Large	3
Chem Apron		3
1st Aid Kit	Contractor Style	1
Splash Goggles		3
Nitrile Gloves - L	Box of 100	1
Nitrile Gloves - M	Box of 100	1
Labels		
#8 Labels	Roll of 500	1
UW Labels	Pack of 200	1
#8 Placards	Pack of 25	1

Item	Notes	QTY
Packaging Material		
Vermiculite	3.5 cu-yd	1
Stretch Wrap	Box-4 rolls	1
Packaging Tape	Roll	3
Tape Gun		1
Banding	Banding Kit	1
Tensioner	Banding Kit	1
Clips	Banding Kit	1

- Pallet Jack
- Battery Bags
- Lamp Boxes
- Additional Labels
- Other (case-by-case)

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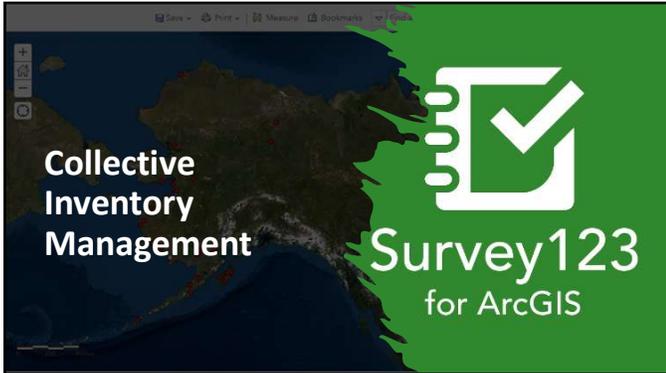
BAP Training – 2024

2024 Backhaul and HazMat Regulation Trainings

Date	Training
May	Anchorage – Backhaul & HMR
June	Glennallen – Backhaul & HMR
August	Bethel – Backhaul & HMR
August	Kodiak – Backhaul & HMR
Fall/Winter	Virtual – Backhaul & HMR



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Collective Inventory Management

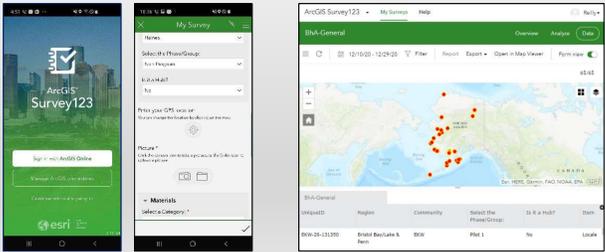
Survey123 for ArcGIS

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Survey123 – How it works

There are 2 main components...

- 1) **The App** – for completing surveys & submitting records (phone, tablet, computer)
- 2) **The Dashboard** – for viewing and analyzing all submitted records collectively (computer only)



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Site Visits

Will coordinate during a follow-up call...

- Assist in collection, planning, & packaging
- Provide additional training, if needed
- Other tasks as identified



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Shipping & Logistics

Can assist with...

- Quotes
- Bookings
- Vendor Communications
- Shipping Paperwork Preparation
- Logistics Management/Tracking
- Reporting
- Funding



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Technical Assistance

Ongoing Technical Assistance on Solid Waste Backhaul & Recycling matters



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Funding

Backhaul Alaska has funding for...

- Training (for USDOT funded trainings)
 - at least 1 person per community
 - Travel, Lodging, Per diem
- Supplies
 - Base Supplies for new Communities
 - Replenish supplies for repeat shippers
 - "a la carte" items (ex: pallet jack)



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Funding

Backhaul Alaska has funding for...

- "Infrastructure" Funding
 - For items to support backhaul activities
 - Connexes, construction material, etc.
- Shipping & Recycling
 - In General – cover the shipping & recycling equivalent to a 20ft container of material.
 - Target Escrap, Lead Acid Batteries, UW lamps (i.e. fluorescent lamps), & fish nets
 - Can expand to other materials on a case-by-case basis.



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Areas of Focus

Areas of focus in 2024 include...

- Bristol Bay Borough Enrollment
- NIC SWIFR Support
- Continued Hub Development
- Marine Debris Inclusion
- Pt. Heiden & Nelson Lagoon Shipments
- GSIA – Yukon River System Logistics
- AK Air Program Expansion
- Batteries – especially Li/Li-Ions
- Staff Training/Ramp-up
- HW/HHW Tech Assistance

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Challenges...

Challenging Materials

- Used Oil, Glycol, Fuel
- Abandoned Drums
- PCB Ballasts
- Crushed Lamps
- Paint/Paint Related Materials
- HHW Accumulations



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Challenges...

Management Challenges & Barriers

- Staff Turnover
- Dumpoffs/Inheritance/Legacy Materials
- Sampling/Onsite Management
- Awareness, Training, Knowledge
- Transportation (no LCL)
- Seasonality (Shipping frequency)
- Supplies (Sound & UN Packaging)
- Storage Capacity Limitations
- Expense



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Backhaul Alaska

*Building a Self-Sustaining Waste Removal
Program for Rural Alaska*



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Backhaul Presentations

Backhaul & HMR Training

Section 2



What Does Hazardous Mean?



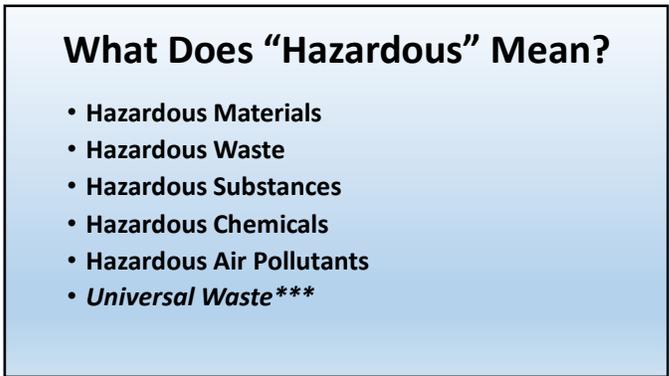
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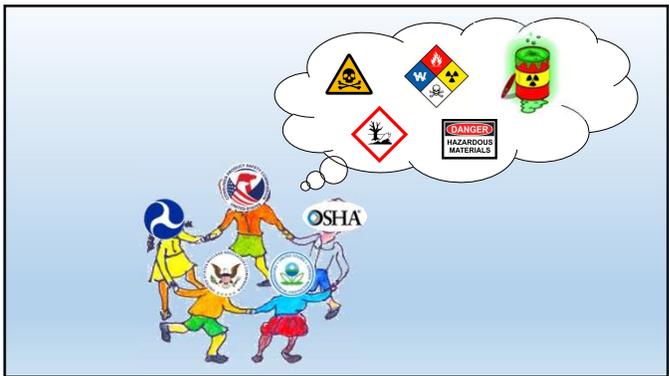
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Where Do I Fit In???

Universal Waste		Hazardous Waste		
Small Quantity Handler of Universal Waste (SQHUW)	Large Quantity Handler of Universal Waste (LQHUW)	Very Small Quantity Generator (VSQG)	Small Quantity Generator (SQG)	Large Quantity Generator (LQG)
Universal Waste Transporters		Hazardous Waste Transporters		
Universal Waste Destination Facility		Transfer Facility	Treatment, Storage and Disposal Facilities	

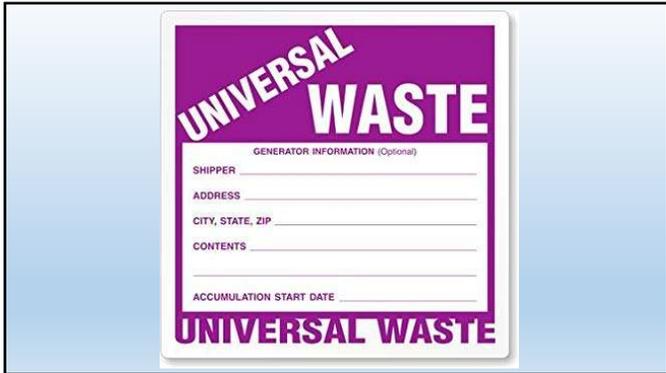
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Where Do I Fit In???

Universal Waste		Hazardous Waste		
Small Quantity Handler of Universal Waste (SQHUW)	Large Quantity Handler of Universal Waste (LQHUW)	Very Small Quantity Generator (VSQG)	Small Quantity Generator (SQG)	Large Quantity Generator (LQG)
Universal Waste Transporters		Hazardous Waste Transporters		
Universal Waste Destination Facility		Transfer Facility	Treatment, Storage and Disposal Facilities	

Note: All cells in this table are crossed out with a large red 'X'.

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Why Manage as Universal Waste?



Much easier management of materials that would otherwise be Hazardous Wastes

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Why Manage as Universal Waste?

The EPA wants too...

- Promote Recycling of these wastes
- Ease regulation burdens
- Keep these waste out of landfills

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Universal Waste

Universal Waste (Federal)...

- Fluorescent Lamps
- Mercury containing devices
- Batteries
- Pesticides
- Aerosols
- ...coming soon – EWASTE! (State specific)

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Universal Waste

Universal Waste (Federal)...

- Sound packaging
- Prevent leaks if items break
- Remained closed
- Be marked & labeled

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Where Do I Fit In???



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Other Important Requirements



Small Quantity Handler of Universal Waste (SQHUW)

SQHUW Requirements		Avoid these requirements if you maintain SQHUW Status
Quantity Handled by Category <small>40 CFR 2273.9</small>	Accumulate <i>less than</i> 11,000 lbs (5,000 kg) onsite at any one time	
On-Site Accumulation Limit <small>40 CFR 2273.9</small>	<i>Less than</i> 11,000 lbs (5,000 Kg)	
Storage Time Limit <small>40 CFR 2273.15</small> (without a storage permit)	1 Year	
Personnel (Employee) Training <small>40 CFR 2273.16</small>	1) Proper handling and 2) Emergency procedures	

- Facility EPA ID Number
- HazWaste Manifesting
- Maintaining Shipping Records

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Considerations

Things to consider when dealing with Hazardous Wastes

- Sorting & packaging is complex
- Shipping & disposal is expensive
- Planning takes a lot of time
- Will likely need outside assistance
- Increased risks (health, safety, environment, etc.)



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Where Do I Fit In???



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Important Requirements



Very Small Quantity Generator (VSQG)/HHW

VSQG Requirements		Avoid these requirements if you maintain VSQG Status
Quantity Handled by Category <small>40 CFR 260.10</small>	<i>Less than</i> 220 lbs (100 kg) per month, and <i>Less than</i> 2.2 lbs (1 kg) per month of acute hazardous waste	
On-Site Accumulation Limit <small>40 CFR 262.14(a)(3) & (4)</small>	<i>Less than</i> 2,200 lbs (1,000 kg) <i>Less than</i> 2.2 lbs (1 kg) of acute hazardous wastes	
Storage Time Limit (without a storage permit)	None	
Pre-Transport Requirements Package and label hazardous waste for shipment	Must comply with applicable DOT HazMat requirements	

- Facility EPA ID Number
- HazWaste Manifesting
- Formal Contingency/Emergency Response Plans
- Accumulation Requirements
- Reporting
- Recordkeeping

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US DOT

Also Remember...

You have to comply with DOT Regulations too!!!

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Contact Us



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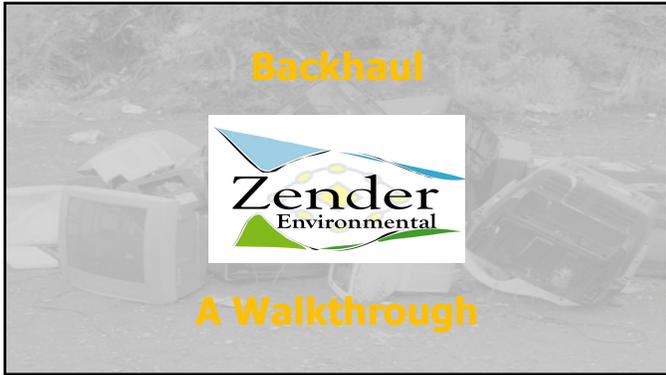
Backhaul Presentations

Backhaul & HMR Training

Section 3



Backhaul Walkthru



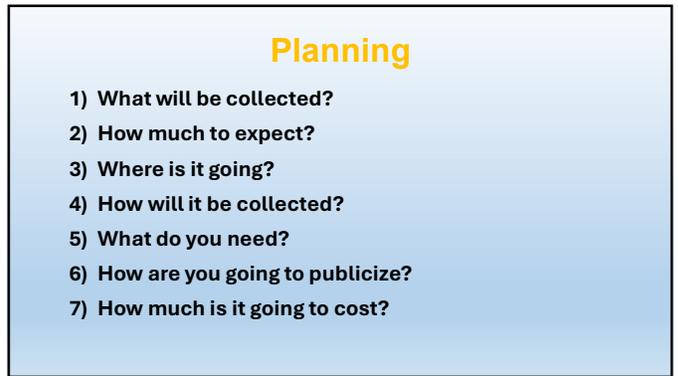
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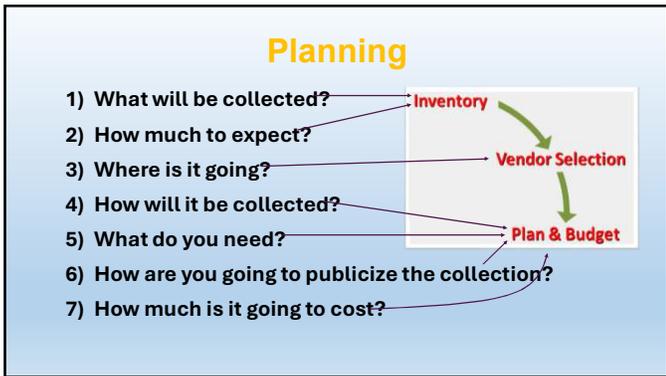
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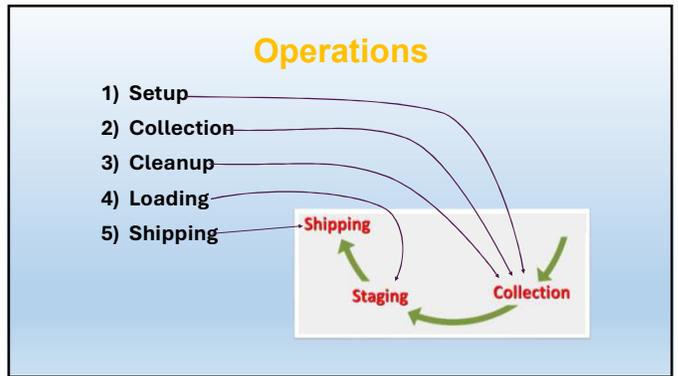
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Planning

- 1) What will be collected? – **Paint (HM & Latex)**
- 2) How much to expect? – **20ft Container (16 Pallets)**
- 3) Where is it going? – **Seattle...Need a Vendor**
- 4) How will it be collected? – **All ready onsite (landfill)**
- 5) What do you need? – **Packaging Supplies, Labor, Forklift**
- 6) How are you going to publicize? **NO PUBLICITY!!!**
- 7) How much is it going to cost? **Need Quotes**

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Collection Event Walk-thru-13

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Planning

How are we going to manage it?

- Regulatory (Non-Haz vs. HW vs. HHW)
- Practically
 - Consolidate
 - Bulk packaging
 - Segregation

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Collection Event Walk-thru-14

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Planning

How are we going to manage it?

- Regulatory (Non-Haz vs. HW vs. HHW)
- Practically
 - Consolidate
 - Bulk packaging
 - Segregation
 - Oil Based/Combustible
 - Latex/Water Based
 - Other (sealants, adhesives, etc.)

Zender Environmental

Collection Event Walk-thru-15

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Planning – Supplies

What Supplies Do We Need?

- UN Specific Packaging (Gaylords)
- Pallets
- Liners
- Markings & Labels
- Tape/Tape Gun
- Forklift



Zender Environmental

Collection Event Walk-thru-16

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Planning – Supplies

What Supplies Do We Need?

- UN Specific Packaging (Gaylords)
- Pallets
- Liners
- Markings & Labels
- Tape/Tape Gun
- Forklift



Zender Environmental

Collection Event Walk-thru-17

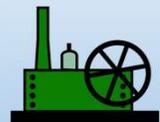
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Planning – Vendors & Logistics

Shipping



Disposal



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Planning – Vendors, Logistics, & Quotes

Shipping



ALASKA MARINE LINES



Disposal



WM

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Planning – Vendors, Logistics, & Quotes

Shipping



ALASKA MARINE LINES

\$6,000 (non-HW)



Disposal



WM

\$18,000 (non-HW)

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Planning – Vendors, Logistics, & Quotes

Activity	Rate	QTY	Balance	Notes
DIL Trucking	\$ 500.00	1	\$ 500.00	Estimate to & from DIL Landfill
AML Shipping	\$ 5,561.34	1	\$ 5,561.34	AML Quote
SEA Trucking	\$ 600.00	1	\$ 600.00	Estimate to WM Rail Facility
WM Landfill Transport	\$ 2,295.00	1	\$ 2,295.00	WM Quote 5552
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Disposal - HM Paint	\$ 1,413.00	4	\$ 5,652.00	WM Quote 5552
Disposal - HM PRM	\$ 1,413.00	4	\$ 5,652.00	WM Quote 5552
Disposal - Non HM Paint	\$ 462.00	8	\$ 3,696.00	WM Quote 5552
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WM Profile	\$ 85.00	4	\$ 340.00	WM Quote 5552
WM Manifest Fee	\$ 100.00	1	\$ 100.00	WM Quote 5552
OR DEQ Fee	\$ 5.00	5	\$ 25.00	WM Quote 5552
WM WWM Fee	4.75%	\$ 15,000.00	\$ 712.50	WM Quote 5552
<hr/>				
			Shipping \$ 8,956.34	
			Disposal \$ 15,000.00	
			Fees \$ 1,177.50	
			TOTAL \$ 25,133.84	

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Planning – “Prewrite”

Setup – Prewrite

- Purchase & Ship Supplies
- Coordinate Dates & Workers
- Training/Regulatory Review
- Waste Profiles



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Planning – “Prewrite”

Setup – Prewrite

- Purchase & Ship Supplies
- Coordinate Dates & Workers
- Training/Regulatory Review
- Waste Profiles
- **Shipping Paperwork**



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Operations – Sorting



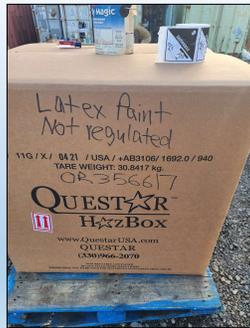
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Operations – Packaging



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Operations – Mark & Label



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Operations – Loading



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Operations – Cleanup

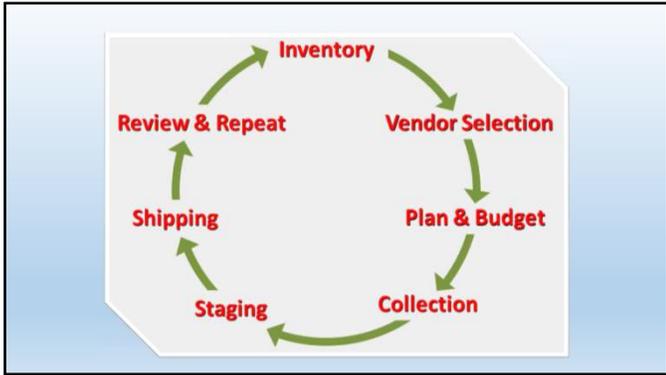


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Operations – Shipping Paperwork



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Questions?

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