

# Green Star Community

- ▶ Success Stories  
to Inspire You to  
Succeed



# Green Star for Communities

- The **Green Star Communities Program** supports rural Alaskan villages that want to practice waste reduction, energy conservation and pollution prevention. Communities that meet the Green Star Community Standards are recognized for their accomplishments.



# What is Green Star?



- **Green Star** nonprofit organization operated with the support of the Alaska Forum
- Non-Regulatory, funded through the EPA.
- Supports Communities in Rural Alaska that wish to practice waste reduction, energy conservation and pollution prevention.
- Education, technical assistance and “Green Community” certification program.
- Recognition for Green Star Community awardees at the Alaska Forum
- Technical Assistance for Solid Waste and Backhaul Projects





# On-Site Assessment

- On-site walk through of Community
- 1 – 6 hours depending on Community size
- Evaluate Green Star Award Standards
- Discuss P2 reduction standard
- Photo documentation of site
- Complete the Green Star Award Standards Achievement Report





# Assessment Report and Work Plan

- Assessment report is the “report card” for your community
- Recognizes “standards” achievements
- Set realistic goal for short term goal completion
- Assessment report is completed by Green Star staff and provided two weeks after assessment
- Work plan is worked on by both parties at assessment, finalized and sent with Assessment report.



# Technical Assistance / Outreach

- Solid Waste Assistance
- Backhaul Assistance
- Site assessment
- Public Meetings
- Energy audit – recommendations
- Lighting audit
- Member workshop

# Green Star Communities Program Goals



IMPROVE  
LANDFILL  
OPERATIONS



REDUCE  
HAZARDOUS  
WASTE DISPOSAL



IMPROVE  
ENERGY  
CONSERVATION



REDUCE  
WASTEWATER



IMPROVE  
DRINKING WATER

# Long Term- Short Term Goals



- Short-term goals - are objectives to complete the Green Star® standards and achieve the Green Star® Community award. These goals may have an immediate need from the community to complete or be achievable through community education and/or technical assistance by the Green Star® staff.
- ❖ Long-term goals -are often achieved after the Green Star® Community award has been presented. Long-term goals afford strategic planning for the community and agree upon deadlines for completion. Long-term projects can be large capital projects or projects that require one or more barge seasons. Long-term goals can also take the form of a regional program where collaboration with neighboring communities is required.



## Green Star Community Program

The *Green Star Community Award* is provided to a community that demonstrates they meet specific health and environmental standards. The Green Star Community Standards were designed with flexibility to apply to any community regardless of size or location.



# Why enroll in the Green Star Community Program?

1. Environmental Stewardship
2. Reduced Environmental Impact
3. Improved Community Health
4. Recognition
5. Technical Assistance



# GSC Awardees



- Aniak
- Akutan
- Chignik Lake
- Chuathbaluk
- Ekuk
- King Cove
- Tyonek
- Ugashik
- Yakutat
- Akiak
- Togiak
- Atka
- Napakiak
- Kokhanok
- Sand Point
- Port Alsworth
- Tanacross
- Kongiganak
- Koyukuk
- Nulato
- Minto
- Kwigillingok



# Green Star Communities Awardees - 2020

- Togiak
- Atka
- Napakiak
- Kokhanok
- Sand Point
- Port Alsworth



# Green Star Communities Awardees - 2021

- Tanacross
- Kongiganak
- Koyukuk
- Nulato
- Minto
- Kwigilliongok





# COVID-19

- Scaled back village site-visits
- State Approve Covid-19 Plan
- Covid testing 72 hours prior to travel
- Masks during projects
- Limited interaction with village residents
- Quarantine after event/daily work
- Zoom meeting updates

# Atka - 2020



- New Smart Ash burner
- EPA/ETEP – Survey for prioritizing projects
- Quarterly newsletter
- Inventory of Scrap backhaul project
- Hydroelectric power dam



# Green Star Principles Atka



284 kW hydroelectric power  
generating 400,000 kWh/year



Smart Ash burner – burn oily waste  
materials for remote locations



Inventory scrap material for future  
backhaul

Prioritize environmental project list  
for community





# Kokhanok - 2020

- Bio-Mass Generator & hydronic heating
- Landfill Clean-up project
- E-Waste and tire backhaul
- New recycling center
- Signage for the landfill
- ❖ Restoration of Kokhanok Wind-Diesel Microgrid



# Green Star Principles Kokhanok



Wind Turbine new battery energy storage system and upgraded software



Organize waste in landfill, ship out hazardous waste and train workforce on managing material



Two 90-kW Wind turbines – goal to achieve a 50% reduction in power plant diesel fuel consumption in a diesel microgrid



Bio-mass reduces cost of building heat for Tribal Office, Post Office and Laundromat





## Port Alsworth - 2020

- HHW Collection/Backhaul
- New diesel generator
- Heat recovery system for school and other buildings
- ❖ New Landfill
- ❖ Solar, or wind power for sustainable energy

# Green Star Principles Port Alsworth



Take advantage of returning chartered flights to reduce costs.



Maintain current power system look to integrate wind for future / Wind feasibility study



Heat recovery system for school and several other buildings

New landfill for the community

# Sand Point - 2020

- 300 scrap vehicle backhaul
- 750+ tires backhauled
- E-waste backhaul
- Two 500 kW wind turbines



# Green Star Principles Sand Point



Vehicles had fluids drained, batteries removed and tires pulled. Free up valuable space in the SP landfill and reduce hazards from leaking vehicles



Tires take up valuable space in the Sand Point landfill. Tires shipped to Olympia, WA for recycling



Electronic waste from community and school. Take up valuable space. Recycled in Seattle. Reduce hazards in community



Turbines reduces 15% of Sand Points electric utility. Excess wind energy is used to heat certain building in the community. Goal of expanding that program



# Togiak - 2020

- Appliance freon removal
- Energy efficient windows for public buildings and housing units
- LED lighting for public areas/Tribal office
- Upgraded power plant
- ❖ Oil collection program
- ❖ Waste incinerator upgrade

# Green Star Principles Togiak



Capture green house gasses for recycling with Freon removal program



Waste incinerator upgrade, reduce smoke from burning waste. Further reduce volume of waste and minimize air impacts



Oil collection program at landfill. Segregate waste stream and re-use oil for heating shop



Reduce heating costs with energy efficient windows



LED lighting for public areas/Tribal office





## Napakiaak - 2020

- Transformer backhaul
- HHW collection and backhaul event
- Bethel electric intertie
- ❖ School tank demolition

# Green Star Principles Napakiak



Removed 42 transformers from landfill and IGAP Conex. Fluids drained for disposal. Transformers recycled.



Participate in the Donlin Gold Kuskokwim Regional Backhaul Program. Removed approx. 7,500lbs. of e-waste.



Bethel Interties – Replace approx. 170,280 gal. of diesel fuel (Bethel/Oscarville/Napakiak) with 2,370MWh/year wind power. Stabilize future cost of power for 20 yrs. Reduce est. 1,728 metric tons of CO<sub>2</sub> annually, replacing 6% of diesel generated power.

School tanks at risk of erosion. Need cleaned and removed



# Kongiganak - 2021



- Appliance backhaul
- E-waste backhaul
- ❖ Wind turbine system upgrade project

# Green Star Principles Kongiganak



100 appliances, Freon removed and backhauled for scrap. Freed up valuable space in scrap metal area. Removed hazards from the tundra. Captured Freon – Green house gas



Participate in the Donlin Gold Kuskokwim Regional Backhaul Program. Removed approx. 6,800lbs. of e-waste.



Wind Turbine new battery energy storage system and upgraded software. Wind Turbines offset 30%-40% of the diesel required to meet the communities base electric load



Heat recovery system from excess wind energy, saves City approx. 12,900 gallons of heating fuel per year





# Nulato - 2021

- 40+ drums of used oil and old fuel backhauled
- E-waste backhaul
- Tire backhaul
- Appliance backhaul
- ❖ Research Bio-mass project

# Green Star Principles Nulato



Leaking drums removed from landfill staging area. Reduce impacts from hazards



Appliances staged in along of the landfill road were backhauled. New appliances will be staged and Freon removed as they are collected.



Tires will be collected and backhauled on a regular basis.



Research feasibility of constructing a Biofuel plant in Nulato. Cost/benefit analysis. Bio-mass generator will reduce reliance on diesel fuel for heat and use locally available resources.

# Kwigillingok - 2021



- Appliance/Scrap Metal Backhaul
- Complete energy audit for Water Treatment Plan
- Transformer Backhaul
- Wind Turbine System Upgrade
- ❖ Close out old Kwigillingok landfill

# Green Star Principles Kwigillingok



20+ transformers drained of fluid for disposal. Transformers recycled. Reduce volume of material in town and reduce risk of leaking transformer oil.



Appliances collected for backhaul and Freon drained. Appliances taking up valuable room at metals staging area. Metals area in a sensitive wetland. Reduce impacts from appliances



Wind Turbine new battery energy storage system and upgraded software. Wind Turbines offset 35%-45% of the diesel required to meet the communities base electric load



Heat recovery system from excess wind energy, saves City approx. 9,800 gallons of heating fuel per year



# Minto - 2021

- Landfill clean-up and improved operations
- HHW shed sorted and backhaul
- Lakeview Lodge weatherization
- ❖ Research Bio-mass Generator



# Green Star Principles Minto



Material can be backhauled to Fairbanks for disposal and recycling – reduce volume of material at landfill



Garbage removed from shed and material organized. Reduce risk of impacts from material HHW



Weatherization project drastically reduced heating fuel costs and saves money on heating fuel



The area around Minto is heavily forested and could support a bio-mass program. Reduce fossil fuel usage



# Koyukuk - 2021

- Drums shipped out for backhaul
- E-waste backhaul
- New landfill signage
- ❖ Research Bio-Mass project

# Green Star Principles Koyukuk



Divert electronics from the landfill and reduce impacts from potentially hazardous material



Leaking drums removed from barge landing – Reduce impacts and remove hazard from community



Landfill signage informs residents where to segregate waste at the site – better solid waste management



The area around Koyukuk is heavily forested and could support a bio-mass program. Reduce fossil fuel usage

# Tanacross - 2021

- 200+ Appliance Backhaul
- HHW Shed Clean-up
- Solar Project
- Community Garden
- Bio-mass Generator
- ❖ New Landfill



# Green Star Principles Tanacross



100 appliances, Freon removed and backhauled for scrap. Freed up valuable space in scrap metal area. Removed hazards from the tundra. Captured Freon – Green house gas



Garbage removed from shed and material organized. Reduce risk of impacts from material HHW. All HHW backhauled to Anchorage for disposal



Two large solar projects currently being installed in Tanacross. The first will help provide power to the Tanacross Community Center and the second will provide power to the Drinking Water Plant and Tribal Offices.



Bio-mass fuel generator burns local cottonwood, powering the Community Center and Water Treatment Plant to reduce fuel costs and dependency on diesel for power.



# ► For more information

- [www.akforum.org](http://www.akforum.org)
- [www.dbcalaska.net](http://www.dbcalaska.net)

- Contact Green Star Today!
- Accepting applications for 2022 season



**ALASKA FORUM**

**AFE 2017 - Registration!**  
 Online registration services are now available for the Alaska Forum on the Environment, February 6-10, 2017. [Learn More >>](#)

**Rural Alaska Landfill Operator (RALO) Training Schedule:**  
 Next Training November 8-10, 2016. Only a few more spots available! [Learn More >>](#)

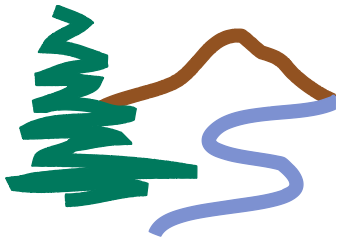
Use Code **"November"** to save \$145 only available until end of this month! [Register Now >>](#)

**Alaska Forum on the Environment, 2017**  
 The Alaska Forum on the Environment will be February 6-10, 2017. Early registration services are now open online through October 15, 2016. Use Code "November" to save \$145 off the regular

**Green Star**  
**Midnight Sun Brewing Company** has earned their Green Star! In addition to their extensive recycling program, they have retrofitted their lighting, modified their process flows to save energy, and applied waste saving techniques.

**Apprenticeship**  
 Employers: Help match apprentices to employment while promoting local hire. Save your business thousands in training costs by working with the Environmental Technician Apprentice Program to find your next employee. [Learn More >>](#)

**Training**  
**Rural Alaska Landfill Operator (RALO) Training:** The RALO Training schedule for 2016-2017 is now available. [Learn more >>](#)  
**Online Environmental Training:** The Alaska Forum offers an extensive lineup of environmental



**Alaska Forum, Inc.**

PO Box 212409

Anchorage, AK 99521

[www.akforum.org](http://www.akforum.org) (Join Green Star Communities)

**Doug Huntman**

Delta Backhaul Company

Cell: (907) 310-3807

Email: [dhuntman@dbcalaska.net](mailto:dhuntman@dbcalaska.net)



# Join Green Star Today!

**Sustainability**

**Recognition**

**Saves money**

**Environmental  
Responsibility**

**Best  
Environmental  
Practices**

*“Recognizing communities committed to environmental  
responsibility”*