INTRODUCTION

Many states and tribes are facing ongoing rural waste management challenges that can pose risks to human health and the environment. This report shares examples of ways tribes and rural communities have addressed these challenges, including efforts to prevent illegal dumping, increase recycling, and promote waste reduction in their communities. In addition to protecting tribal members' health and safety and the environment, managing waste effectively is one important component of protecting natural and cultural tribal resources. Many tribes and local communities have made great strides in both managing waste and in educating members of the community about the importance of finding solutions to these challenges.

HOW TRIBES HAVE STARTED CURBSIDE TRASH AND RECYCLING PROGRAMS

Historically, many tribes have resorted to burning or illegally dumping trash due to the lack of options available to them. Tribes recognize the environmental harm of these practices and many have begun to establish the infrastructure to provide safer alternatives for disposing of trash. Some have taken their waste management strategy a step further and have implemented recycling programs. Some of the hurdles to setting up trash and recycling programs for these communities include the often rural locations and the high cost of running these services.
In 2016, Muscogee (Creek) Nation of Oklahoma started providing trash services and temporary disposal solutions to traditional tribal communities in rural settings with limited waste management options. The tribe now places roll-off trash bins at ceremonial grounds, churches, and other important locations and gathering places within the community. The bins currently service 13 ceremonial grounds and 88 churches. The trash bins are not permanently located at all of the sites, but are made available during large events.

Since starting to provide trash services, the tribe has seen a considerable reduction of trash dumping on the main roads and off of bridges. In 2018, Muscogee (Creek) Nation collected a total of 338 tons of waste that was disposed of at a landfill rather than being illegally dumped or burned. An EPA grant initially funded the effort, but once the grant expired the tribe began providing funding because of the demonstrated value of offering trash services.

The Santo Domingo Tribe of New Mexico began developing and implementing its first recycling program in 2014 with help from an EPA General Assistance Program (GAP) grant. Prior to this, the tribe only had a solid waste program. And while this curbside pickup program decreased trash burning and illegal dumping, the tribe wanted to make its waste management program even more sustainable by adding recycling.

The tribe used the grant money to purchase recycling trailers and other necessary materials to establish the program. They also repurposed an old refuse truck to use as a recycling truck. Residents can now drop off recyclable materials free of charge at the tribe's transfer station or in one of the recycling bins located throughout the tribe's program offices. Tires, furniture, and some electronics can also be dropped off at the transfer station for a fee. The tribe also bought two waste oil heaters that will use motor oil collected from residents to generate heat for the workshop during the winter months.

The Santo Domingo Tribe has continued to receive GAP funding to run the program. And while residents do take advantage of the recycling program, the tribe continues to look for ways to increase participation and support from residents. The tribe hopes that continued education and outreach will help residents understand the importance of using the recycling and waste management systems to be better caretakers of the land.

The Choctaw Nation of Oklahoma established its first recycling center in Durant in 2010, making it the only recycling facility within an over ten county area in Southeastern Oklahoma. The Durant Recycling Center received funding through the U.S. Department of Energy's Energy Efficiency and Conservation Block Grant. In 2012, the tribe received a grant from the Department of Health and Human Services Administration for Native Americans to open its second recycling center in Poteau. These two facilities combined service 150 roll off recycling bins and have recycled over 20 million pounds of trash that would have otherwise ended up in landfills or open dumps.

Both facilities are open to the public so any individual or city can drop off recyclable materials. Additionally, in 2016 the tribe formed a recycling partnership with the nearby City of Durant. The City of Durant had long considered starting a recycling program, but lacked the resources to fund it. The City of Durant repurposed six old dumpsters as recycling bins, and the Choctaw Nation will service the bins and bring the recyclables back to its facilities. This partnership provides a cost-effective solution for the city.
Beyond offering trash and recycling services to residents, tribes have taken a variety of other approaches to address illegal dumping. Some have created solid waste management codes, others have focused on educating the community, and one tribe even partnered with a local city to host a recycling event for residents to drop off their bulk trash at no cost.

The Santo Domingo Tribe of New Mexico partnered with the San Felipe Pueblo and Pueblo de Cochiti to develop a five-point plan to curb illegal dumping, abate six dumpsites (two per pueblo), develop surveillance and monitoring of the dumpsites once abated, and develop an outreach and education campaign to change the cultural mindset. To fund this work, the tribe received a 2016 New Mexico Recycling and Illegal Dumping (RAID) grant. Over 70,000 pounds of materials were removed from the 6 dumpsite abatements.

The Santo Domingo Tribe also received a 2018 RAID grant to develop digital stories and create effective messaging about illegal dumping on tribal lands. The tribe plans to host two digital story telling workshops for the twenty-two pueblos and tribes in New Mexico with a focus on curbing illegal dumping. The tribe also used the grant to start a campaign with the slogan, Respect Our Pueblos, Only YOU Can Prevent Illegal Dumping.

The Yomba Shoshone Tribe of Nevada created a solid waste management ordinance to help combat illegal dumping and ensure waste is properly managed on the reservation. The ordinance establishes the solid waste management standards, how the enforcement process works, and the fines for each violation.

Tire & Electronic Waste Recycling Events

The Snoqualmie Indian Tribe and the City of North Bend in Washington are working together to keep harmful items out of landfills and prevent illegal dumping. Since 2015, they have partnered to hold an annual recycling event where county residents can properly dispose of tires, appliances, electronics, and other household items for free. This is one of the only events in the area where these items can be discarded at no cost, and the hosts have found the event to be a success. The event is sponsored by the King County Local Hazardous Waste Management Program, the King County Solid Waste Division, and the Washington State Department of Ecology.

Prior to 2015, the Snoqualmie Indian Tribe and the City of North Bend held individual events, but by partnering they could combine resources, continue to offer the event for free, and expand the reach of the annual event. In Washington State, like most states, residents have to pay to properly dispose of tires and other bulk trash items. The hosts hope that residents will continue to take advantage of this free service. To advertise for the event, they send out a flyer in utility bills, reach out to local businesses, and share the event on social media, on the city website, and in the local newspaper.

At the April 2019 recycling event, over 36 tons of materials from 530 vehicles were collected to be recycled. This included 188 tires and over 6,000 pounds of electronics. To ensure proper handling of all of the collected items, the Snoqualmie Indian Tribe and the City of North Bend carefully select vendors that specialize in disposing of each material. For example, the tire vendor, L & S Tires, is a local Washington company that takes scrap tires and uses them in recycled alternatives, keeping tires out of the waste stream and from causing harm to the environment.
Muscogee (Creek) Nation is one of the first tribes to start recycling pharmaceuticals. The tribe regularly participates in National Prescription Drug Take Back Day when community members can safely dispose of their unused or expired pharmaceuticals and prevent them from entering the water supply. This prevents harm to both public health and the environment. Additionally, Muscogee (Creek) Nation has two permanent disposal bins located near the sheriff’s station for free disposal of prescription drugs throughout the year. The company Covanta handles the pick-up of the tribe’s pharmaceuticals. The pharmaceutical recycling initiative has been very successful, and the tribe is disposing of an average of 70 pounds of prescription drugs per month.

The Arkansas Department of Environmental Quality (ADEQ) created the Tire Accountability Program (TAP) to help address the state’s used tire problem. TAP is committed to promoting sustainable and cost effective practices for tire waste reduction, reuse, and recycling. This program is one example of a way that a state can help smaller communities manage waste and challenges around illegal dumping.

As part of this initiative, ADEQ added a new feature to its mobile application where users can find authorized locations and contact information for waste tire collection centers and disposal sites. This makes it easier for Arkansas residents to properly dispose of waste tires. Additionally, in the app you can file a complaint such as illegal dumping with a description of the potential violation. You can also take a photo to add to the complaint. The photo will be geotagged to help inspectors pinpoint the location of a specific complaint. ADEQ's program was featured in an ECOS state innovation video.

**TRIBAL ENVIRONMENTAL EDUCATION & COMMUNITY OUTREACH EFFORTS TO ENCOURAGE BETTER WASTE MANAGEMENT**

While developing solid waste and recycling programs is the first step, ensuring that residents actually participate in the system is necessary for the success of these programs. Many tribes have invested resources into educating members of their communities about these problems and in showing them how to be a part of the solution. To do this, some tribes host trash cleanups, plan community events, and visit schools to educate residents on the importance of waste management and protecting the environment.

The Choctaw Nation of Oklahoma received a $30,000 EPA Environmental Justice grant to teach students about waste management and its effects on waterways. Tribal representatives helped set up recycling programs at schools and taught students how to properly recycle and about the negative impacts littering has on the environment. Additionally, high school students had the opportunity to take a fieldtrip to a waterway to pick up trash and learn first-hand about the impacts.

The Choctaw Nation also encourages recycling outside of this grant-funded project. The tribe hosts an annual Labor Day Festival where attendees can swap 20 aluminum cans for a t-shirt. Choctaw Nation is also a member of Keep Oklahoma Beautiful and participates in the America Recycles Day and the Great America Cleanup events.

The Port Gamble S’Klallam Tribe of Washington formed a group called Sustainable Little Boston (SLB) to promote sustainability among youth and families. SLB hosts outreach events and works with the community to reduce dumping and littering while promoting waste reduction and recycling.

To create excitement and awareness within the tribe, SLB put out a call to local artists to submit logos and images illustrating sustainable activities. The chosen artwork is used on signs throughout the reservation to remind people about the importance of recycling and protecting the environment. The tribe created SLB-branded reusable bags, water bottles, and other items to promote reusing before recycling.
In 2017 the tribe began a series of free classes on traditional practices for the community called “Traditional Sustainable Practices.” The goal of these classes is to provide cultural experiences while engaging tribal members in learning traditional methods of sustainability and to protect our natural resources so that our future generations will have the same opportunities. Through the classes, the community will learn how to harvest, hunt, prepare and preserve in traditional ways without damaging the environment. These efforts combine to promote sustainability, including recycling and reusing, among tribal members.

**Water Cleanups - Trash Free Seas/Keep America Beautiful /Pollution Prevention**

1. The **Coquille Tribe** of Oregon has partnered with the National Oceanic and Atmospheric Administration (NOAA), the Surfrider Foundation, and Oregon environmental organizations to engage youth in community service projects with a focus on prevention and removal of marine debris along Oregon coasts. [Source]

2. The **Makah Tribe** has held beach clean ups along Washington coasts and are working to remove abandoned vessels from the Neah Bay Marina. [Source]

3. In Washington State, the **Quinault Tribe** has partnered with The Nature Conservancy and the National Oceanic and Atmospheric Administration to remove derelict crab pots from tribal waters off the Quinault coast and to develop a sustainable reporting and annual recovery program for lost pots as part of the fight against marine debris. [Source]

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