Tribal Integrated Waste Management Plan

Table of Contents

Chapter 1 Introduction to Waste Management
Purpose and goals of the Tribes' Integrated Waste Management Plan…… Page 2
Overview of other agencies involved…… Page 2
Goals and Objectives of the Tribal Integrated Waste Management Plan…… Page 2-3
Tribal Ancestral Territory and Land Use…… Page 4
Map of Ancestral Territory and Tribes' land holdings……Page 5
Chapter 2 Waste Characterization
Tribal population…… Page 7
Annual Waste generation estimates…… Page 7
Existing systems overview…… Page 7
Chapter 3 Waste Systems Available
Waste Collection and Disposal Goals…… Page 9
Current Collection Systems…… Page 9
Existing Facilities for Garbage and Recycling…… Page 9-10
Illegal Dumping…… Page 10-12
Waste System Needs…… Page 12
Estimated Annual Operating Costs for Waste Management for CTCLUSI…… Page 13
Chapter 4 Recycling
Benefits of Recycling…… Page 15
Recycling Facilities…… Page 15
Tiered Designation of Recyclable Materials…… Page 15-16
Recyclable and Non-Recyclable Materials…… Page 16-17
Recycling Recommendations and Collection…… Page 17
Recycling Goals…… Page 18
Chapter 5 Special Wastes
Household Hazardous Waste…… Page 20-22
Construction and Demolition Waste…… Page 22
Scrap Tires…… Page 23
Chapter 6 Waste Reduction Outreach and Public Education
What is Source Reduction…… Page 25
Reuse…… Page 26
Recommendations for Outreach and Education…… Page 26
Chapter 7 Implementation
Personnel…… Page 28
Program Planning…… Page 29
Funding…… Page 29
Appendices
Federal Guidance Documents Relating to Waste Management Issues for Tribes……Appendix A
Resources for Waste Disposal and Recycling- Coos County……Appendix B-1
Resources for Waste Disposal and Recycling- Douglas County……Appendix B-2
Resources for Waste Disposal and Recycling- Lane County……Appendix B-3
Examples of Waste Prevention Activities……Appendix C
Composting Guides……Appendix D
Examples of Special Waste Disposal and Guides ……Appendix E
Collection Sites for Unwanted and Unused Drugs ……Appendix F
Funding Resources for Waste Management ……Appendix G

Chapter 1
Introduction

Purpose of Integrated Waste Management Plan

This plan has been prepared by the **Confederated Tribes of the Coos, Lower Umpqua & Siuslaw** as a guide to develop and implement an effective integrated waste management program specific to the tribe's needs. The Plan will assist the Tribes with making decisions to improve the lands, air, water, and cultural resources in the Tribes' Ancestral Territory for future generations. This plan includes the identification of existing waste systems and waste reduction strategies, implementation, monitoring and outreach methods.

Federal, State, and Other Agencies Involved

The United States has a unique legal relationship with Tribal governments based on specific constitution, treaties, statutes, executive orders, and court decisions. Under the American legal system, Indian tribes have sovereign powers separate and independent from the federal and state governments. This means that Tribal governments have the same powers as the federal and state governments to regulate their internal affairs, with a few exceptions. For instance, tribes have the power to form a government, to decide their own membership, the right to regulate property, the right to maintain law and order, the right to regulate commerce, and so on.

Because of the unique nature of Tribal sovereignty and specific federal legislation recognition, various governmental agencies are involved in assisting Indian tribes. Agencies assisting tribes with solid waste management needs and concerns are listed in Appendix A.

Pertinent Laws & Regulations

Native American tribes play an increasingly critical role in regulating the environment on Indian lands. *Although tribes are increasing their own regulatory authority, the EPA retains jurisdiction over all pollution sources until a program has been delegated to the tribe*. Indian tribes must qualify for the "delegation" of a program under the various environmental protection laws administered by the EPA. A list of Federal laws and regulations concerning solid waste management issues is included in Appendix A.

State power over activities on Indian reservations generally is narrow. Although tribes are required to follow federal laws and regulations, tribes may incorporate state laws and regulations (when applicable) when addressing environmental issues generally at their own discretion. There is potential for overlap and conflict among tribal, state, and federal regulations.

Tribal Statements and Waste Management Goals

"As a sovereign nation, we honor and look to our ancestors thousands of years of experience on the land, as we guide the Tribes forward for the next seven generations; promoting healthy, successful families; affirming and nurturing our culture, acknowledging our responsibility to the land and the Tribal community."

"The Confederated Tribes have had continuous government of, by, and for the Tribes since Time Immemorial…The Confederated Tribes has the rights and responsibilities of any government to its people and their resources. To this end, the Department of Natural Resources was established to conserve and manage resources on Tribally-held lands and to work with other governments to influence conservation and management of resources throughout the Tribes' Ancestral Territory."

This integrated waste management plan has been developed to provide the tribal decision makers and

members with a set of goals and policies to implement, monitor and evaluate future waste management activities. Based on the mission of the Tribes and the Department of Natural Resources, the following goals and objectives for the Integrated Waste Management Plan have been adopted:

- Maintain and improve Tribal environmental quality
- To complete and update a Tribal Integrated Waste Management Plan that outlines an appropriate balance of waste prevention, reuse, recycling, and disposal.
- Meet waste disposal and recycling needs for Tribal facilities and reduce waste generation
- Develop a waste hierarchy of waste reduction, recycling, composting, and disposal
- Ensure environmental protection through proper disposal of municipal waste, construction and demolition wastes, and other special wastes (household hazardous waste, industrial waste, asbestos, appliances, electronic equipment, tires, motor oil, etc)
- Evaluate cost effectiveness of implementing Tribal Integrated Waste Management Plan
- Develop Tribal Code respective to management and enforcement of an Integrated Waste Management Plan

Current objectives:

- Establish a cost effective and efficient system for managing the Integrated Waste Management Plan
- Obtain funding for expanding waste management services, outreach, and/or facilities.
- Provide easily available and convenient recycling information and/or opportunities and access for Tribal members, Tribal housing, and Tribal government.
- Educate and involve citizens in waste reduction, recycling efforts, and responsible waste management.
- Promote collection services that balance administrative efficiency, cost effectiveness and aesthetics.
- Utilize to the fullest extent possible existing facilities and systems.
- Manage the system to protect public health and the environment.
- Ensure that special wastes are handled, recycled or disposed of in a safe manner.

Future Objectives:

- To improve efficiency, quality, and coverage of waste systems at Tribal government and housing facilities.
- Further promote waste reduction, reuse, and recycling as preferred long-term strategies for reducing the amount of waste disposed in landfills
- Provide additional waste management services and facilities as the need arises.
- Address and support strong enforcement of waste issues.
- Take advantage of alternatives for yard and wood waste and other potentially recyclable materials.
- Work with the Tribal enterprises to reduce waste, improve recycling and integrate composting.
- Continue outreach for reduction of toxic materials in landfill.
- Support environmentally sound waste disposal alternatives for Tribal members.

Description of Lands and Ancestral Lands

The lands of the CTCLUSI Ancestral Territory, encompasses 1.6 million acres of lands at or adjacent to the Pacific Ocean. The landscape ranges from beaches to coastal lakes to rivers to dunes and forests. The area remains relatively low in population density and contains some of North America's most extensive forests. The region contains a diversity of natural resources for industries such as mining, logging, fishing, agriculture, and tourism.

This section contains a general description of the existing land use of the Confederated Tribes of the Coos, Lower Umpqua and Siuslaw Ancestral and Tribal lands. Tribal lands range from urban to rural. Urban areas include the cities Coos Bay, Reedsport, Florence located near the mouth of the Coos, Umpqua and Siuslaw Rivers (respectively). Table 1-3 contains a breakdown of land use on the various Tribal lands.

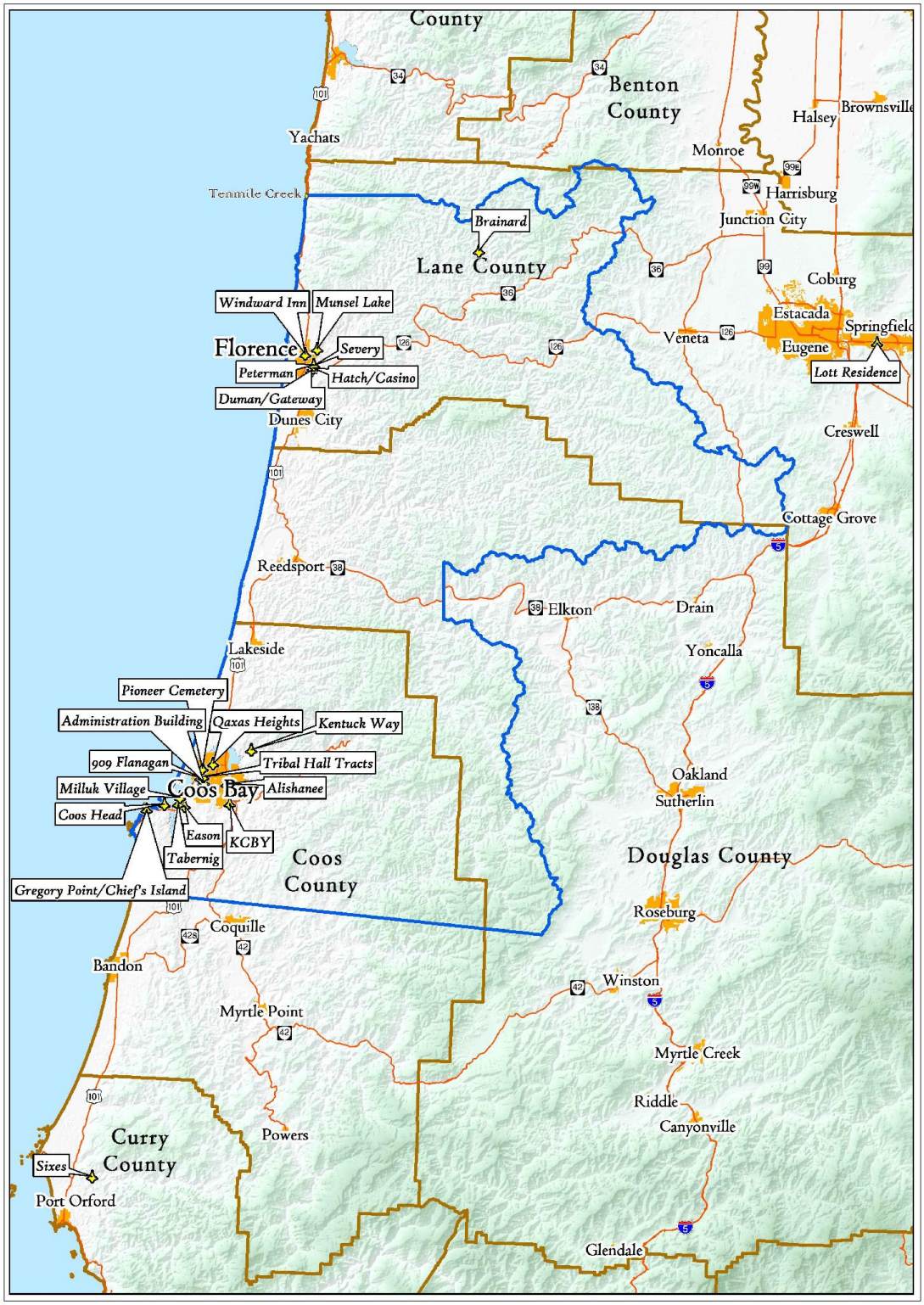
This section of the plan includes a general description of the land use on the reservation, including geography, rural vs. urban nature, and land use types. For this section, the following information should be included:

- General location of development (north, south, east and west)
- General location of rural areas (north, south, east and west)

Land use on CTCLUSI Tribal land (also see map next page)

Land use	Tribal parcel
Casino/Revenue	Hatch, Ocean Dunes
Cultural use/ Lots	Empire (Tribal Hall and Tribal Community Center), Baldich, Flanagan Pioneer Cemetery, Drew Cemetery, Munsel Lake, Miluk Villlage, Kentuck way, Eason, Sixes River, Brainard, Severy,
CTCLUSI Offices	CTCLUSI Administration Offices (Elks), Florence Outreach office (Windward),
Residential Use	California and Connecticut (Qaxas), Hatch (Kaich)
Industrial/ Mixed Use/Other	Alishanee, Kentuck Slough, Coos Head

Note: Table 1-3 is not a comprehensive list. A comprehensive list may be sought through the CTCLUSI through the Department of Natural Resources' Realty Program.



Properties of the Confederated Tribes of the Coos, Lower Umpqua, and Siuslaw Indians

Tribal Property
Ancestral Boundary
Highway
County
City

0 4.5 9 13.5 18 Miles

N:\GIS\arcmap\Property\FacilityMaps\AllProperties.mxd 09/30/2008

This data is for display purposes only. No liability is assumed as to the data delineated hereon.

Chapter 2

Waste Characterization

TRIBAL POPULATION

The total population of CTCLUSI in 2013 is 1051 based on current enrollment records. The table below indicates the breakdown of the current population residing on the identified land use.

Adult Population and Land Use

TOTAL ENROLLMENT (ADULTS)	TRIBAL HOUSING	NEAR TO ADMIN SERVICES*	NOT DEFINED
727	35	294	398

***near to administration services is defined as adults residing in Lane (134), Coos (136), or Douglas (24) counties**

Existing Systems Overview

The existing numbers of members residing on CTCLUSI Tribal lands are 35. Tribal housing residents have garbage and recycling costs paid for by the Tribe.

The majority of waste originating from a Tribal household or government facility (Florence Outreach) or enterprise in the Florence area is collected by Central Coast Disposal or transported for disposal to Florence Transfer Station (see Chapter 3 for more information). The waste from the Eugene/Springfield Outreach waste and recycling is collected by a contractor and transported for disposal or recycling. The majority of waste and recycling originating from a Tribal households (Qaxes Heights), government facilities (Administration Offices) or enterprises in Coos county, is collected by Les County Sanitary and transported for disposal or recycling.

The year-round adult population of the Tribal members is 727; however, CTCLUSI tribe operates the Three Rivers Casino and Hotel and Ocean Dunes golf course located in Florence, Oregon, attract visitors from outside the reservation. As the Integrated Waste Management Program continues to develop, CTCLUSI should strive to better understand and assist the casino and golf course with waste reduction methods and disposal options for these enterprises.

Annual Waste Generation

The calculated waste generation per day per person living in the United States in 2011, based on EPA Municipal Solid Waste webpage[1], was 4.40 pounds and recycling accounted for 1.53 pounds. Using this formula and assuming that Tribal membership acts similarly to the typical US population, the annual waste produced by the Tribe is 1,167,562 pounds.

Population and Solid Waste Generation Projections

YEAR	POPULATION	ESTIMATED WASTE GENERATED ANNUALLY (LB)
2013	727	1,167,562

1 http://www.epa.gov/epawaste/nonhaz/municipal/index.htm

Chapter 3

Waste Systems Available

WASTE COLLECTION AND DISPOSAL GOALS

This chapter presents a description of the existing waste system utilized by CTCLUSI government offices and Tribal housing.

Waste collection systems will be evaluated for their ability to meet existing and projected needs within the framework of the following goals:

- Meet waste disposal and recycling needs for Tribal facilities
- Develop a waste hierarchy of waste reduction, recycling, composting, disposal and incineration
- Ensure environmental protection through proper disposal of municipal waste, construction and demolition wastes, and other special wastes (household hazardous waste, ash, sludge, industrial waste, asbestos, appliances, electronic equipment, tires, motor oil, etc)
- Evaluate cost effectiveness of implemented Integrated Waste Management Plan
- Develop Tribal Code respective to management and enforcement of Integrated Waste Management Plan

These goals were developed to address waste collection needs for CTCLUSI and are derived from the overall Tribal Integrated Waste Management Plan goals identified in ***Chapter 1***.

Collection

Currently Tribal government and Tribal Housing waste is collected by Les County Sanitary, in Coos county, and Central Coast Disposal, in Lane County, depending on the location of the Tribal facility. Waste collected is paid for through Indirect funding (account code 7260).

- Due to lack of funding resources, CTCLUSI will not pursue the option of operating a waste collection facility for waste disposal or recycling
- Tribal members living off Tribal lands are advised to take their recycling to appropriate recycling facilities, such as transfer stations.
- Although there is no recycling facility on CTCLUSI lands, educating Tribal members and Tribal Administration that taking appropriate recyclable materials to transfer stations will help reduce costs for waste disposal and assist in protecting environmental quality and Tribal cultural resources

EXISTING FACILITIES FOR GARBAGE AND RECYCLING IN COOS, DOUGLAS, AND LANE COUNTIES

Transfer Stations and Landfills near to Tribal Lands

Coos County (See Appendix B-1)

- Transfer Stations
  - Beaver Hill Disposal Site and West Coast Recycling and Transfer Station (private business)
- Landfill
  - Beaver Hill Disposal Site

Douglas County (See Appendix B-2)

- Transfer Stations
  - Roseburg. Glide, Reedsport, Canyonville, Myrtle Creek, Yoncalla, Glendale, camas Valley,

Elkton, and Tiller

- Landfill
  - Roseburg Landfill

Lane County (See Appendix B-3)

- Transfer Stations
  - Cottage Grove, Creswell, Florence, London, Low Pass, Mapleton, Marcola, McKenzie Bridge, Oakridge, Rattlesnake, Sharps Creek, Swisshome, Veneta, Vida, Walton
- Landfill
  - Short Mountain

Transfer Facilities

Coos, Douglas, and Lane county transfer stations have recycling facilities on the premises. A general list of permitted and non-permissible recyclables is listed in Chapter 4 table 4-1. Use Table 4-1 as a guide and please contact your local Transfer station to confirm if an item is recyclable (please see the Appendix listed above for phone or location information)

For more info on recycling in the five county Tribal service areas see Chapter 4 or see the url below

County	url
Coos county	http://www.co.coos.or.us/Departments/SolidWaste.aspx
Douglas county	http://www.recyclepower.org/default.asp
Lane county	http://www.lanecounty.org/DEPARTMENTS/PW/WMD/Pages/default.aspx
Lincoln county	http://www.co.lincoln.or.us/solidwaste/
Curry county	no url available at this time
Other counties in OR	http://www.deq.state.or.us/lq/sw/contacts.htm

Compost Facilities

Currently composting is not available at transfer stations. Tribal government does not provide composting services for the government or housing facilities. For information about composting see Appendix D.

ILLEGAL DUMPING

People observing illegal dumping of waste (the action, the presence of improper materials in collection containers, or waste materials dumped in inappropriate locations) on the reservation's property are to notify ***Tribal Police at 541-997-6011 or any of the Tribal Police Officers.***

Actions for Cleanup

To successfully deal with illegal dumping problems, the CTCLSUI has implemented a limited approach for dealing with Cleanup that includes:

- Community Outreach
- Site Cleanup and Monitoring

Community Outreach

Educating tribal members, visitors, and the surrounding community members about how proper waste disposal will help limit future illegal dumping incidents. Tribal members are more likely to support waste management programs if they understand the new waste disposal options and the dangers of open and illegal dumping.

The following measures will be implemented by CTCLUSI to educate tribal members on new waste disposal options and the dangers of open and illegal dumping.

- Tribal Integrated Waste management Plan will be posted on the CTCLUSI website
- A flyer or pamphlet will be produced that reflects the Tribes views of waste management, illegal dumping and trash burning. The flyer or pamphlet will provide resources to Tribal members such as waste disposal sites and contact information for illegal dumping sightings. This material would be available at Tribal Offices and on the CTLCUSI website.
- Contact information regarding illegal dumping reporting will be available on the CTCLUSI website.

Site Cleanup and Monitoring

Site cleanup and monitoring includes planning, budgeting, and implementing monitoring and cleanup projects at current sites and monitoring of these sites for illegal dumping activity and efforts to prevent future illegal dumping. Proper planning is a key element in the success of monitoring and cleanup efforts. CTCLUSI will organize collaborative efforts between Maintenance, Natural Resources and Tribal Police departments to budget, plan and implement monitoring and cleanup activities.

Monitoring of cleaned up sites is crucial to eliminating the occurrence of illegal dumping. When funding permits, signs will be posted along with fencing, landscaping or other barriers to limit site access and discourage future dumping at the site. Standard adhesive backed "decals" warning of the prohibition against and the intent to prosecute unauthorized users could be made available if indirect funding is available.

Surveillance & Control Program

Once policies are in place for actions addressing illegal dumping, program enforcement and measurement are needed for evaluation of how policies are working.

Enforcement

The establishment of tribal codes, ordinances, and regulations related to proper disposal of waste materials are the foundation for enforcement actions against illegal dumping and set the stage for strong support from tribal council members. Beyond that, support is needed to remind tribal members, visitors, and the local community that illegal dumping is prohibited and Tribal Police are available if active illegal dumping is occurring.

CTCLSUI will implement the following enforcement measures as deterrents for illegal dumping.

- ***Tribal resolution that supports the Tribal Integrated Waste Management Plan***
- ***Collaboration of the Natural Resources, Maintenance, an Police departments to implement and update the Tribal Integrated Waste Management Plan***
- ***Development of outreach materials for Tribal members with background information and key points of contact***

Program Measurement

Integral to any program is measurement of effectiveness. CTCLUSI will implement the following methods to measure the effectiveness of deterrents to illegal dumping.

- ***Record of illegal dumping activities***
- ***Annually review accounts of illegal dumping***

Resources

CTCLUSI will promote resources for hazardous waste disposal and community clean-up events.

- ***See Chapter 5***
  - *Example of community hazardous waste clean-up event: http://www.ci.florence.or.us/publicworks/household-hazardous-waste-round*WASTE

SYSTEMS NEEDS

Based on the review of the existing systems used by Tribal housing and Tribal government, and systems employed independently by Tribal membership, CTCLUSI has identified a potential waste management strategy designed to build upon the existing waste and recycling management systems and facilities. The needs are also based on the goals and objectives stated in ***Chapter 1*** of this Plan, and how best to achieve these goals.

A key component of a strong Tribal Integrated Waste Management Program is utilizing a collection and disposal system that is compatible with the existing and future needs of the tribe.

An evaluation of the estimated annual operating costs for waste operations was prepared (see table next page).

ESTIMATED ANNUAL OPERATING COSTS FOR WASTE MANAGEMENT FOR CTCLUSI

Existing CTCLUSI Waste Management collection:	
Administration & Outreach	$ 9400 annual estimate[2]
Housing	$ 9050 annual estimate[3]
***Expansion of CTCLUSI Waste Management:**	
Collection events	$ 8000 annually[4]
Natural Resource	$ 2000 annually[5]
Maintenance	$ 2400 annually[6]
Enforcement	$ 2000 annually[7]

*Expansion of CTCLUSI Waste Management can be assessed based on availability funding through grants or the Tribal General Fund.

Decisions about what materials to collect, as well as the costs and methods to collect, transport, and ultimately dispose of waste materials are all interrelated.

2 Approximate; taken from 2014 draft budget
3 Information from Tribal housing department 2013
4 No collection events currently take place. Cost based on personal communication with Lane County Special Waste Dept 11/06/13 MC
5 Estimate based on workload per month (7)
6 Estimate based on workload per month (20)
7 Estimate based on workload per month (7)

Chapter 4

Recycling

Recycling turns materials that would otherwise become waste back into valuable resources. Collection of recyclables is just the first step in a series of actions that generate a host of financial, environmental, and societal returns. There are several key benefits to recycling, including:

- **Reduces emissions of many greenhouse gases and water pollutants.**
- **Conserves natural resources such as timber, water, and minerals.**
- **Saves energy, promotes efficiency and money spent on energy**
- **Stimulates the development of more environmentally friendly (greener) technologies.**
- **Reduces the need for new landfills and incinerators.**
- **Improves the quality of the environment and natural resources and is often associated with feelings of pride and accomplishment.**
- **Helps sustain the environment for future generations.**

Recycling not only makes sense from an environmental and natural resource standpoint, but also makes good financial sense. Many products are can be made with less cost. For example, creating aluminum cans from recycled aluminum is far less energy-intensive, and less costly, than mining the raw materials and manufacturing new cans from scratch.

Recycling rates can be estimated by using the information on waste production and recycling in Chapter 2. Using this calculation, it can be estimated that the Tribes produce 405,993 pounds of recyclable materials. It is unknown what the ratio of these recyclable materials are added into the waste stream or if they are recycled.

Recycling facilities

Tribal Government and Tribal Housing currently contract out waste/garbage services that include comingled and glass recycling. Counties and local garbage collections generally offer recycling of comingled recycling and glass; often oil recycling will also be offered. Typically recycling is offered at no additional collection cost and is free at transfer stations. By reducing volume of waste, recycling offers an effective way to reduce overall costs of waste disposal for individuals and business. Reducing waste aligns with the mission of the Tribes' Department of Natural Resources to conserve, protect, and restore the natural resources of the Confederated Tribes' Ancestral Territory.

IDENTIFICATION OF RECYCLABLE MATERIALS

Recyclable materials were identified and separated into three tiers using the following criteria:

Tier 1: Local Facilities were identified for all Tribal Service counties[8], materials are readily accepted, most recyclable materials fall into this category.

Tier 2: Materials that can be recycled, but for which there are limitations in the locations that may accept these materials or recycling may only be offered for a limited time. These materials may be dropped off or collected for recycling on an irregular basis, seasonally, at special events, or at selected locations as feasible or necessary.

Tier 3: Materials for which recycling may become feasible in the future. Although some facilities do exist in Oregon most do not regularly accept these items.

---

8 Curry county transfer stations have limited recycling

TIERED DESIGNATION OF RECYCLABLE MATERIALS

The identified list of materials by tier is presented below:

TIERED DESIGNATION OF RECYCLABLE MATERIALS

TIER 1: READILY AVALIABLE	TIER 2: LIMITED RECYCLING	TIER 3: LIMITED RECYCLING AVALIABLE
Comingled Recyclables[9]	Large metal	Non-Vehicle Batteries
Glass	Ferrous Metals	Styrofoam
Corrugated Cardboard	Motor Oil	See Table 4-2
Yard Debris	Vehicle Batteries	
See Table 4-2	Tires	
	See Table 4-2	

Permitted and non-permissible recyclables is listed in Table 4-2 and 4-3. Use the tables as a guide and please contact your local Transfer station OR check the recycling appendix to confirm if an item is recyclable.

Table 4a

List of recyclable items

paper	newspaper office paper cereal boxes/ other paper food boxes magazines paperback books
cardboard	corrugated cardboard
plastic	plastic bottles 1-7 cottage cheese/yogurt containers and like NO LIDS
glass	brown glass bottles green glass bottles clear glass bottles
metal	Aluminum cans Tin cans
other	car batteries used motor oil- (disposal site may have limits) metal scraps paint (at some sites) flower pots (at some sites)

9 Comingled recycling is defined as recyclable plastics, metal cans, and low grade paper; see Chapter 2 definition.

List of NON-recyclable items **Table 4b**

paper	NO paper towels NO paper plates NO hard bound books
plastic	NO styrofoam NO plastic take out containers **NO plastic bags** NO plastic cups, plates, utensils NO bubble wrap NO prescription vials NO plastic trays (bakery, meat etc) NO plastic lids NO grocery "clamshells" like ones for berries or cherry tomatoes NO plastic toxic containers (antifreeze, oil, syringe, etc)
glass	NO dishes NO pyrex NO light bulbs NO mirrors NO windows NO drinking glasses
other	NO greasy metal NO plastics with food residue NO sharp metal NO needles or syringes NO metal toxic containers (antifreeze, oil, syringe, etc) NO Hazardous materials

RECYCLING RECOMMENDATIONS

Tribal members are encouraged to take recyclables to a transfer station or recycling center near their residence or business. CTCLUSI will promote recycling events taking place in Coos, Douglas and Lane counties on the CTCLUSI website and/or at Administration and Outreach offices. Please see Appendix and Chapter 3 Transfer facilities and Landfills for existing garbage and recycling facilities.

COLLECTION

Tribal Housing Residents are responsible for placing their recyclables at curbside for collection on their assigned days.

Tribal members living outside of Tribal housing must either take their recyclables with their other waste, to appropriate disposal facilities see Chapter 3 or inquire about recycling with their garbage collection provider. While some Tribal members live in remote areas with limited access to disposal or collection facilities, Tribal members are discouraged from burning because of potential health risks and environmental. Additionally

many items are not legal to burn in the state of Oregon[10] or Tribal lands[11]. Tribal members who continue or insist on burning illegal materials or off season are in violation of applicable laws and at risk for citation from local, state, or Tribal police

RECYCLING GOALS

The following goals have been adopted by CTCLUSI to enhance recycling.

- ***Meet and improve recycling needs for the Tribal facilities, including housing***
- ***Develop a waste hierarchy of waste reduction, recycling, composting, and disposal***
- ***Develop outreach***

Improving Recycling Programs

CTCLUSI has determined that existing recycling programs could be improved by outreach to CTCLUSI Tribal members and Tribal Administration. This would increase the effectiveness of the overall waste management system and potentially reduce costs. The Natural Resources department will work with the Maintenance department and

Outreach and Community Involvement

For a recycling program to remain successful, the Natural Resource department must ensure continued awareness of the program including types of materials collected and proper methods to be used for recycling the various materials. Resources to aid in this approach include techniques such as flyers and brochures, workshops, print ads, and presentations. Further information on outreach and education can be found in Chapter 6.

Program Monitoring

The recycling coordinator will continually monitor the recycling program to identify any needs or deficiencies and obtain tribal council support to address and manage these areas. Methods the tribe will use for monitoring and evaluating the effectiveness of the recycling program are described below.

10 http://www.deq.state.or.us/aq/burning/openburning/openburn.asp
11 No Tribal Code currently exists for this (11/30/13 MC)

Chapter 5

Special Wastes

SPECIAL WASTES

Wastes that require special handling or consideration when it enters the waste management system are labeled special waste. These wastes may include, but are not limited to:

- Hazardous Waste (HW)
- Construction and Demolition (C&D) Debris
- Electronic Wastes (E-Waste)
- Tires
- Asbestos Wastes
- Vehicle Fluids
- Petroleum Contaminated Soil
- Medical/Infectious Wastes
- Veterinary Wastes
- Liquid Wastes

As a beginning point for this Tribal Integrated Waste Program, only some of the Special wastes listed above will be addressed in this Chapter.

HOUSEHOLD HAZARDOUS WASTE

Examples of Household Hazardous waste:

- **Cleaning Products**: Oven cleaners; drain cleaners; wood and metal cleaners and polishers; toilet cleaners; tub, tile and shower cleaners; bleach; pool/hot tub chemicals
- **Indoor Pesticides**: Flea repellants and shampoos; ant sprays and baits; bug sprays; moth repellents; mouse and rat poisons and bait; houseplant insecticides; cockroach spreads and baits
- **Automotive products**: Motor oil; fuel additives; carburetor and fuel injection cleaners; engine coolant (antifreeze); starter fluids; automotive batteries; transmission and brake fluid; air conditioning refrigerants
- **Workshop/Painting supplies**: Adhesives and glues; furniture/paint strippers; stains and finishes; paint thinners and turpentine; oil or enamel based paint; photographic chemicals; fixatives and other solvents
- **Lawn and Garden Products**: herbicides, insecticides, fungicides/wood preservatives
- **Miscellaneous Flammable Products**: Propane tanks and other compressed gas; gas cylinders; kerosene; home heating oil; diesel fuel; gas/oil mix; lighter fluid
- **Miscellaneous:** Batteries (non-rechargeable lithium ion); mercury thermostats or thermometers; fluorescent light bulbs; florescent

HHW can harm the environment and human health if it is not properly handled and disposed.

- **Product Use** – Some pesticides, when used improperly (for example, at high application rates), may enter surface waters and kill aquatic life and contaminate drinking water
- **Product Storage** – Improperly stored products can result in accidental poisonings of children and animals. Similarly, storage of flammable products (solvents, fuels, oil-based paint) in homes may start fires, add to the fuel load of buildings, and endanger firefighter safety

- **Waste Handling** – There have been several reported incidents at waste facilities where collection workers have been injured or endangered as a result of hazardous waste disposal from households. For example, some pool chemicals are highly reactive and can release a poisonous gas. Alternatively, flammable products may ignite inside the collection vehicle or disposal facility
- **Product Disposal** – Many hazardous products, unless segregated and collected separately from other wastes, can damage the environment, including contamination of soil and water, and pollution of air. Environmental damage can occur in several ways, including direct releases to the environment (dumping outside), releases from disposal sites (landfills and incinerators), and releases from wastewater treatment facilities. Used oil dumped on the ground, automotive batteries thrown in a roadside ditch, and herbicides dumped down the storm drain are all examples of direct releases that may harm the environment. Even disposal of some types of HHW in lined landfills can result in environmental damage. For example, mercury disposed of with regular garbage will eventually leach out of the landfill. If collected, the leachate is typically treated on-site or sent to a wastewater treatment facility. In either case, the mercury is eventually released back into the environment.

Existing Programs

Household Hazardous Waste (HHW) collection programs ensure hazardous materials are properly handled and sent to facilities designed to treat or dispose of hazardous waste. CTCLUSI does not currently have a HHW collection program. Although, counties throughout Oregon do hold periodic events throughout the year or provide curbside collection for some HHW products like motor oil or batteries. Tribal members and Tribal Administration is encouraged to contact county special or hazardous waste departments to inquire about programs. Tribal Administration will work with counties to get the word out about collection events and post materials on the CTCLUSI website.

Contracted Services and Agreements

Many tribes choose to use private contractors for HHW disposal. Contractors hired to manage an HHW collection program are trained in hazardous waste handling and manifesting requirements, and can be available on an as-needed basis. This can be an ideal solution for reservations with periodic collection events which do not require full time staff to manage the program on a year round basis.

Program Development

A goal of the CTCLUSI Tribal Integrated Waste Plan is to minimize environmental and health impacts associated with HHW. Efforts will be directed at educating Tribal members and Tribal Administration about the potential hazards of household products, as well as proper handling and disposal methods.

CONSTRUCTION AND DEMOLITION WASTE

Construction and demolition (C&D) debris is generated by the construction, demolition, and renovation of existing structures, clearing of land, removal or construction of roads and utilities, and other activities that produce bulky wastes. General characteristics, regulatory requirements, landfilling options, and recycling opportunities for C&D debris differ from those for MSW, and therefore, should be managed differently.

Some C&D debris may be classified as hazardous waste because it contains hazardous materials, such as lead or chromium, or has been contaminated by other hazardous waste. Hazardous C&D debris must be disposed of in a hazardous waste landfill. Other toxic materials, such as asbestos and polychlorinated biphenyls (PCBs), must also be managed in accordance with federal regulations, as spelled out by the Toxic Substances Control Act (TSCA).

C&D Existing Practices

C&D debris is generated from a variety of construction and demolition activities. Sources and representative composition are discussed in this subsection. Depending on the type and amount of activities occurring on a reservation, the amount of C&D debris generated can vary greatly.

Factors affecting quantities of debris generated, collected, and disposed of include the type of construction (i.e., office buildings, recreational facilities, and housing) and the type of project (i.e., new construction, remodeling, renovation, road repair).

CTCLUSI has had a variety of construction projects that have taken place on Tribal lands over the past decade. A few examples of past and current projects are: building a casino and hotel, renovations to Tribal Administration and Outreach offices, renovations of a golf course, and acquisition and clean-up of a government surplus property at Coos Head. CTCLUSI uses private contractors for the disposal C&D debris. Tribal members and contractors must transport all C&D debris off Tribal lands for disposal at county transfer stations and landfills.

Surveillance and management of contracted services is crucial to confirming proper waste disposal.

Program Development

The major potential benefits of C&D debris recycling are to reduce the cost of materials used in construction and to reduce the volume and cost of disposal of waste materials. Other benefits that can be gained through waste management include a more accurate prediction of waste generation rates for building projects, increased revenue from the sale of the recovered materials, and the conservation of valuable natural resources.

CTCLUSI has selected the following options for future considerations and/or implementation:

- ***Development of C&D materials disposal methods for contracted services***
    - Inclusion of methods in Request for Proposals for construction, renovation, or demolition activities contracted by the Tribes
    - Surveillance of contracted disposal services
- ***Development of materials recovery approach that reduces the creation of C&D waste and subsequent costs***

SCRAP TIRES

Scrap tires are generated from passenger cars, trucks, or farm equipment when tires are changed because they are worn or damaged. Often scrap tires are accumulated by commercial businesses that sell or change tires. Scrap tire piles are not treated as hazardous waste.

A tire's physical structure, durability, and heat-retaining characteristics make tire stockpiles a potential threat to human health and the environment. The curved shape of a tire allows rainwater to collect and creates an ideal habitat for disease carrying pests such as rodents and mosquitoes. Prone to heat retention, tires in stockpiles also can ignite, creating fires that are difficult to extinguish and can burn for months, generating unhealthy smoke and toxic oils. Illegal tire dumping pollutes ravines, woods, deserts, and empty lots. However, once a tire fire occurs, tires break down into hazardous compounds including gases, heavy metals, and oil, which may then trigger other cleanup requirements.

Tire Existing Practices

CTCLUSI does not have an existing Tire recycling program. CTCLUSI encourages proper tire disposal. Proper disposal occurs when the new tires are put on a vehicle (and old tires are taken by the company selling new tires); Tribal and community members can often drop off a limited numbers of tires at transfer stations or recycling centers. Tribal members are encouraged to call their county Special Waste department to inquire about tire collection days (which may coincide with HHW collection).

Contracted Services and Agreements

CTCLUSI may choose to use a private contractors for scrap tire disposal. Contractors hired to manage scrap tires collection and disposals are trained in hazardous waste handling and manifesting requirements, and can be available on an as needed basis.

Program Development

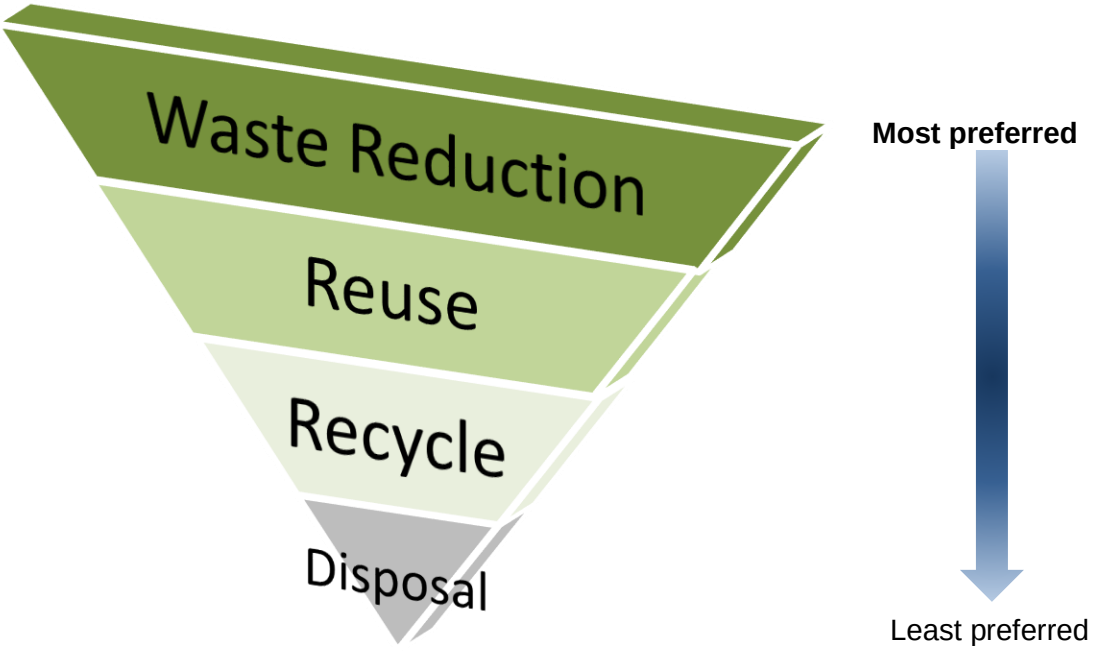
- CTCLUSI will manage surveillance of contracted services for scrap tire disposal.
- CTCLUSI may look to state or federal scrap tire programs for financial assistance to fund clean-up on Tribal Lands or hold scrap tire collection events.
- There are a variety of uses for scrap tires instead of disposal. Scrap tires may be recycled and produce products such as floor mats, boat bumpers, agricultural and horticultural applications, sports and playing fields and tracks, playgrounds, to name a few. CTCLUSI will consider and encourage recycling when managing the disposal of scrap tires

Chapter 6

Waste Reduction Outreach and Public Education

WASTE REDUCTION

Waste reduction includes both waste prevention and reuse. Recycling is also a form of waste reduction. The following figure highlights preferred ways to manage waste, reduce environmental degradation due to waste, and manage costs.



Source reduction is defined as the practice of designing, manufacturing, purchasing, or using materials in an effort to reduce waste volume or toxicity. Source reduction approaches waste reduction by addressing the origins of waste generation. Producing a new product requires materials (raw or processed) and energy (through extraction, processing or transport of the materials or product). Consequently, reduction and reuse of products have been recognized as effective ways to conserve natural resources, protect the environment, and save money.

Reuse is defined as using objects or materials over again, or finding new uses for them so they are not thrown away. Reusing items reduces waste at the points of use because it delays or avoids their entry into the waste collection and disposal system. Examples of reuse include crushing broken-up concrete and using it as an aggregate for road base and reusing empty food jars to store food, nails, buttons, etc.

CTCLUSI recognizes that the most effective way to reduce waste is to not create it in the first place.

SOURCE REDUCTION

To have a successful source reduction program, Tribal employees and Tribal members need to be trained in source reduction and promotion of reduction methods needs to take place. Practicing source reduction can achieve cost savings through reduced purchasing costs and lower waste collection, transportation, processing, and disposal costs.

- CTCLUSI does not currently implement any source reduction strategies.
- CTCLUSI will work to develop goals and integrate source reduction strategies
- When developed, waste reduction goals and strategies[12] will be included in the Tribal Integrated Waste Management Plan and if applicable the Employee Handbook
- CTCLUSI will work to promote waste reduction through outreach and education

REUSE

Reuse is preferred to recycling because the materials do not need to be reprocessed before they can be used again. Items normally discarded as waste—such as appliances, furniture, office supplies, clothing—can be reused as originally intended or as used products. Reuse is a good alternative to disposal for materials for which recycling facilities are located too far away.

- CTCLUSI maintains a formal reuse program whereby used sheets and towels and sometimes furniture, from the Tribes' casino, are available to Tribal members without cost.
- CTCLUSI has not established a budget for public education and outreach materials to waste management, recycling or waste reduction
- CTCLUSI will work to promote reuse of items through outreach and education[13]

RECOMMENDATIONS

To improve waste management and to increase recycling, reuse, and source reduction, the Natural Resource Department along with the Tribal Administration will work to develop and implement waste management practices and improve outreach, education, and training regarding proper waste disposal methods. Waste reduction methods and benefits will be evaluated when time and funding permits. CTCLSUI may explore funding opportunities to implement or expand waste management services.

12 Examples of source reduction and reuse strategies are available in the TSWAN Integrated Solid Waste Management template

13 Examples of education and outreach methods are available in the TSWAN Integrated Solid Waste Management template

Chapter 7

Implementation

IMPLEMENTATION OF THE TRIBAL INTEGRATED WASTE MANAGEMENT PLAN

Tribal Administration and Natural Resource Department will work together to manage and implement good Tribal waste practices outlined in the Tribal Integrated Waste Plan. When applicable Tribal Police may be another source of management and implementation of the Tribal Integrated Waste Plan. Tribal Council will work with Tribal Administration, Natural Resource Department, and Tribal Police to ensure that practices improve and maintain the quality of land, air, water, and cultural resources in the Tribes' Ancestral Territory for future generations. This plan includes the identification of existing waste systems and waste reduction strategies, implementation, monitoring and outreach methods.

Tribal Personnel & Responsibilities

The roles and responsibilities of waste management are diverse and complex, will continue to grow and adapt as the Tribal Integrated Waste Management Plan develops and grow.

- **Tribal Administration**
  - Budgeting- anticipates revenues/losses from disposal fees and grant funds
  - Website resources- provides IT assistance for posting information on CTCLUSI website
- **Natural Resources Department**
  - Operation—develops , manages, and monitors Tribal Integrated Waste Management Plan
  - Produces and updates outreach material
  - Provides and updates resources for waste management to post on the CTCLUSI website
- **Tribal Police**
  - Enforcement and investigation of issues related to illegal dumping on Tribal lands
  - Resource for Tribal members to contact regarding inappropriate waste disposal, illegal burning activities, and pharmaceutical disposal.

Needs

To expand and grow waste management it may be necessary to seek out funding to assist personnel costs or provide additional services.

FINANCIAL OBLIGATIONS AND FUNDING

The major costs associated with managing waste include[14]:

- Program planning
- Facility design and construction
- Equipment purchases
- Cleanup
- Operation and maintenance
- Personnel training and administration
- Landfill closure and post-closure care

---

14 USEPA Tribal Decision-Maker's Guide to Solid Waste Management

Program Planning

Funding is needed to assist with implementation of the Tribal Integrated Waste Management Plan. Initial implementation costs include: wages for staff associated with waste management; production of outreach material; contracting services for waste collection or disposal to name a few.

Funding Assistance

There are two primary sources of funding for implementation of waste management through the Tribal Integrated Waste Management Plan.

- ***Indirect or tribal general funds***
- ***Grants or loans from state or federal agencies (or private organizations that provide grants to Indian tribes for waste and other environmental programs).[15] See Appendix***

CTCLUSI should speak directly with regional agency representatives from EPA, HIS, BIA, USDA, and HUD to inquire and secure funding for waste management projects. In many cases, talking with other tribes may provide additional resources for implementation of the Tribal Waste management Plan or expansion of current waste management techniques.

15 See the USEPA's , Office of Solid Waste and Emergency Response document: Grant Resources for Solid Waste Activity in Indian Country,

Acknowledgements:

This Tribal Integrate Waste Management Plan was adapted from a template developed by the Tribal Solid Waste Advisory Network (TSWAN) to suit the current needs of CTCLUSI. As TSWAN members, CTCLUSI is grateful for the resources, training and guidance that TSWAN has and continues to provide for CTCLUSI.