

# Illegal Dumping in the Middle Fork of the Willamette

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# 1 EXECUTIVE SUMMARY

Illegal dumping is a serious problem in the Middle Fork of the Willamette Watershed region. Illegal dumping is detrimental to the health of humans and the environment, and places a monetary burden on land agencies currently responsible for dump site cleanup.

The illegal dumping project team researched illegal dumping in the Middle Fork of the Willamette Watershed. A physical survey of dump sites on Oregon State Park, U.S. Army Corps of Engineers, and U.S. Forest Service land was conducted. Ninety dump sites were discovered and documented. Eight dump sites were found on Oregon State Park land, thirty were discovered on U.S. Army Corps of Engineers land, and fifty-two were found on U.S. Forest Service land. These dump sites varied by severity, location, estimated cleanup time, size, and composition of dumped items. Most dump sites were either low or moderate in severity.

Interviews of land agency staff members were conducted to obtain additional information about the local illegal dumping problem. Interview questions focused on dump site composition, cleanup, enforcement, and prevention methods. The illegal dumping project team found that dump site composition, location, and size vary seasonally and by agency. Illegal disposal of household bags of garbage in park receptacles is the primary illegal dumping problem on State Park land. Dump sites on Army Corps and Forest Service land tend to be more severe and often require additional cleanup resources. Agencies are generally responsible for dump site cleanup on their lands, but sometimes hire additional help to clean hazardous waste sites and difficult to remove items (e.g., abandoned vehicles or large appliances like washing machines and refrigerators). The Forest Service hires summer work crews to help maintain their lands. Illegal dumpers can receive fines for illegal dumping, but citation issuance varies by agency. Oregon State Park rangers can only issue illegal dumping citations if the illegal dumper is caught in the act of dumping. Army Corps and Forest Service rangers can issue much steeper fines, some ranging up to \$5000, depending on the location and type of disposal offense. To prevent illegal dumping, park rangers often erect barricades or gates to eliminate access to roads frequently used for that purpose. Signs are sometimes posted, but most interviewees did not find signs to be a successful dumping prevention method. Interviewees universally emphasized that children learn the behavior from their parents, and economic factors motivate people to dump illegally. Most also felt that education directed at the public (especially youths) about the harmful aspects of illegal dumping would help combat the problem.

Case studies of four non-profit organizations working against illegal dumping were conducted to gain additional information about what can be done to mitigate illegal dumping. Vermont's Adopt-A-Site, New Jersey's Gloucester County Clean Communities, the Michigan Coalition for Clean Forests, and Pennsylvania's PA CleanWays have implemented successful programs to combat improper waste disposal in their communities. These organizations incorporate site adoptions, beautification, cleanup of land, and education into their proper disposal programs.

After researching the local illegal dumping situation and the dumping solutions of other communities, the illegal dumping team recommended that agency collaboration, dump site cleanup, site adoption, public education, and land monitoring be incorporated into future local illegal dumping mitigation activities. We recommend creation of an online interactive database to facilitate individuals and community organizations interested in cleaning individual sites or long-term area adoption. Grants were researched to provide potential funding resources for agencies to implement these recommendations.

## 1.1 Terms of Reference

**Active dump site:** *A site with an ongoing illegal dumping problem. These sites are repeatedly targeted for illegal waste disposal, often because they are easy to reach and hidden from sight. Sites recorded as “active” show signs of recent dumping in contrast to overgrown, decaying sites that are recorded as “inactive”. If indistinguishable, the sites are labeled “unknown”.*

**Cleanup Time:** *Estimated time in hours for one person to remove all the trash present at a dump site. Estimations are based upon amount of trash, dispersal area, complicating factors (such as slope and overgrowth), and ease of access.*

**Citation:** *A ticket issued by agency staff to a person who is improperly disposing of waste, which often includes fines and/or a court appearance. The threat of citations can deter some people from illegally dumping. Citations can range from \$50 to \$5000 depending on the magnitude and type of dumping offense.*

**Commercial dump site:** *A site that contains waste from a business or agency, as opposed to a household or individual. Commercial sites are usually larger or contain items in greater quantities than is expected with residential dumping.*

**Database:** *A compilation of data collected during physical inventories of dump sites. A database allows one to organize and view data in a way that will enable synthesis and analysis of information.*

**Database inventory sheets:** *Hardcopy versions of the completed database. Inventory sheets are used in the field to collect data, and the information is inputted into the database. (See appendix 10.2)*

**Deterrent:** *Something intended to prevent or deter illegal dumping. Examples include: trashcans, signs, rock barriers, gates, and park hosts.*

**Hazardous waste dumps:** *Dump sites that contain dangerous wastes that can have an adverse affect on the health of humans, wildlife, and the rest of the environment. Hazardous wastes can include oil, methamphetamine lab byproducts, and various toxins.*

**Household garbage:** *Trash of the type picked up by weekly garbage collection services.*

**Illegal dump site:** *An area that is not a legally sanctioned disposal site where people dispose their waste.*

**Leachate:** *Liquid produced from the decomposition of waste.*

**Littering:** *Improperly disposing and dropping of trash on the ground, usually consisting of small items: wrappers, bottles, cans, and cigarette butts.*

**Methamphetamine lab dump site:** *A site used to dispose of byproducts from the production of methamphetamine, an illegal drug (also called Meth). Methamphetamine labs can contain dangerous wastes and sharps, posing a hazard for community health and cleanup. Methamphetamine lab waste has been a problem in this project area in the past.*

**Park-generated litter:** *Litter created while recreating at a park.*

**Park Host:** *A park caretaker who oversees the day-to-day public use and maintenance of an Oregon State Park, and often resides on the parkland.*

**Planned dump site:** *A site (usually well known and frequently used) where people specifically come to dump their trash.*

## 1.1 Terms of Reference

**Pull off:** *An area alongside a paved or unpaved road that is widened to allow for complete, off road occupancy of a vehicle or vehicles.*

**Quantity:** *An estimation of the amount of trash present at a dump site. Estimated volumes are based on forty-five gallon utility garbage bags. Estimations assume that about 8 bags equal the load of one full sized pickup truck*

**Recreational dump site:** *A site where wastes created by recreational activities (i.e., target hunting practice, partying, or camping) were deposited at the time of recreation.*

**Recreational litter:** *Litter created by recreational activities including camping and picnicking.*

**Residential waste:** *Waste generated at a home, consisting of furniture, appliances, oilcans, clothing, and other items in addition to garbage bags of trash.*

**Roadside litter:** *Litter discarded along roadsides, often from moving cars.*

**Severity:** *Illegal dump site characteristic that measures overall dump site intensity based on dump site size, composition, complicating cleanup factors, location, and estimated cleanup time.*

**Sharps:** *Illegally deposited needles or other sharp items (e.g., broken pieces of glass).*

**Shoulder:** *The area alongside a paved or unpaved road that is large enough for a vehicle to pull partially off the road.*

**Spur road:** *A usually infrequently used and often unpaved road that dead ends, and often harbors illegal dump sites.*

**Tipping fee:** *An extra fee charged at a waste management facility for the disposal of a particular item or substance.*

**Transfer station:** *A satellite waste management facility designed to facilitate local collection of waste and recycling products for transfer to a central waste facility.*

\* Terms of reference can be found in bold text, with corresponding definitions in nearby textboxes, throughout the report.

1.2 Tables and Figures

1.2 Tables and Figures

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## 2 INTRODUCTION

### 2.1 Background

Illegal dumping is a serious problem in the southern Middle Fork of the Willamette Watershed Region. Roadside litter, bags of household garbage, tires, yard debris, large residential appliances, automobiles, and hazardous material are improperly dumped on public and private lands. This poses a significant threat to the environment and local residents. Many items are illegally disposed of near seasonal or permanent waterways. In the event of heavy rainfall, chemical pollutants present in illegal dumps can potentially be washed into local watersheds, thus polluting local drinking and recreational waters. Illegal dumping covers the forest floor and hinders natural decomposition processes. Hazardous waste dumps create a health risk to users of public lands; for example, curious children can easily obtain deposited needles, nails, hazardous fluids, and other sharp and dangerous items. Deposited tires, which harbor warm and stagnant water, are likely breeding grounds for mosquitoes possessing diseases like the West Nile virus.

Besides detracting from the health of the environment and local residents, illegal dumping destroys the natural beauty of undeveloped forested areas, decreases property value of local lands, and discourages individuals from visiting these parklands. Illegal dumping is of enormous concern for local residents, taxpayers, and the land agencies that are currently responsible for dump site cleanup.

### 2.2 Project Area

Cities in our project area include Lowell and Oakridge, which reside in Lane County, Oregon. Eugene is the largest city in Lane County, and is located approximately 100 miles south of Portland, Oregon. Lowell and Oakridge are situated south of Eugene, off of Highway 58. This part of rural Oregon is generally composed of forests and small urban and residential areas.

## 2.3 Lane County Waste

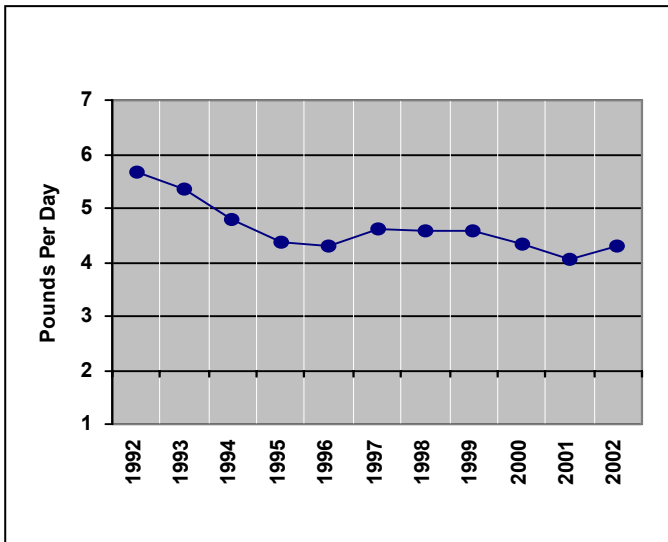


Lane County Waste Management (LCWM) served as an important partnership in this illegal dumping project. Differing from partnerships with land agencies, LCWM offered a behind-the-scenes approach to the illegal dumping problem, providing specific knowledge about correct disposal of waste. LCWM is responsible for legal waste disposal in Lane County. They operate one landfill and several **transfer stations** that are used for the disposal and transferring of waste throughout the county.

Information about **tipping fees** and recycling information at Transfer Stations can be found at Appendix 8.3.2).

**Transfer Station (n):** *A satellite waste management facility designed to facilitate local collection of waste and recycling products for transfer to a central waste facility.*

**Tipping fee (n):** *An extra fee charged at a waste management facility for the disposal of a particular item or substance.*



*Pounds of daily trash generated per person in Lane County. Source: Lane County Waste Management & DEQ Recovery Rate Reports.*

**Figure 1 Daily per capita disposal in Lane County**

Before landfills were available for waste disposal, people simply dumped their refuse in a pile, and moved their community when the pile became a problem. This is still practiced in some rural areas. However, unregulated dumping is no longer a viable option in our current society for several reasons: land ownership is more or less fixed, we cannot simply move away from the problem, and the waste we generate is filled with various toxins and pollutants that can be dangerous to the environment. Landfills now have impermeable liners to keep **leachate** out of groundwater. Unregulated dumping, including illegal dumping, can have severe implications for environmental health.

**leachate n:**  
*Liquid produced from the decomposition of waste.*

## 2.3 Lane County Waste

### **Total collected waste at transfer stations in project area (2001):**

Oakridge: 2,664 tons

Rattlesnake: 1,457 tons

---

4,121 tons

Americans produce more solid waste per capita than any other country in the world. Waste stream composition varies depending on certain cultural factors, such as the extent of industrialization and socio-economic conditions, but about half of disposed waste can be recycled in some way, while the rest can be reused or converted to avoid disposal in a landfill. In the United States, an average of 3.1 lbs of trash per person, per day was

thrown away in 2001. This is up from 2.5 lbs per person in 1960. The 328,150 citizens of Lane County had an average waste generation rate of 7.7 lbs per person in 2002. (Waste Generation=Waste Thrown Away + Waste Recovered). For Lane County, this was 4.3 lbs disposed waste and 3.4 lbs recovered waste. This amount of waste weighs the same as 146,856 Hummers. Lined up bumper to bumper on I-5, these Hummers would stretch from Medford to Seattle.

### **Waste Composition for Lane County in 2000:**

41% Household

43% Commercial

16% Construction/Demolition

A typical solid waste management system has three components: collection, transfer, and disposal. Standards for collection, storage, transportation and disposal of solid waste are set by the State of Oregon, but the systems are managed locally. In Lane County, cities maintain collection systems, while the County controls transfer and disposal of

waste. People in most Lane County areas can choose between a garbage collection service and self-hauling. In the study area, choices of garbage collectors are few. Haulers usually take the garbage they collect from residents and businesses directly to the Short Mountain Landfill, which has been operating since 1976. In rural areas like Oakridge, collectors typically use transfer stations. Garbage is compacted at transfer stations and sent to Short Mountain Landfill, which receives up to 260,000 tons of garbage a year. Two transfer stations are in operation in the study area: Oakridge and Rattlesnake. Other disposal options are available in Lane County. These include the privately owned Delta Sand & Gravel, which accepts demolition and construction debris, including tire shreds, oversized tires, dirt and rock, land clearing debris (e.g. stumps), and inert demolition debris, such as rubble, asphalt, and concrete. Others are EcoSort and McKenzie Recycling, two Material Recovery Facilities (MRFs) in the area. MRFs remove targeted recyclable items from mixed waste received from commercial haulers. Waste that cannot be recycled is sent to Short Mountain Landfill. Various programs and events offered by LCWM are described in the table below.

## 2.3 Lane County Waste

<b>Lane County Waste Management Programs and Events</b>	
<b>2.3.1 On-going Programs</b>	
Master Recycler Training Course	Trains volunteers in solid waste issues and opportunities
Compost Workshops	Teach beginning and advanced topics in composting
Business Waste Audits	Free waste audits to help businesses reduce waste
Curbside Yard Debris Collection	Licensed garbage haulers collect yard debris, which is composted by local processors.
Construction and Demolition Debris	Can be recycled at Glenwood Central Receiving Station, Rexius, and Lane Forest Products. BRING Recycling accepts reusable materials.
Infectious Waste	Sharps can be disposed at all transfer stations and the landfill if they are in puncture-resistant containers.
Household Battery Recycling	Household batteries (nickel cadmium, button and lithium) are collected at all transfer stations & collection events. A battery-recycling program also involves collecting batteries from local businesses
<b>2.3.2 New Programs</b>	
Electronics	A reuse and recycling program will start in July 2004. Fees will depend on difficulty of disassembly and toxicity
Mattress Recovery	Pilot program for the recovery of mattresses designed to maximize reuse, then recycling or incineration
<b>2.3.3 Events</b>	
Computer/Electronics Recycling	5 “computer roundups” have been held to collect computer equipment for reuse or recycling
Reuse-A-Shoe Program	Nike collects used shoes to help construct artificial grass
Hazardous Waste pick-up event	LCWM collects hazardous waste from Oakridge and other rural communities.

More information about LCWM programs and events is available at [http://www.co.lane.or.us/PW\\_WMD/default.htm](http://www.co.lane.or.us/PW_WMD/default.htm)

## 2.4 Land Agency Project Partners

Oregon State Parks, the United States Army Corps of Engineers, and the United States Forest Service land agencies manage land in the project area in the Middle Fork of the Willamette Watershed region. These agencies currently have significant illegal dumping problems. Their land was surveyed (see section 3.0 Physical Inventory), and their staff members were interviewed (see section 4.0 Agency Interviews) for the illegal dumping project. Descriptive introductions about these land agency project partners provide additional background.

### 2.4.1 Oregon State Parks



The Oregon Parks and Recreation Department (commonly referred to as Oregon State Parks) administers land in the Southern Willamette Management Unit in and around Lowell, Oregon. This area includes the parks of Fall Creek State Recreation Area and the Southern Willamette State Parks. Cascara Campground, North Shore Day-Use Park, Winberry Park, and Fisherman's Point Group Camp comprise the Fall Creek State Recreation Area. Elijah Bristow State

Park, Dexter State Recreation Site, Jasper Recreation Site, and Lowell State Recreation Site make up the Southern Willamette State Parks.

Seven people work in the Southern Willamette Management Unit, four of whom are park rangers. Rangers Julie Whalen, Steve Wilson, Paul Tollenaar, and Larry Vaughn monitor Oregon State Park land and have primary responsibility for their area. OSP employee and Team Leader Doug Crispin has field and management duties. Four park hosts also reside in the area. Lee Weller is a park host at Dexter, Rodger and Jo Harshbarger are hosts at Lowell, and a new host at Elijah Bristow has recently been hired. For additional statewide and local information about Oregon State Parks, see appendix 8.4.1.

### 2.4.2 United States Army Corps of Engineers



**US Army Corps  
of Engineers** ®

The United States Army Corps of Engineers manages 9,697 acres, or about 0.33% of the land in Lane County. This land has several uses, including recreation and camping areas, boat ramps, and access areas.

The USACE manages the reservoirs of Lookout Point, Dexter and Fall Creek, and surrounding land. Some USACE land has been leased to Oregon State Parks for management of popular recreation areas. Four rangers are currently employed in the area of our study. Rangers Dustin Bergston, Dan Cotrell, Ken Duncan, and Peggy Marcus are responsible for the general

## 2.4 Land Agency Project Partners

maintenance of USACE land in the area. For additional information about the United States Army Corps of Engineers, see Appendix 8.4.2.

### 2.4.3 United States Forest Service



The United States Forest Service study area for this project is located in the Willamette National Forest, under the Middle Fork Ranger District, whose main office is located in the city of Lowell. The Willamette National Forest is 110 miles long, stretching from east of Salem to northeast of Roseburg. It has many opportunities for recreation, including: camping, biking, hiking, and fishing. There are five employees in the Middle Fork Ranger District who specifically deal with the problem of illegal trash dumping. Employees Gary Burcal, Larry Lassiter, Ernie Ledbetter, and David Murdough were important resources for the illegal dumping project. For more information about the United States Forest Service, see Appendix 8.4.3.



## 2.5 Project Methodology

### 2.5.1 Physical Inventory

A physical inventory of illegal dump sites in the forested land around Lowell, and Oakridge, Oregon was conducted during the weeks of January 12, January 19, February 16, and February 23, 2004. Portions of land administered by Oregon State Parks, U.S. Army Corps of Engineers, and U.S. Forest Service were surveyed. The survey focused on areas that agency staff identified as frequently used for illegal dumping. The eight State Parks surveyed included Elijah Bristow State Park, Dexter State Recreation Site, Jasper State Recreation Site, Lowell State Recreation Site, Cascara Campground, Winberry Park, North Shore Park, and Fisherman's Point Group Camp. The surveyed Army Corps land included the forested area around Dexter Lake, Fall Creek, and Lookout Point reservoirs. United States Forest Service land surveyed included forested areas along Forest Service roads off of Highway 58, between Lowell and Oakridge. Global positioning system (GPS) devices were used to determine the exact map coordinates of illegal dump sites and dumping deterrents. Digital cameras were used to photograph the sites, with special attention paid to distinguishing or unique aspects of dump sites.

The Elijah Bristow, Dexter, and Lowell parks were surveyed on January 16, 2004. The Elijah Bristow boat ramp (Pengra access), North Shore, Fisherman's Point, Cascara, and Winberry State Parks were surveyed for possible illegal dumping on January 21. The Army Corps land surrounding Dexter Lake was surveyed on January 13, the area of Lookout Point on January 17, and Fall Creek on January 21. Forest Service land was surveyed February 16, 20, 22, 23, and 25. The illegal dumping project team surveyed these known sites, and performed a thorough search for additional sites. Many pull-offs, shoulders, and other easily accessible locations were examined for illegal dump sites. Trash dispersed along the edge of main roads often served as clues for discovering dump sites. If an unusual item or amount of roadside litter was seen while driving,

**Surveying teams took special note of items that may provide clues as to why they were illegally dumped.**

surveying teams pulled off to the side of the road and checked the area for possible illegal dumping.

When surveying potential or **active dump sites**, teams searched garbage cans, open park and picnic areas, shrub

and forest areas, sides of cliffs, and edges of roads for illegal dumping. If an illegally dumped item (or items) was detected, information about the location, age, size, and source of the dump site was recorded on a database inventory sheet (Appendix 8.2).

**Active dump site:**

*A site with an ongoing illegal dumping problem. These sites are repeatedly targeted for illegal waste disposal, often because they are easy to reach and hidden.*

Surveying teams took special note of items that may provide clues as to why they were illegally dumped. For example, tires may be illegally dumped because of a tire disposal

## 2.5 Project Methodology

fee at local waste transfer stations. Large and heavy items were noted both because of the associated clean-up difficulty and because their awkward nature might be the reason they were illegally dumped.

Determining whether or not an illegal dump site was **recreational** or **planned** offered clues about the nature of illegal dumping. Finally, surveying teams looked for an overall estimation of how long it might take to clean up illegal dump sites.

**Recreational dump site:** *A site where wastes created by recreational activities (i.e., target hunting practice or camping) were deposited at the time of recreation.*

**Planned dump site:** *A site (usually well known and frequently used) where people specifically come to dump their trash.*

### **Database inventory sheets:**

*Hardcopy versions of the completed database. Inventory sheets are used in the field to collect data, and then the information is input into the database.*

**Database inventory sheets** of recorded dump site information (see Appendix 8.2) were eventually uploaded into a Filemaker Pro database that compiled all illegal dump site information. After all the information was inputted, teams could search the database by a specific category (like type or location of dump site) for further analysis of survey findings.

A separate database was created of all deterrents that appeared to have been installed with the intent of mitigating the illegal dumping problem. This information was recorded to help determine the effectiveness of illegal dumping prevention measures. (See section 3.0 for physical inventory results.)

### 2.5.2 Agency Staff Interviews

We conducted interviews with our partner agencies' employees as a complement to the physical surveys of our partner agencies' lands. Physical surveys are an important part of understanding the illegal trash dumping problem in the project area, but we were only able to conduct one survey for each land agency, and were therefore unable to decipher long term illegal dumping trends through the physical survey alone.

Four key pieces of information were sought in interviews:

- Dump site Composition
- Cleanup of dump sites
- Enforcement policies of our partner agencies
- Prevention efforts

Dump site composition questions enabled us to determine problem spots on partner agencies' lands, what types of garbage they often find, if there are differences in the types and amount of garbage being dumped seasonally, and how the dumping problem has changed in the long term. For cleanup information we wanted to know how much time and money is spent on cleanup of dump sites by the agencies, where the money

## 2.5 Project Methodology

comes from, how much each agency attempts to restore the land to its pre-dump condition, and if the agencies are satisfied with their cleanup abilities. In terms of enforcement we wanted to know what the fines for illegal dumping are, the frequency of citation issuance, and whether the public has any means by which to report illegal dumping. In the area of prevention, we inquired about techniques the agencies use, which have been effective, and whether or not the agencies have done any public education about illegal dumping. Lastly, we wanted to discover what thoughts our interviewees had on why people are dumping trash illegally on public lands, and what they believe could be done to solve the problem. (See section 4.0 for information about interview findings.)

### 3.1 Physical Inventory Summary

## 3 PHYSICAL INVENTORY

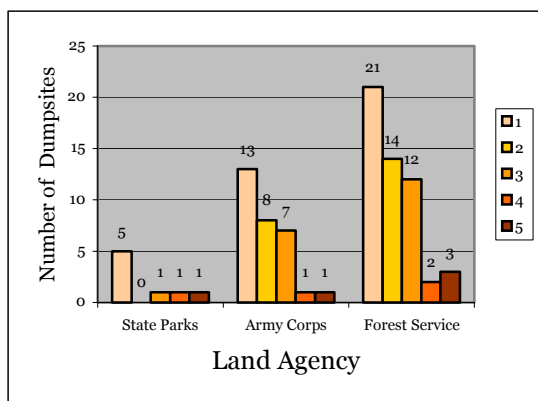
### 3.1 Summary

Ninety total dump sites were discovered on Oregon State Park, U.S. Army Corps of Engineers, and U.S. Forest Service land. Of these sites, 8 were found on State Park land, 30 on Army Corps land, and 52 on Forest Service land (see Table 1).

**Table 2 Number of dump sites by agency**

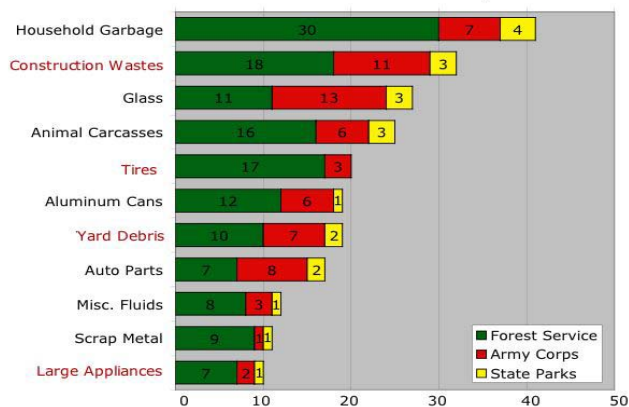
Total Dump sites	
Oregon State Parks	8
U.S. Army Corps of Engineers	30
U.S. Forest Service	52

These dump sites ranged in severity, volume, area affected, potential cleanup time, location and composition. Most dump sites ranged from 1-3 in severity (on a scale of 1-5, with five being most severe; see Figure 2). Volume of dump sites found also varied, with most sites requiring the removal of less than one pickup truckload of garbage (see Table 2).



**Figure 2 Severity of dump sites by agency**

**Common Items Found at Dumpsites**



**Figure 3 Common items at dump sites**

Dump site composition also varied by dump site and land agency. Many different items were found at individual dump sites. Figure 3 displays the deposition frequency of items like household garbage and construction waste. Items that have tipping fees at transfer stations are shown in red text (e.g. construction wastes and tires) at the left of the figure.

### 3.1 Physical Inventory Summary

**Table 3 Quantity of waste at dump sites by agency**

<b>Waste Quantity</b>	<b>Number of Total Dump sites</b>	<b>Oregon State Parks</b>	<b>U.S. Army Corps</b>	<b>U.S. Forest Service</b>
1 garbage bag or less	16	3	8	5
2-5 garbage bags	28	2	6	20
Pick-up truck load or less	28	2	12	14
More than one pick-up truck load	18	1	4	13

Vehicles typically had easy access to dump sites. Dump sites tended to be located near main roads, often down steep slopes. Remote dump sites that would be difficult to access by vehicle were also found. Dump sites on State Park land were rarely found, and were usually limited to litter and the illegal disposal of household garbage in State Park trashcans. Most Army Corps and US Forest Service dump sites contained items that have fees at waste transfer stations.

Case studies of individual dump sites are described in the summary of findings for each agency.

3.2 Physical Inventory  
Oregon State Parks

3.2 Oregon State Parks

3.2.1 Summary of Findings

When surveyed in January 2003, illegal dumping on State Park land was limited to household garbage, recreational litter (generated within park grounds), and roadside litter. No dump sites were found at the Elijah Bristow State Recreation Site, Lowell State Recreation Site, and Cascara campground. The parklands of Winberry, Jasper, and Fisherman’s group

**The disposal of household garbage in park trashcans was the principle illegal dumping problem of State Park land.**

camp were closed at the time of surveying, and therefore were not inventoried for illegal dumping. (Illegal dumping was not detected at these closed and gated park entrances). Of the surveyed State Park land, eight illegal dump sites were discovered and recorded. Dump sites were mainly active and of low severity (see Figure 4). Dumped items were either casually discarded (e.g., park generated or roadside litter) or deposited as planned illegal dumping. Casually discarded litter items included deposit aluminum cans and recyclable and shattered glass. The disposal of household garbage in park trashcans was the principle illegal dumping problem of State Park land, and usually occurred near main roads where dumpers could easily access roadside trashcans (see Figure 5). Commercially deposited construction scraps, animal carcasses, a small number of auto parts, and some yard debris were also found at targeted illegal dump sites in remote areas farther from main roads, but was always in locations easily accessible by vehicle.

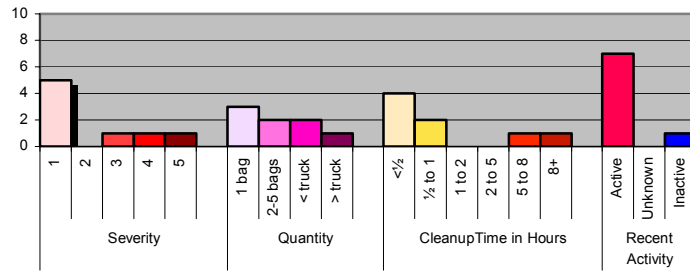


Figure 4 Oregon State Parks dump site severity, quantity, cleanup time, and recent activity.

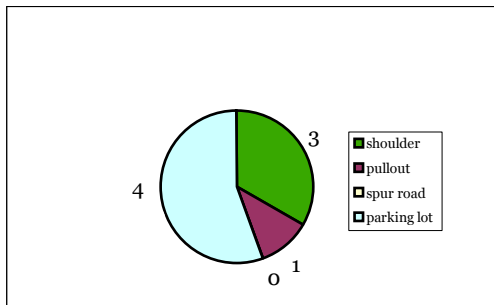


Figure 5 Type of parking at dump sites

The estimated cleanup time for dump sites found on State Park land was a half hour to one hour per site (see Figure 4). Some sites that contained larger items, like concrete construction scraps, had longer estimated cleanup times. Blackberry bushes were the most common factor hindering the cleanup of planned illegal dump sites that contained items other than household bags of garbage. The amount of small and scattered items was also a complicating cleanup factor for park



## 3.2 Physical Inventory Oregon State Parks

generated and roadside litter.

Physical surveying of State Park land was limited to a snapshot effect of only visiting a site once while park hosts and rangers routinely clean up sites (such as household garbage dumps) on a daily or weekly basis, depending on the severity of illegal dumping. Dump site inventory was supplemented with information from park hosts and rangers about actual household dumping occurrences. Household garbage dumping at Dexter State Recreation site, for example, was not observed while surveying the area, but information from the park host about previous illegal dumping was recorded and inputted into the illegal dumping database.

### 3.2.2 Information Obtained From Park Hosts



Park Host Weller discusses illegal dumping

A significant amount of information about the nature of illegal dumping in State Park land was obtained by speaking with two park hosts on January 16, 2004. Park Host Lee Weller, of Dexter State Recreation Site, has not observed a large amount of illegal dumping. Weller's residence is in the center of the park within view of the boat ramp, parking lot, and much of the park's open space. His central location likely discourages many potential dumpers from illegal dumping. For a short while, Weller experienced a problem with the disposal of diapers in a trashcan near the park entrance. In response, he moved the garbage can

further away from the main road and has not experienced the problem since. Besides the illegal disposal of baby diapers, Weller is aware of two separate occurrences of household garbage dumping (possibly motor home garbage) that has taken place in the past seven or eight months. He believes that people know household garbage dumping is illegal, as his very presence reduces the frequency of the act.

Park Hosts Roger and Jo Harshbarger of the Lowell State Recreation Site have also experienced sparse illegal dumping. Household garbage dumping in an onsite dumpster was a problem in April of 2003 (the first month she and her husband were Park Hosts at Lowell). A lock was then installed on the dumpster to prevent the illegal disposal and the problem has since diminished. Harshbarger experiences very little litter as well. The only recent problem she has come across is the stealing of trashcan liners from garbage cans. Harshbarger and husband also live within excellent view of the boat ramp, parking lot, and dumpster. She has seen a drastic increase in the number of local residents visiting the Lowell State Recreation Site during her tenure as host, and believes the cause is the reduced amount of park garbage. She attributes the reduction in the litter problem to the presence of a host in a visible location

## 3.2 Physical Inventory Oregon State Parks

### 3.2.3 Case Studies

#### *Logjam Access: 1-27-04*



Logjam Access is a park at the end of a gravel access spur road with a gravel parking lot, surrounded by a permanent barrier on three sides. A small wooded and overgrown slope is situated on the fourth side of the parking lot, approximately 20 feet from the river. A vault toilet and one trashcan are present. The present trash stretches over 1000 square feet, and is composed of recreational waste (e.g., broken beer bottles, cans, and cigarette butts), as well as residential waste such as roofing shingles, tar paper, metal fencing, auto parts, kitchen parts, and scrap metal. The slope facing the river is nearly carpeted with trash, but a thick layer of leaves makes this difficult to discern. The trash in this location is partially buried from age. Ranger Paul Tollenaar of the Jasper Park office regularly cleans this frequently used dump site. This location is open to the public during the day and night. A gate is present, but is seldom closed.

#### *Generic Household: 1-21-04*



Chant Eicke possesses illegally disposed household garbage.

Trashcans and dumpsters in the parks of Pengra Boat Access, Fall Creek Reservoir, Dexter Park, Logjam Access and Lowell Park, are targets of the illegal dumping of household trash. Commonly dumped items include kitchen waste, automotive parts, construction materials, diapers, and other wastes associated with residential garbage. Our survey team encountered one such dump site at Fall Creek Reservoir. Park Rangers empty the trashcans and dumpster frequently and have reported household dumping at nearly all Park garbage receptacles.

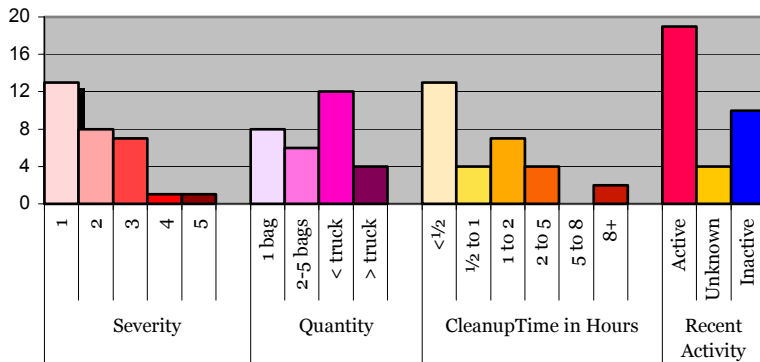
#### *Generic Littering: 1-21-04*

Common roadside littering is present at all surveyed State Parks and public access areas. This problem is noticeably less significant in areas of limited access such as fee and day-use only areas.

### 3.3 United States Army Corps of Engineers

#### 3.3.1 Summary of Findings

A total of 30 sites located on Lookout Point, Dexter, and Fall Creek reservoirs were surveyed for the United States Army Corps of Engineers. Of these sites, at least 19 are active dumping sites. Most of the illegal garbage found is residential in origin. About half of surveyed sites are ranked minor in scale and severity (see Figure 6). Most of the sites are located near recreational areas and pull-offs, and contain a small amount of roadside litter and illegal dumping.



Several different types of dump sites were found, including recreational sites (6), and those composed mainly of roadside litter (7). The majority are planned dump sites (22). Recreational sites were composed of largely shattered and recyclable glass and

aluminum cans. All occurred within the past year, and are still active (see Figure 6).

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A large variety of items, including large appliances, mattresses, furniture, concrete, glass, and aluminum cans, were found in these areas. Christmas trees were also present, reflecting the season of the surveys (conducted in January). The most commonly dumped items were: auto parts (11 sites), lumber and construction scraps (10 sites), eight of which have significant volume that requires utilization of a pick-up truck for waste removal), animal carcasses (6 sites), yard debris (6 sites, 5 requiring a pick-up), and household garbage (6 sites, 4 requiring a pick-up truck).

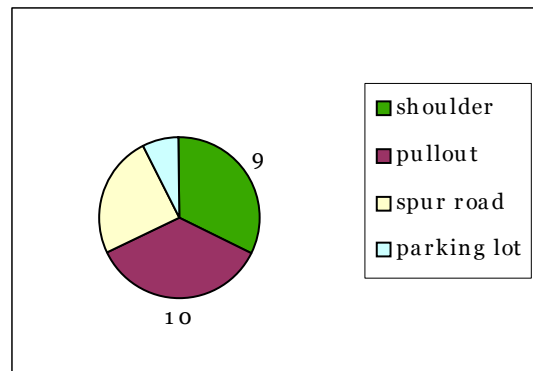


Figure 7 Parking at USACE dump sites

#### 3.3.2 Case Studies

##### *Barricade without Cleanup: 1-13-04*

This site is located on a former access road north of the boat ramp on the east side of Dexter, possibly on private land. It appears that a barricade was installed before the site

### 3.4 Physical Inventory Army Corps of Engineers

was cleaned. The exact age of the site and corresponding permanent rock barricade at the entrance are unknown. The dump site is accessible by foot from the highway, with parking on the shoulder. The site covers over 1000 square feet, and has two overgrown roads diverging on two sides of a small stream. Most of the dumping occurs relatively close to the highway, on both sides of the stream (although not in it).

This site would require multiple pick-up loads and multiple days of cleanup, as well as equipment to remove heavy objects. Present blackberry bushes could impede cleanup. Some key items found include: auto parts, large appliances, lumber and construction scraps, and scrap metal. Some litter is fairly recent, suggesting that the barricade keeps out large-scale items, but not smaller items.



#### *Pullout with Yard Debris, Animal Carcasses and Misc. Items: 1-17-04*



This site characterizes many of the sites found around the three surveyed reservoirs. This particular site is found on Lookout Point on the side furthest from the reservoir. The main road is dirt. There are obviously multiple dumping events, and some roadside littering. Most of the dumped items appear to be residential in origin.

Items found include tires, concrete slabs, lumber/construction scraps, animal carcasses, recyclable glass and lots of yard debris. This site is still active, and would most likely require about 2-5 hours for one person to cleanup. It will likely fill more than one pick-up load. The steep slope and heavy items will make cleanup more difficult.

#### *Flooded Dump: 1-10-04*

This site has been targeted for numerous residential and commercial dumping events. Present trash includes, but is not limited to, mattresses, auto parts, tires, carpet, concrete, fiberglass, a carcass, buckets, plastic, and other construction materials. Several partially buried, overgrown, and waterlogged piles of trash are scattered over the 500 to 1000 square foot area. A possibly seasonal stream flows directly through the center of the dump, dramatically increasing any environmental impacts if



hazardous substances were present. Though there are no obvious hazardous substances in the visible trash, empty five gallon buckets litter the area. Much of the debris is buried. Blackberry, other brush, and grasses have grown over many of the trash piles.



### 3.4 Physical Inventory Army Corps of Engineers

It is evident that the waste continues deep into the soil. No barriers, gates, or other deterrents are present. The site is visible from the main road.

#### *Generic Steep Slope Dump: 1-21-04*

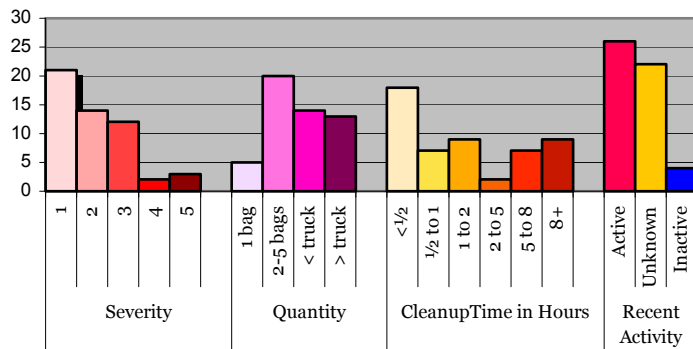


Many sections of the roads, both gravel and paved, surrounding Fall Creek Reservoir have a swift drop-off on the reservoir side. There are numerous dump sites along these stretches, a few of which appear to result from multiple dumping events. Dumped items include: tires, lumber, computer monitors, household garbage, and auto parts. These dump sites are often scattered over a large area and are difficult to approach due to the steep slopes, blackberries, and overgrown conditions. At one site, tires had been rolled off the roadway and could easily have gone several hundred yards or further down the slope, toward the reservoir. Most of these sites appear to contain residential garbage and do not contain large amounts of trash.

### 3.4 United States Forest Service

#### 3.4.1 Summary of Findings

A total of 52 sites were surveyed for the United States Forest Service. The sites were located on USFS roads off of Hwy 58, near Oakridge. Dump site frequency drops sharply after approximately the first mile and a half from the highway. Nearly all the dump sites are over steep slopes where the road curves or is extra wide. These common dumping areas offer maneuverability for large vehicles and plenty of space for dumpers to dispose of trash down slope. Based on the limited volume of each site, we assume that most of the dump sites are from residential sources. Most dump sites were low on the 1 to 5 severity level range, but several severe sites were discovered (three sites were marked at a 5 severity level, two sites were recorded as level 4), (see Figure 8). Two types of sites were typical: household dumping off spur roads or pull-offs, and recreational waste at disperse sites.

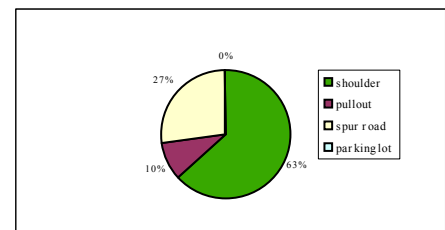


**Figure 8 USFS dump site severity, quantity, cleanup time, and recent activity**

Recreational waste areas were mainly composed of items that people had brought into the area to use as target practice (i.e. clay pigeons, various electronics, etc.) and animal carcasses. All of these sites appear to be active, with some activity in the past year. The most common items found were auto parts (especially tires), scrap metal, household garbage, lumber and other construction waste, and animal carcasses.

Large furniture and appliances comprise the majority of waste at four sites. One dump site is likely from a commercial source due to the large number of appliances, tires, furniture, and mattresses.

These sites ranged from small, one-time dumps, to large-scale dump sites. We speculate that twenty-five of the dump sites could be individually cleaned in less than one hour each. The majority of dump sites are concentrated (twenty-eight sites cover individual areas of less than 500ft<sup>2</sup>). Many of the larger areas do not contain significantly larger volumes of trash, but similar volumes of trash dispersed more widely. Twenty-five recorded dump sites contained small volumes of trash (five garbage bags or less), and twenty-seven dump sites would require at least one pickup truck load of removal. Many of the dump sites are on steep slopes, or are overgrown, which complicates cleanup efforts.



**Figure 9 Parking at USFS dump sites**



### 3.4 Physical Inventory US Forest Service

#### 3.4.2 Case Studies

##### *Recreational Site in Quarry: 2-22-04*

This site is located in a quarry near the entrance to Road 2102 (on the side closer to Hills Creek Dam). The access road to the site is fairly short, but could be impassable at certain times of the year to vehicles that do not have 4-wheel drive or high clearance. It seems to be a frequent hangout for target practice, and encompasses a large area (1000+ square feet). Small pieces of material are spread throughout the area. Some of the items found at this site are: clay pigeons, dolls, electronics, and propane cylinders.

This site would be difficult to clean because of many small, broken items. Broken glass and sharp metal could pose significant risks to those in charge of cleanup. This site seems to be a popular dumping location. Keeping this area clean would be difficult. During inspection people were using the site to shoot at unidentified targets. A locked gate may decrease the large amount of recreational waste.

##### *Large Cliff with Unidentifiable Items: 2-22-04*

This site is located approximately half a mile down Road 5852 (entrance near Hills Creek Dam). The access road is dirt, but is passable to most vehicles. Dumpers seem to park on the shoulder of the road and dump their items down the cliff. The cliff is roughly 50 feet tall, near vertical, and drops into the river below. Items could be seen near the top, part way down, caught in trees and shrubs, and also in the river itself.

Cleanup would be extremely difficult, as a fall off the cliff could result in serious injury (and perhaps even death). Items are overgrown and sometimes located in the swiftly moving river. Some of the items found include: lumber and construction scraps, scrap metal, household garbage, a bike rim and tires, and miscellaneous plastics. Not all the items could be identified, and the frequency of site usage is unknown. It is estimated that the amount of trash would require at least one pick-up load. A guardrail may discourage dumping, but may also impede future cleanups.

##### *Commercial Dump: 2-23-04*



The volume of trash and number of large appliances makes this site the most severe dump site found on Highway 58 Forest Service area. The dump is located off a wide curve on FS road 5835. More than 15 large tires, several large appliances, mattresses, lumber, electronics, and a large amount of household debris (window blinds, a baby chair, and fuel cans), are widely scattered over a 1,000-ft<sup>2</sup> area. The area is steeply sloped. The dump is initially concentrated near the road, but spreads far down the hill. The site appears exceedingly difficult to clean due to the slope, weight of many items, and overgrowth by blackberries and other plants. The number of large appliances and volume of trash lead us to speculate that this dump is commercial in origin. It is difficult to discern the age of

### 3.4 Physical Inventory US Forest Service

the dump. Types of debris present lead us to believe that it is either a single event dump, or that the same person or group of persons is responsible for multiple dumping events.

#### *Site of Opportunity: 2-16-04*

This conveniently located dump site is situated on FS road 5835, just out of sight from Highway 58. The FS road widens about 100 yards off the Highway. A steep slope leads down to Crale Creek on the west side of the wide area. A large bundle of dumped English Ivy (an invasive species that can easily sprout and spread from small clippings) lies on the edge of the road, surrounded by 5 or 6 carcasses that are mostly clean. A large amount of scattered household waste, affecting an area of around 500-ft<sup>2</sup>, is deposited over the edge of the slope. Varied debris, some of which appears to be very old, is scattered down the slope, further along the FS road. This site is representative of many dump sites on FS roads directly off main Highways or other paved county roads where dumpers can pull off the main road, and dump waste in the first convenient location.

#### *Multiple Event Dump: 2-16-04*



On FS road 5833, a dump site is located off a large shoulder/pullout next to a 10-15 ft drop. The turnaround and small slope creates an easily accessible dump site. A wide variety of types and ages of items indicates that this location is the site of numerous dumping events. A dumper has very recently unloaded several hundred pages of paper directly off the short slope. Pieces of lumber and an old broken television lie underneath the paper. Large plastic sacks that once contained organic soil are found further back from the road. 20 to 30 tires, many of which have been partially buried and overgrown, are scattered over 1000 ft<sup>2</sup>. This site is active, and we estimate that the current volume of trash will fill at least one truckload.

## 4 STAFF INTERVIEWS

### 4.1 Summary of all Interviewed Agencies

Five Oregon State Park, five United States Army Corps of Engineers, and four United States Forest Service employees were interviewed. Interview summary reports are organized by agency and into five categories: Dump sites, Cleanup, Enforcement, Prevention, and Further Insight (information pertaining to the general illegal dumping problem, and how to solve it). Individual agency staff interview reports are located in Appendix 8.5.

#### **Dump sites:**

- Dump site composition, location, and size varies seasonally and by agency.
- Illegal disposal of bags of household garbage is the primary problem experienced by Oregon State Parks.
- More significant dump sites occur on U.S. Army Corps and U.S. Forest Service land.
- Commercial dumping can be a problem on U.S. Army Corps land.
- U.S. Forest Service tends to receive the bulk of vehicle abandonment.
- Hazardous waste dumps are rare, but do occur on these agencies' land.

#### **Cleanup:**

- The various agencies generally own and use the same type of equipment used for dump site cleanup.
- Agencies only contract out for dump site cleanup when needed.
- Cleanup crews or additional staff members are sometimes hired.
- Time seems to be the overall factor that limits ability to clean dump sites.
- Cleanup budgets vary by agency.
- None of the interviewed agencies have held or organized a cleanup event, but most interviewees feel it would significantly aid in cleanup efforts and help prevent future illegal dumping and littering.

## 4.1 STAFF INTERVIEWS

### Summary

#### **Enforcement:**

- Citation issuance varies by agency.
- State Park rangers often write warning letters to dumping perpetrators.
- Agency staff members often sift through bags of deposited garbage to find credit card receipts or pieces of mail that determine the identities of the dumping perpetrators.
- There is no universal phone number for local citizens to call and report illegal dumping information, but if the dumping witness is aware of which agency's land he or she is on, the individual can call the agency's local office to report the matter.

#### **Prevention:**

- Agencies utilize several prevention methods to mitigate illegal dumping.
- Posting signs, installing and erecting gates and barricades, and keeping parklands clean are the most utilized prevention techniques.
- State Park rangers use the widest variety of prevention strategies (including trashcan placement techniques and the hiring of Park Hosts). State Park lands are highly visible and are frequently patrolled by staff members. (State Parks have more staff members per acre of land than do USACE or USFS.)

#### **Further Insight:**

- Illegal dumping is an economic problem.
- Local residents dump because they are unable to afford to pay tipping fees at waste transfer stations.
- Illegal dumping is also a generational problem. Adults currently dump, their parents likely dumped, and unless the cycle is broken, their children will continue the trend.
- Interviewees universally expressed the need for reduced or eliminated waste disposal fees, and organization of educational events and programs that are particularly targeted at local youth.

4.2 STAFF INTERVIEWS  
Oregon State Parks

## 4.2 Oregon State Parks

Five Oregon State Park staff members were interviewed during the week of January 26, 2004. Stephanie Erickson interviewed Ranger Julie Whalen and Ranger Steve Wilson. Chant Eicke interviewed Team Leader Doug Crispin, Ranger Larry Vaughn, and Ranger Paul Tollenaar. A significant amount of insight was gained by speaking with these individuals.

*Dump sites:*

The severity and type of illegal dump site varies between parks and season. Paul Tollenaar encounters illegal dump sites daily, while Steve Wilson rarely comes across dump sites at Elijah Bristow and Dexter. Although park generated, recreational, and roadside litter are large-scale problems during the summer (Ranger Julie Whalen hires an extra employee during the summer who spends eight hours per day solely picking up litter at Winberry, Cascara, and North Shore), actual incidents of illegal dumping primarily occur during the fall and winter. The disposal of household garbage in park trashcans is a recurring problem that tends to occur during the winter when parks are infrequently visited or are closed. People do not like to be seen dumping and are less

**The dumping of non-native plant species of yard debris is a problem.**

likely to do so during the summer when there is a heavier volume of park visitors. The illegal disposal of animal carcasses is often a problem during the hunting season. Throughout the year, construction materials, auto parts, yard debris, recreational or road side litter (cigarette butts and recyclable glass bottles and aluminum cans), can be found on State Park land.

While all dumped materials pose a threat to the well being of parklands, Ranger Tollenaar specifically noted the problem of citizens dumping non-native plant species of yard debris. Illegally dumped piles of English Ivy and Vinca on Lane County Greenway parkland perpetuate the spread of non-native plant species. Household garbage dumping tends to occur in trashcans or dumpsters located near main roads. Ranger Steve Wilson noted that perpetrators are “polite dumpers” because they usually illegally dispose of their household waste in trashcans and dumpsters. Trashcans that are easily accessible by car are popular dumping targets. Household garbage dumping often occurs at night when staff members are not present. Illegal disposal of animal carcasses, construction materials, auto parts, and yard debris are usually found in remote and infrequently traversed park areas. Rangers speculate that local citizens are responsible for the bulk of illegal dumping incidents on State Park land. Team Leader Doug Crispin further mentioned that gravel roads and parking lots are more likely to be dumped upon than paved areas, and homeless camps generate the majority of severe dump sites.

**Homeless camps generate the majority of severe dump sites.**

## 4.2 STAFF INTERVIEWS Oregon State Parks

### *Cleanup:*

During the winter, the interviewed State Park staff members spend an average of 4.4 hours per week cleaning up illegal dump sites in their designated park areas (see Table 3). Buckets, “litter getters,” pick up trucks, and a “Tommy Lift” (used for heavy items) are used to clean dump sites. This equipment is owned by the Oregon State Parks and Recreation Department. Tollenaar uses the only truck with a Tommy Lift, which can complicate his daily schedule if another ranger needs to use it. Besides the Tommy Lift, park rangers always have access to cleanup materials. Whalen estimated \$1000-5000 is spent every year on cleanup equipment. There is no separate budget for the cleanup process. Cleaning illegal dump sites is part of rangers’ job descriptions. Additional cleanup resources (equipment, budget, extra labor) are not provided by the State unless a severe dump site (encompassing a high level of toxicity or significantly heavy items) is encountered. The Oregon State Parks and Recreation Department does not typically contract out their garbage, but collection contractors are sometimes hired. Vaulted toilets at Cascara were recently leaking, but before a contractor could look at the leak, garbage had to be pumped out and removed from the toilets. Whalen had several different contractors come to the area merely to offer bids for removing garbage piece by piece from toilets. Contractors’ bids ranged from \$300 to \$1600 per toilet. Whalen manages five vaulted toilets at this site, which makes the total trash removal cost very high. Park visitors disposed of aluminum cans, diapers, and whole bags of garbage in the toilets (to name a few items), even though a garbage can was situated within feet of the bathroom door.

**Ranger Paul Tollenaar’s truck has the only hydraulic lift in the Southern Willamette Management Unit.**

**Table 4 Oregon State Park ranger weekly cleanup time of illegal dump sites**

<b>Oregon State Parks Staff Member</b>	<b>Doug Crispin</b>	<b>Paul Tollenaar</b>	<b>Larry Vaughn</b>	<b>Julie Whalen</b>	<b>Steve Wilson</b>
Hours	10	4	4	2	1

Rangers are typically satisfied with their ability to clean dump sites. Vaughn felt that acquiring a dump truck would expedite and simplify the cleanup process. The only other lacking cleanup resource is time. See Table 4 for a budget description list.



4.2 STAFF INTERVIEWS  
Oregon State Parks

Table 5 Oregon State Parks Budget (information gathered from interviews)

Budget Expenses	Total Amount of Money Spent
Cleanup Expenses (Contractors)	\$7810.70 (June 1, 2003-February 2, 2004)
General Maintenance and Operations (including costs for deterrents)	\$65,000 annually
General Personnel (including staff payment of illegal dump site cleanup)	\$142,000 annually

*Enforcement:*

Team Leader Crispin regards enforcement as a vital but underutilized tool. Citations for

**Illegal dumping citations can only be issued if the perpetrator is caught in the act of dumping. The fine is \$109.**

illegal dumping can only be issued if a ranger catches a perpetrator in the act of illegal dumping. The fine is \$109. When a dumper is not caught in the act, rangers only have the authority to issue warnings. Credit card receipts, mail, and other identity providing items are often found in illegally disposed home garbage. State Park regulations discourage rangers from opening and searching

through bags of garbage (because of potential hazardous materials), but investigation can continue if identifying items lead to the source of illegal dumping. Whalen writes an average of one warning letter per week to illegal dumpers asking them not to put home garbage in State Park trashcans, while reminding them of the \$109 fine. Rangers also issue warnings by telephone. In the event of severe or persistent dumping, park rangers can turn names of perpetrators into police to help mitigate the problem. Police officers write an average of two to three citations every year. There is no current hotline for local residents to call to report illegal dumping, but Wilson estimates park offices receive two to three calls per year about witnessed dumping events. Crispin noted the important role regular park visitors have in discovering and reporting illegal camps and dump sites.

*Prevention:*

Strategic location and design of park trashcans and dumpsters are important illegal dumping prevention techniques. Moving trashcans further from main roads deters dumpers. Rangers have also removed garbage cans altogether which results in an initially increased amount of illegal dumping on parkland, but overtime diminishes household dumping occurrences. Placing locks or bars on dumpsters that only allow dumpster lids to open a few inches prevents many illegal dumps. Wilson noted that chaining down trashcan lids and cutting small holes in lids (only allowing small items to be thrown away) also help combat the household garbage dumping problem.

## 4.2 STAFF INTERVIEWS Oregon State Parks

Gates are also effective dumping **deterrents**, but can be difficult to implement because someone must close and open the gate on a daily basis to keep up with park usage hours. The installation of a gate costs between \$1000-1500. Park rules signs can be found at many parks in the Southern Willamette Management Area, but some rangers feel signs do not help prevent illegal dumping. Other rangers, like Whalen, believe signs might discourage dumping, but have been unable to test the effectiveness because it can take years for signs to arrive after being ordered.

**Deterrent:**  
*Something that prevents or deters illegal dumping. Examples include: trashcans, signs, rock barriers, gates, and park hosts.*

**Park hosts are very effective dumping deterrents.**

Parks hosts are very effective dumping deterrents. Dumpers are not likely to illegally dispose of their waste in the presence of a park host. Wilson encounters significantly less illegal dumping than his fellow rangers, and attributes the difference to the presence of park hosts at the Elijah Bristow and Dexter State Recreation Sites. The hosts live in central park locations within view of parking lots and picnic areas. Almost all interviewed rangers mentioned that keeping parks clean on a regular basis prevents excessive litter and illegal dumping.

All interviewed staff members support educational and cleanup events. Education is an important resource for preventing dumping, and cleanup events can be effective in cleaning up large-scale dumps. The Junior Rangers program at the Fall Creek Recreation Area parks teaches children between the ages of 9 and 12 how to properly use parklands. Participants earn stars for activities like recycling and cleaning up campsites. Whalen feels that education at an early age is very important for future prevention of illegal dumping. Most interviewees believe education is an essential illegal dumping mitigation technique. Cleanup events also teach participants respect and care for parkland. Ranger Tollenaar leads an annual volunteer clean-up activity at Glassbar Island Landing. Although this area is not a part of the surveyed project area, the event serves as an excellent example of working with local citizens to reduce illegal dumping.

### *Further Insight:*

Nearly all interviewed State Park staff members commented on the socio-economic nature of illegal dumping. Low-income dumpers are responsible for a large amount of illegal waste. These individuals simply cannot afford garbage collection or dumpster tipping fee costs. To address this issue, Tollenaar suggests implementing a low-income voucher system to reduce garbage disposal costs for these individuals. Crispin proposes organizing a type of “Amnesty Day” allowing citizens to dispose home garbage at drop off facilities free of charge. Sliding fees at waste disposal sites would also be efficient in preventing low-income citizens from illegally dumping in parkland. Other interviewees noted the generational dumping problem of adults illegally dumping because their parents illegally dumped. Dumpers have often been

**Illegal dumping is a socio-economic and generational problem.**

## 4.2 STAFF INTERVIEWS

### Oregon State Parks

illegally disposing their waste for years, and their children may continue the trend. This heightens the importance of education at an early age. Staff members believe children have a potentially strong influence on their parents not to dump. Although preventing illegal dumping on State Park land often seems hopeless, interviewees possess the hope that the problem can be halted.

## 4.3 United States Army Corps of Engineers

Five United States Army Corps of Engineers staff members were interviewed during the weeks of January 26 and February 2, 2004. Beth Webb interviewed Ranger Dan Cottrell, retired Chief of Natural Resource Management Dick Lamster, and Ranger Peggy Marcus. Jenny Laxton interviewed Environmental Compliance Manager Ken Duncan and Head Ranger Dustin Bengston. These rangers manage Army Corps parkland in the Lowell, Oregon area.

### *Dump sites:*

Army Corps rangers encounter various types of illegally dumped items in parkland. Household garbage, construction materials, yard debris, roadside or recreational litter, tires, sewer discharge, and animal carcasses are commonly dumped. Most other types of illegal dumps are situated in rural and hidden areas that are easily accessible by vehicle. Roadside pull-offs and access roads are popular dumping locations. Illegal dumping near roadside shoulders occurs on a weekly basis. Highly visible locations typically harbor fewer dump sites than more remote park areas. Litter is a daily problem. Disposal of hazardous pesticides or illegal methamphetamine lab waste is rare, but does occur. Local citizens, who either cannot afford to pay to legally dispose of their waste or, as Cottrell noted, are too lazy to haul garbage to transfer stations, are responsible for a significant amount of illegal dumping on Army Corps land. Dick Lamster remarked, “People have been dumping things wherever it has been convenient since the start of humankind,” noting that illegal dumping drastically increased in 1975 when transfer stations began charging citizens to legally dispose of their garbage. Many tires are illegally dumped for this reason: they are expensive to dispose of legally.

**“People have been dumping things wherever it has been convenient since the start of humankind.”**  
– Dick Lamster

**Commercial dumping** is sometimes a problem. In March of 2001, 101 gallon-size paint containers, in addition to paint spray equipment, were dumped near the north side of Lookout Point Reservoir. Illegal dumps of this magnitude are rare, but hazardous waste disposal does occur once or twice per year, and has an extremely harmful effect upon land quality and the health of local watersheds. Sewer discharge from recreational vehicles poses a similar health threat. The disposal of tires can also be dangerous. Tires tend to harbor stagnant water, making them likely breeding grounds for mosquitoes possessing the West Nile Virus.

### **Commercial dump site (n):**

*A site that contains waste from a business or agency, as opposed to a household or individual. Commercial sites are usually larger or contain items in greater quantities than is expected with residential dumping.*

**Hazardous waste disposal occurs once or twice each year.**

4.3 STAFF INTERVIEWS  
US Army Corps of Engineers

The quantity and type of illegal dump sites vary seasonally. The bulk of recreational litter, including food wastes and recyclable beverage containers, tends to occur during the summer when a larger number of citizens frequent parkland. Animal carcasses tend to be dumped during the fall hunting season, and yard debris tends to be dumped during the spring. Large-scale dumps like lawn clippings, household garbage, and tree trimmings often occur during the winter because it stays darker longer and perpetrators are not as likely to get caught. Illegally dumped Christmas trees are usually found in December and January.

**Sewer discharge from recreational vehicles poses a health threat similar to that of hazardous waste.**

*Cleanup:*

Rangers are generally responsible for the cleanup of illegal dump sites, but are sometimes forced to use contract crews for the cleanup of hazardous materials or heavy items. The US Army Corps of Engineers pays about \$10,000 to hire contract crews to clean hazardous illegally dumped materials. Janitorial services are hired to help clean parkland during the summer (during times of heavy litter volume), and service vaulted

**USACE pays \$10,000 to hire contract crews to clean hazardous illegally dumped materials.**

toilets. Cleanup costs are part of the recreational operation budget. There is not a separate cleanup budget. Cleanup time varies by site. Dustin Bengston estimated that two employees could clean one truckload of garbage in two to three hours. Peggy Marcus estimated a cleanup time of one to three hours

per dump site. At least two people are often required to clean illegal dump sites. Large-scale cleanups involving all rangers occur several times each year. See Table 5 for a table listing of individual staff members' weekly cleanup commitment.

The United States Army Corps of Engineers does not conduct volunteer cleanup events in the Lowell area. Dump sites are spread out and variable in composition, making it difficult to implement an organized and successful event. Frequent park users like joggers and dog walkers sometimes clean parkland.

**Table 6 USACE ranger weekly cleanup time of illegal dump sites**

<b>U f Member</b>	<b>Dustin Bengston</b>	<b>Dan Cotrell</b>	<b>Ken Duncan</b>	<b>Lamster</b>	<b>Peggy Marcus</b>
Hours Spent Each Week Cleaning Illegal Dump sites	2-3 (cleanup) 3-4 (enforcement)	Less than 1 (2-4 hours per month)	N/A	5 minutes (roadside litter pickup-30 hours (meth lab))	Less than 1 (3 hours per month)

Rangers typically attempt to restore parkland to pristine condition, but complete restoration is not always a priority. Many park areas were not pristine before the dumping occurred. The Army Corps owns sharps containers, garbage pickers, tractor,

## 4.3 STAFF INTERVIEWS US Army Corps of Engineers

and other equipment used to clean illegal dump sites. Money is not lacking for equipment. Marcus feels that dump site cleanup consistency is lacking. Cottrell believes that more rangers could expedite the cleanup process.

### *Enforcement:*

**Rangers issue few citations (one to two on average) each year.**

Rangers are authorized to issue several fines for illegal dumping. Improper disposal of commercial or domestic waste (a \$350 fine), disposal of waste generated on project (\$75), and litter on camp or picnic sites (\$50), are citation examples. State law prohibits dumping near a waterway, and the offense is twice the price of other citations. Fines for discharge from a vehicle onto project

land can also be issued. Rangers, however, issue few citations (one to two on average) each year. Cottrell feels fines are not generally considered the best solution. If rangers are able to find an illegal dumper's contact information (often obtained by searching through illegally dumped garbage), the information can be turned over to State police. Lamster remarked that State police have more power against illegal dumping because they can arrest and imprison perpetrators. Fines issued by police are twice as high as Army Corps issued citations. A police officer can issue a \$1000 fine for illegally dumping near a waterway.

Enforcement of illegal dumping laws can also be assisted by information obtained by witnesses. Local citizens sometimes call the Army Corps office line to report large scale dumping. Dump site reporters are often unsure of which agency's land they are on, making it difficult to track down illegal dumpers and dump sites.

### *Prevention:*

**“Physically making it tough is better than signs.” -Lamster**

Blocking access to current or potential dump sites is a popular dumping prevention method amongst the rangers interviewed. Barriers like rocks, gates, cables, fences, ditches, and even a row of tires, usually prevent people from disposing large quantities of waste. Small-scale acts of dumping may still occur near barriers, but large-scale dumping is typically minimized. “Physically making it tough is better than signs,” Lamster noted. Marcus considers the increase in patrol, removal of trashcans (during persistent household garbage dumping), and contact of illegal dumpers (who are often scared of being caught), to be successful illegal dumping mitigation techniques. Bengston also deems closing off access roads and placing land ownership signs to be effective prevention measures.

### *Further insight:*

Illegal dumpers do not typically realize their negative impact upon parkland. Lamster suggested organizing a public educational event, like a nightly news broadcast, to teach adults about illegal dumping and the associated health risks and costs

**Education is a key prevention resource.**



### 4.3 STAFF INTERVIEWS US Army Corps of Engineers

to taxpayers. All rangers felt education is a key prevention resource, especially if aimed at children. Teaching elementary and middle school age children the negative side of illegal dumping could prevent parents from passing down dumping habits. Illegal dumping largely correlates to the economic situations of citizens. Local residents dump on public lands when they cannot afford legal waste disposal. Limiting or abolishing fees at waste disposal sites would greatly reduce economy-related dumping. Lamster noted the importance of discouraging dumping by keeping parklands clean. Several rangers highlighted the importance of interagency communication. To encourage communication, Lamster suggested that agency representatives update agency websites with dump site information to inform other agencies of new illegal dumping incidents. Establishing a non-emergency central command phone line, for local residents to report illegal dumping, in addition to creating an adopt-a-road program, are also potentially successful mitigation techniques.

## 4.4 United States Forest Service

Four United States Forest Service Employees were interviewed during the weeks of February 23, and March 1, 2004. Chant Eicke interviewed Law Enforcement officer Gary Burcal. Burcal discovers and documents new and established dump sites. Stephanie Erickson interviewed Hydrology Technician Ernie Ledbetter, the coordinator of dump site cleanup. Jenny Laxton interviewed David Murdough, the Watershed Program Lead for the Middle Fork Ranger District of the Willamette National Forest. Beth Webb interviewed Larry Lassiter, Developed Site Manager for the Lowell Area, also in the Middle Fork Ranger District. Unlike Oregon State Park and United States Army Corps of Engineers Rangers, these four Forest Service employees are in charge of overseeing different illegal dumping realms. Burcal primarily deals with enforcement proceedings, Ledbetter handles dump site cleanup, Murdough tackles budgeting and cooperation between agencies, and Lassiter manages dispersed and developed site camping and trail work. Interviews with these staff members further outlined the illegal dumping problem and highlighted additional characteristic differences between the three partner agencies.

### *Dump sites:*

Roadside litter, dirty diapers, animal carcasses, yard debris, washing machines, chest-type freezers, refrigerators, and abandoned vehicles are examples of items that can be found at a typical U.S. Forest Service dump site. Gary Burcal outlines five categories of dumping:

1. 'Typical litter,' or garbage that is disposed through day use activities, or thrown from car windows
2. 'Household garbage' including paper, food scraps, packing material, and other items or bags of residential trash,
3. 'Household cleaning or moving trash,' including small appliances, clothes, lumber, and other household items,
4. 'Large appliances and furniture,' and
5. 'Abandoned vehicles,' including cars, trucks, trailers, and campers.

**The abandonment of vehicles is a significant problem.**

**Hazardous waste dumps are rare, but 10% of discovered dump sites contain some type of hazardous material (e.g., needles in household garbage dumps).**

The abandonment of vehicles is a significant problem. Burcal estimates five to six vehicles are dumped each year. Illegal disposal of propane cylinders has also been problematic in recent years because of a change in propane cylinder format. Older, 20-gallon propane tank models are now prohibited from refilling, and individuals have since dumped many old tanks onto U.S. Forest Service land. David Murdough further notes that dumping occurs in spurts, and

has increased over the years because of fee increases at transfer stations. Illegal dumping is more frequent during the spring and summer months. Ernie Ledbetter

#### 4.4 STAFF INTERVIEWS US Forest Service

estimates cleanup crews encounter four to five new dump sites each day during the summer. Hazardous waste dumps are rare, but 10% of discovered dump sites contain some type of hazardous material (e.g., needles in household garbage dumps). Dump sites are typically found off of spur roads, less than a quarter of a mile from the main access road, in areas easily accessible and maneuverable by vehicle. There is also a higher occurrence of dumping near urban and residential areas, and decreased dumping incidents farther away.

*Cleanup:*

U.S. Forest Service cleanup strategies include: law enforcement mandated by Gary Burcal, cooperation with the Bureau of Land Management, and inmate and juvenile cleanup crew coordination. Burcal locates, photographs, and marks dump site locations on a map, and then delivers his findings to Ernie Ledbetter. During the summer, Ledbetter spends 200 hours organizing a Youth Conservation Crew of 12 local youths to clean illegal dump sites in Forest Service area surrounding the cities of Lowell and Oakridge. One team of six youths works in Lowell, the other team of six works in Oakridge. These individuals can usually clean encountered dump sites in two or less hours. Hazardous and dangerous dump sites receive higher cleanup priority. The U.S. Forest Service sometimes hires outside resources to clean difficult dump sites. Hazardous materials teams are hired to clean hazardous waste dumps, and can cost upwards of \$1000. Tow companies are hired to remove vehicles, and BLM Ranger Norm Maxwell is sometimes paid to remove difficult dumps and deliver abandoned vehicles without a title to the scrap yard. Cleanup equipment includes pitchforks, shovels, gloves, handheld litter pickers, garbage bags, and a winch on a truck. This equipment costs \$500 annually and is owned by the U.S. Forest Service. Larry Lassiter expresses the need for more protective equipment for sharps cleanup.

The funding for illegal dump site cleanup comes from the district's general budget as well as from PECO funds (see Table 6 and Table 7). PECO funding is money given to the county to do work on either federal or county lands to offset timber revenue losses. The Middle Fork Ranger District has been using this money to fund cleanup of abandoned vehicles and to fund youth cleanup crews. The Forest Service used \$7,000 in PECO funds to remove abandoned vehicles in 2003, and \$5,000 in 2004. The youth crews that will be hired in the summer of 2004 are budgeted to cost \$48,000 in PECO funds. This includes paying the youth, the contract crews who will take care of larger items with machinery, and paying for charges that will be accrued at transfer stations. Project funding for illegal dumping in 2003 (including staff members' salaries, hiring cleanup crews, and contracting out for cleanup) totaled \$13,000. In fiscal year 2004, \$58,500 is being spent.

**Table 7 U.S. Forest Service budget: PECO funding**

<b>Budget Expenses</b>	<b>Total Amount Money Spent</b>
Cleanup of abandoned vehicles in 2003	\$7000
Cleanup of abandoned vehicles in 2004	\$5000 (total spent so far)
Youth Cleanup Crews in 2004	\$48,000

4.4 STAFF INTERVIEWS  
US Forest Service

**Table 8 Forest Service Budget: money from general budget**

<b>Budget Expenses</b>	<b>Total Amount Money Spent</b>
1. YCC Cleanup Crews	\$3000 annually
2. Riparian Restoration	\$3000 annually
3. Community Cleanups/Prevention-2003	--
4. Community Cleanups/Prevention-2004	--
2003 Total for expenses 1-3	\$13,000
2004 Total for expenses 1,2 and 4.	\$58,500

The U.S. Forest Service has participated in the annual spring Clean River Days cleanup event for the past 3 years. 25-30 volunteers participated in 2003. Volunteer activities included picking up garbage, removing larger illegally dumped items, and painting over graffiti. The Forest Service most recently participated in a cleanup event at Waldo Lake. Other past cleanup event participation was in Fern Creek and Hill Creek.

*Enforcement:*

Similar to State Park and Army Corps Rangers, Forest Service employees often search through illegally dumped household garbage to find information leading to the names of perpetrators. Law enforcement procedures follow the Codes of Federal Regulation (CFRs) that pertain to illegal waste disposal.

**Law enforcement procedures follow the Codes of Federal Regulation.**

- Code 261.11.B pertains to basic littering, a \$100 fine that is generally given to campers who leave a mess.
- Code 261.11.C pertains to placing polluting substances in or near water, and is a \$200 fine.
- Code 261.11.D pertains to failure to properly dispose of trash, a \$200 fine.
- Code 261.11.E pertains to the dumping of trash from private land, a \$300 fine that is seldom used because the perpetrators are difficult to track down.
- Code 261.10.E pertains to abandoning property, a \$100 fine typically used for abandonment of vehicles.

Violation of CFRs is a class B misdemeanor. Citations are usually issued and the perpetrator is given the option to appear before a federal court. If the crime is severe or persistent, the officer can demand mandatory court appearance, whereupon the court may issue a penalty of up to \$5000 or 6 months in prison. This level of enforcement is rarely utilized. Larry Lassiter estimates an issuance of five to six citations per month. One to two citizens call the Forest Service's district office each month to report illegal dumping information. These individuals are, at a later date, thanked for contributing to cleanup and enforcement efforts.

*Prevention:*

Posting informational signs to discourage dumping and blocking roads are the primary prevention methods utilized by the U.S. Forest Service. Signs are intended to discourage land users from dumping, but have not been very effective at curbing the

#### 4.4 STAFF INTERVIEWS US Forest Service

**Cost is a limiting factor in prevention method implementation.**

problem. Installing gates, to prevent access to frequent illegal dump sites, costs \$700-1000, and can be very effective at preventing dumping. Digging trenches or placing large rocks at road entrances also help block roads and prevent dumping. Blocking every road is the only way to completely hinder illegal dumping, but road blocking often angers local citizens. Hiring individuals to patrol Forest Service land every hour of every day would significantly mitigate the problem, but would be very cost-intensive. Ledbetter notes cost to be an extremely limiting factor in prevention method implementation.

##### *Further Insight:*

Larry Lassiter believes illegal dumping is a problem of economics and convenience. Several interviewees feel that more cleanup and educational events could prevent dumping. The need for more affordable legal waste disposal is also expressed. Hiring a staff member to specifically deal with the illegal dumping problem is needed. Forcing local residents (especially those who illegally dump) to clean dump sites would greatly reduce dumping incidents. A trash amnesty day for the entire County, and education targeted at children are also cited as potential tools to combat and prevent the overall problem of illegal waste disposal.

## 5 POTENTIAL SOLUTIONS

### 5.1 Summary of Case Studies

Case studies were conducted in April 2004 to acquire information about other communities in the U.S. that have experienced the issue of illegal waste disposal and attempted to mitigate the problem. Representatives of four organizations were contacted and interviewed. Internet-based research was also conducted to obtain additional information. The case studies researched were: New Jersey's Gloucester County Clean Communities program, the Michigan Coalition for Clean Forests (MCCF) program, Vermont's Adopt-A-Site program, and Pennsylvania's PA CleanWays program. Information gathered from these individual reports (see Appendix 8.7) included an overview of the program (including when and why it was founded, the program's goals, types of activities, unique attributes, types of publicity, and similar programs in other cities, towns, and states), specific program accomplishments (including level of achieved success and current monitoring and evaluation programs), program staffing (including part time and full time staff, volunteers and volunteer hours), and annual program budget. The case studies complemented and added to illegal dumping prevention ideas and solutions suggested by the interviewed agency staff members of the Middle Fork of the Willamette project area.

All of the researched organizations were founded because local citizens did not want to live in communities with excessive littering and illegal dumping. These organizations are centered on common themes including: improving environmental quality, protecting public and environmental health, educating the community, changing attitudes about illegal waste issues, enhancing enjoyment of the land, improving laws and partnerships, sharing successful strategies, and empowering people to initiate change. Each organization is unique in its prevention and solution methods. Adopt-A-Site is different from many roadside pickup programs because it is site specific, and utilizes education instead of enforcement. MCCF's website (<http://www.cleanforests.org/search2.shtml>) has a database where dump sites can be reported, catalogued, searched, and discovered. Most land management agencies are represented in its coalition, dubbed the "trash team." PA CleanWays has a grassroots approach of local input involvement and support, and has extensive program resources for education and other program activities.

Program activities for these organizations are widely varied, and have had great success in mitigating illegal waste disposal. Adoption of roads, streams, forests, greenways, trails, and neighborhood blocks help keep areas clean, and show local citizens that the community cares about its land. Gloucester County Clean Communities has an adopt-a-"spot" program for children to adopt areas like schoolyards. Volunteer cleanup days and recycling events have also proven very effective. PA CleanWays' Proper Disposal Program organizes events to correctly dispose of items such as tires, batteries, and hazardous wastes. Site beautification programs that involve tree-planting, erection of monuments, or construction of fences or signs help prevent illegal dumping. Clean and attractive areas are less likely to be dumped upon than dirty or degraded areas.



## 5.0 POTENTIAL SOLUTIONS

Education is one of the most used program activities. Presentations about illegal waste issues are given to young children in classroom settings to prevent future illegal dumping. Gloucester County Clean Communities rewards five local schools that participate in this type of education with a trip on a refurbished oyster schooner for students to learn more about their local estuary environment. PA CleanWays offers educational materials including children's literature, videos, games, and an educational curriculum to be taught in conjunction with other classroom lessons.

MCCF's site identification program coincides with its database and local sheriff enforcement, and has also been an effective illegal dumping solution. Organizational activities and events are primarily publicized by news releases (announcements made in local newspapers and radio stations), semi-annual newsletters, and program websites. In addition, Adopt-A-Site adoption groups receive small Plexiglas thank you stands that recognize a particular group's effort, and increase awareness of the program.

Adopt-A-Site and PA CleanWays program activity success is usually measured by the quantity of waste that has been prevented from being illegally dumped. Gloucester County Clean Communities is very proud of its environmental education and the involvement of volunteers in cleanup events. MCCF has been successful in achieving a statewide coalition of organizations and land agencies, and creating a useful website and database.

Staff members at these organizations generally oversee and coordinate program activities. Quantity and type of staff members varies by organization. Volunteers are a huge part of program efforts. Program cleanup events, adoption and beautification programs would not be possible without volunteers. Volunteer and local organizational support for these groups grows each year. The cost of each organization varies depending upon activities, programs, and staff. Most money is obtained through grants and cash and in-kind donations. MCCF receives additional funding from state and federal governments. Adopt-A-Site receives part of the tipping fees from dumps, as well as donations of beautification supplies for monuments and tree planting. The funding for Gloucester County Clean Communities is generated from a tax put on businesses that produce potential litter-generating products including, but not limited to: tires, food, cigarettes and tobacco products, soft drinks and carbonated water.

Full descriptions of these individual programs are available in Appendix 8.7.

## 6 CONCLUSIONS & RECOMMENDATIONS

Illegal dumping in forest and parkland is a significant problem in the illegal dumping project area. It is primarily caused by local residents who are either too lazy to take their waste to transfer stations, do not know the effects of their actions, or cannot afford to pay transfer station tipping fees. Agency staff members desperately want this problem to end, but often lack the resources to do anything besides erecting barricades and gates, and putting up signs to discourage individuals from illegal dumping. Resources for combating this problem are available. The illegal dumping project team has come up with four main recommendations for land agencies and future Service Learning Project groups to combat the illegal dumping issue. We feel these recommendations will work best if implemented by a coalition or collaboration of local land agencies to ensure communication and mobilization of improper waste disposal prevention efforts. Recommendations are modeled after case studies of the Michigan Coalition for Clean Forests (MCCF), Vermont's Adopt-A-Site, and Pennsylvania's PA CleanWays program, in addition to recommendations and information obtained through agency staff interviews. These recommendations require an adequate amount of funding. Grants are available to cover project implementation and maintenance costs. Researched grants that agencies can apply for in fiscal year 2004 can be found in Appendix 8.8.

We recommend the following programs be integrated into future agency and project group efforts to prevent illegal disposal of waste into forests and parklands:

### Recommendation #1: Web-based dump site database

An internet-accessible database of dump sites, modeled after MCCF's "Dump site location database" (<http://www.cleanforests.org/search2.shtml>), should be constructed. The MCCF database allows local residents, organizations, and volunteer groups to search for and/or report dump site information. Individuals can search for dump sites that contain specific items, or are located in certain counties or areas. Dump site information is organized by county, township, legal description, latitude, and longitude. A "view all information link" leads individuals to additional information about the dump site, travel directions to the site, and how to get involved in cleanup efforts. A navigation bar under the "Is help available?" section of the detailed information site allows individuals to scroll down to determine what help is needed for that particular site (e.g., cleanup, adoption, or equipment donations), or to report dump site status or inability to locate the dump site.

As an example of how the website works, consider the following: if a tire collection and recycling organization is interested in collecting illegally dumped tires for proper disposal, the organization could type the word "tires" into the database's search engine on the MCCF website to generate a list of all illegal dump sites that contain tires. If the tire organization is interested in cleaning a particular dump site, it could click the "view all information" link, and use the navigation bar to scroll down and highlight options to clean the site, adopt the site, or donate cleanup equipment.

## 6.0 Conclusions & Recommendations

We feel that a similarly constructed, internet-accessible, dump site database could be constructed for the Middle Fork of the Willamette project. The database would allow land agencies and local residents to keep track of dump sites and offer volunteer opportunities to clean or adopt specific areas.

The Service Learning Program has secured funding to build and implement a website of this sort. Agency staff would need to verify and update the status of dump sites on a regular basis to compliment the efforts of community members.

### Recommendation #2: Adoption and Cleanup

In conjunction with the recommended database implementation, we feel that an adoption program, modeled after Adopt-A-Site, MCCF, and PA CleanWays adoption programs, would gather volunteer public support for cleaning lands and help prevent future improper waste disposal. Local individuals, community groups (e.g., the Boy Scouts, church youth groups), businesses, or non-profit organizations could adopt areas of land (possibly determined by using the dump site database), and agree to keep the areas clean and dump free. Signs would be erected to notify land users that the area is adopted. Groups with adopted areas would receive recognition on the website and could be automatically notified when a new dump site is reported.

The adoption of areas by specific groups is an effective deterrent for future dumping. For example, if an elementary school teacher or class adopted an area of parkland, a sign could be posted that notified park users that Mrs. Mitchell's second grade class had adopted the area of land to keep it clean and dump free. Local residents are then less inclined to improperly dump their waste because they would realize that a specific volunteer group would have to clean up after them.

Adoption volunteers and land agencies should also organize community cleanup events to further integrate land cleanup into the community. (See appendix 8.6 for an example of an illegal dump site cleanup event that the illegal dumping project team participated in, during May 2004.)

### Recommendation #3: Education

Education about the problem of illegal waste disposal is essential for the success of any trash prevention program. We feel this education must begin with children. Many agency staff interviewees believed that if children were educated at an early age not to improperly dump their waste, they would not grow up to be illegal dumpers. PA CleanWays offers an outstanding educational program and curriculum that utilizes literature, videos, and interactive games and activities to teach children how and why to properly dispose their waste. We believe a similar education curriculum for Lowell and Oakridge youths would be effective at preventing illegal waste disposal. PA CleanWays' children literature is available for purchase. Further educational activities and curriculums can be obtained by contacting PA CleanWays. Future SLP groups would give presentations to schools in Lowell, Oakridge, and other areas in Lane County. Nearby schools would be contacted and invited to participate in the educational curriculum.

## 6.0 Conclusions & Recommendations

We further recommend that adults be educated about the hazards and taxpayer expenses of improper waste disposal. This could be implemented in the form of a press release for a nightly news broadcast or short newspaper story, or by mailing out informational pamphlets. Presentations of this group's findings to community organizations would demonstrate the importance of illegal dumping and generate community interest. In addition, signs could be posted in frequently visited areas that inform users of the harm of illegal waste disposal.

### Recommendation #4: Monitoring

A monitoring program should be implemented to determine the success of potential solution recommendations and past cleanup efforts. Agencies and local groups (e.g., volunteer organizations or future Service Learning Program groups) would follow the survey and cleanup routes of past cleanup crews, staff members, and project groups, and revisit cleaned dump sites to determine possible differences in dump site size, content, and frequency. Recent and older cleanup routes would be followed. The database would provide a thorough record of the items cleaned from various sites, their exact locations, and cleaning dates, thereby allowing for an accurate analysis of the program's success.

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## 8 APPENDICES

### 8.1 Final Work Plan

There are numerous parks, camp grounds, and public lands surrounding Lowell, OR that are managed by Oregon State Parks, U.S. Army Corps of Engineers, Bureau of Land Management, and U.S. Forest Service. Additionally, there are large tracts of privately held forestland. Local residents and tourists frequently use these areas as illegal dumping sites. The cost of cleaning up these sites is significant in terms of time, money, environmental impact, and public frustration. The group is interested in researching options and implementing a plan to reduce the amount of illegally dumped trash.

#### *Proposed Work Program*

Oregon Parks and Recreation Department, the Army Corps of Engineers, the United States Forest Service, Bureau of Land Management, and Lane County Waste Management are all interested in the findings of this research. Kees Ruurs, Park Manager of the Southern Willamette management unit for the Oregon Parks and Recreation Department, will be the Contract Administrator and the onsite project coordinator for the clients. The Environmental Studies Service Learning Program will be responsible for completing all project related tasks. A team of 4 Environmental Studies juniors and seniors will work over the course of the academic year to complete the work. Mark Neff, a paid graduate student will be the project manager and will be responsible for all day-to-day operations. Steve Mital, the Service Learning Program Coordinator, will supervise and work directly with the graduate student. Dr. Greg Bothun, an Environmental Studies Program faculty member, will be the principal investigator on this project.

#### Description of Tasks

There will be five components to this project:

- I. Orientation
- II. Conduct inventory of dumping sites
- III. Research potential solutions
- IV. Education and outreach program
- V. Reporting and wrap-up

#### Component I: Orientation

##### **Task 1 - Meet Clients**

Project manager Mark Neff and SLP coordinator Steve Mital will meet with the clients and agree on geographic boundaries for the project (which state, federal, and private lands in the Lowell area will be included in study)

Schedule: Completed November 2003

##### **Task 2 – Tour project area**

## 8.1 Final Work Plan

The SLP team will take a field trip to Lowell. Kees Ruurs of Oregon State Parks will guide the SLP team on a rough tour of the project area. The SLP team members will acquaint themselves with the area and learn how to inventory dumping sites.

Schedule: January 2004

### Component II: Conduct inventory of dumping sites

#### **Task 3 – Design field data sheet**

The project manager will design a field data sheet to be used by team members to gather important information about each dump site.

Schedule: January 9, 2004

Product: Field data template

#### **Task 4 - Conduct a physical inventory of dumping sites**

Map, photograph, and inventory existing illegal dump sites. This will provide valuable information regarding the size of the problem, who is affected, where illegal dump sites are concentrated, the type of items being dumped, and how much time would be required to clean existing dump sites.

Schedule: January – March 2004

Product: Illegal dump site database

#### **Task 5 – Conduct interviews with agency staff**

Interview agency staff, sheriff's work crew staff, private timber company staff, and other key people to find out how effective monitoring and law enforcement efforts have been in reducing the illegal dumping and the costs involved with cleaning up these sites. As most agencies actively clean up dump sites, staff members will be an important resource for information on the types of garbage and locations of dumping sites.

Schedule: January – March 2004

Product: Report

#### **Task 6 – Produce a map of the illegal dumping problem**

Compile information gathered from physical mapping of dump sites and agency interviews to produce a map of the Lowell area illegal dumping problem. Maps will include information on the type of garbage found and any discernable seasonal patterns to dumping.

Schedule: March 2004

Product: Map

### Component III: Case studies and potential solution research

#### **Task 7 – Conduct case studies**

Conduct four case studies to find out what other similarly situated rural towns have done to mitigate this kind of problem.

Schedule: January – March 2004

Product: report

#### **Task 8 – Evaluate potential solutions**

## 8.1 Final Work Plan

Evaluate potential solutions based on costs of implementation, amount of local public support, and potential for success. If funding permits, this may involve a survey sent to local residents.

Schedule: April – May 2004  
Product: Written report

Component IV: Education and outreach program

### **Task 9 – Develop a public education program**

Educate the public about the local illegal dumping problem and any new programs designed to mitigate the problem.

Schedule: April – May 2004  
Product: Website, Newsletter, Media releases

### **Task 10 - Demonstration project**

If time and funding permits we may also work with clients to implement a demonstration project that tests the effectiveness of potential solutions to the illegal dumping problem.

Schedule: May 2004  
Product: Event

### **Task 11 – Organize a volunteer clean-up day**

Work with school and community groups to organize and supervise a large-scale volunteer clean-up day.

Schedule: May 2004  
Product: Volunteer cleanup day

Component V: Reporting and wrap-up

### **Task 12 – Research potential grants**

Research grants available to fight illegal trash dumping on public lands.

Schedule: April – May 2004  
Product: Report

### **Task 13 – Prepare monthly progress reports**

The SLP project manager will submit a monthly progress report to Kees Ruurs of Oregon State Parks.

Schedule: January 2004 – June 2004  
Product: Report

### **Task 14 – Prepare final presentation**

The SLP team will prepare and deliver a PowerPoint presentation that explains the project results. Staff from Oregon State Parks, the Bureau of Land Management, the Army Corps of Engineers, the United States Forest Service, and the City of Lowell will be invited to attend the presentation.

Schedule: June 2004

## 8.1 Final Work Plan

Products: PowerPoint presentation

### **Task 15 – Prepare final poster**

The SLP team will prepare and deliver a print-ready poster that explains the project results. Staff from Oregon State Parks, the Bureau of Land Management, the Army Corps of Engineers, the United States Forest Service, and the City of Lowell will receive an electronic copy of the poster.

Schedule: June 2004

Products: Print-ready poster

### **Task 16 – Prepare final report**

The SLP team will prepare and deliver a report that explains the project results. Staff from Oregon State Parks, the Bureau of Land Management, the Army Corps of Engineers, the United States Forest Service, and the City of Lowell will each receive a copy of the final report.

Schedule: June 2004

Products: Written report

Task	Dates
Task 1. Meet Clients	Completed November
Task 2. Tour project area	January
Task 3. Design field data sheet	January 9
Task 4. Conduct a physical inventory of dumping sites	January - March
Task 5. Conduct interviews with agency staff	January - March
Task 6. Produce a map of the illegal dumping problem	March
Task 7. Conduct case studies	January - March
Task 8. Evaluate potential solutions	April - May
Task 9. Develop a public education program	April - May
Task 10. Demonstration project	May
Task 11. Organize a volunteer clean-up day	May
Task 12. Research potential grants	April - May
Task 13. Prepare monthly progress reports	January - June
Task 14. Prepare final presentation	June

## 8.1 Final Work Plan

Task 15. Prepare final poster	June
Task 16. Prepare final written report	June

**Budget:**

An estimated budget is provided below.

<b>Lowell Area Illegal Trash Dumping budget</b>					
Description	Unit	Cost	Environm ental Studies	Fed, state agencies	TOTAL
Program Coordinator					
salary	.125 FTE	\$ 3,550.00		\$ 3,550.00	\$ 3,550.00
OPE		\$ 2,132.00		\$ 2,132.00	\$ 2,132.00
Graduate Teaching Fellow					
Tuition	2 terms	\$ 6,226.00	\$ 6,226.00		\$ 6,226.00
wages	.25 FTE/term	\$ 3,402.28	\$ 3,402.28		\$ 3,402.28
OPE		\$ 34.00	\$ 34.00		\$ 34.00
Travel - 1000 miles	\$.36/mile	\$ 360.00		\$ 360.00	\$ 360.00
state motor pool vehicle rental	\$30/day	\$ 150.00		\$ 150.00	\$ 150.00
Survey (postage, copies)	500 copies	\$ 360.00		\$ 360.00	\$ 360.00
Newsletter (postage)	500 copies	\$ 180.00		\$ 180.00	\$ 180.00
Facilities and Administration		\$ 1,818.00		\$ 1,818.00	\$ 1,818.00
<b>TOTAL</b>		\$ 18,212.28	\$ 9,662.28	\$ 8,550.00	\$ 18,212.28

## 8.2 Physical Inventory Database Document

Reference Number \_\_\_\_\_

Entered by \_\_\_\_\_ Photo Numbers \_\_\_\_\_

GPS site # \_\_\_\_\_

Latitude \_\_\_\_\_

Longitude \_\_\_\_\_

Date \_\_\_\_\_ Location Description \_\_\_\_\_

Time \_\_\_\_\_

**Site Description**

Land Ownership  BLM  State Parks  Weyerhaeuser  Other...  
 Army Corps  USFS  Giustina

Road Type  paved (public)  dirt (public)  4-wheel only  private road

Parking  shoulder  pull-out  spur road  parking lot  Other...

Land Usage  Park  Wayside  Boat launch  Open space

Existing Prevention/ Deterrent  signs  garbage dumpster or can  permanent barricade  
 (Within 100 Yards)  host  access gate Deterrent # \_\_\_\_\_

Age of Site  Unknown  Past month  Past year  Older

Multiple dumping events  yes  no  unknown

Area affected  trash can overflow  99 or fewer sq ft  500-999 square feet  
 dumpster overflow  100-499 sq feet  1000+ square feet

Site Type  Recreational Site  Planned Site  Roadside Litter

Dumpsite Layout  primarily scattered  primarily concentrated Active dumpsite?  
 yes  no  unknown

Dumpsite severity Minor  1  2  3  4  5 Severe

**Dumpsite Composition** Percentages & Numbers

Items  Auto parts  Lumber/ construction scraps  Recyclable Glass  
 Autos  Animal carcasses  Shattered Glass  
 Large Appliances  Chemicals  Deposit Aluminum Cans  
 Electronics  Batteries  Scrap Metal  
 Mattresses  Oil  Yard Debris  
 Furniture  Cleaners  x-mas trees  
 Fluorescent lightbulbs  Paint  Aerosol cans  
 Pesticides/herbicides  Other fluids  Household garbage  
 Concrete  Sharps

**Unusual Items** \_\_\_\_\_

**Cleanup** Primary source  Residential  Commercial  Recreational  Roadside litter  Unknown

Complicating Factors  steep slope  heavy items  
 blackberry bushes, other  less than 25ft from permanent waterway  
 overgrown  less than 25ft from seasonal waterway  
 hazardous materials (for cleanup crew)  Other... \_\_\_\_\_  
 many small items

Quantity  1 garbage bag or less  2-5 garbage bags  pick-up truck load or less  more than one pick-up truck load

Estimated Cleanup time (person hours)  Half hour or less  one to two hours  five to eight hours  
 half to one hour  two to five hours  eight or more hours

Notes \_\_\_\_\_



## 8.3 Lane County Waste Reports

### 8.3.1 Pete Chism Interview Report

*Interviewee: Pete Chism*

*Title: Waste Reduction Specialist*

*Agency: Lane County Waste Management*

*Interviewer: Beth Webb*

*Date/Time: Monday March 8, 2004 9:00AM*

Pete Chism is the Waste Reduction Specialist for Lane County Waste Management (LCWM), a position he has held for two years. He supervises the Master Recycler Program, a volunteer program offered by Lane County to educate citizens about recycling. He also administers ten contracts with private and non-profit organizations that educate the community on recycling and reusing material. He provides recycling information to the community through radio advertisements, a monthly article in the Register Guard, press releases and interviews. Some of his other duties include working with other LCWM staff in the development of transfer stations, and looking for opportunities to recycle new materials.

In the sixties and seventies, Lane County used three unlined landfills for waste disposal. The Environmental Protection Agency (EPA) developed stricter rules during this time period and forced Lane County to begin regulating public waste disposal. Lane County Waste Management began using Short Mountain Landfill in order to fulfill the new regulations. Half of the landfill is lined and therefore prevents the spread of leachate (liquid from decomposing wastes) into groundwater. Tipping fees were implemented around the same time to pay for equipment that compacted waste. Compaction allows for more waste to be put in the landfill, and also simplifies transport. Weighing of waste did not start until sometime after 1976, so LCWM is unsure how this affected the amount of legally disposed garbage.

Short Mountain landfill is used for municipal solid waste, which includes all wastes except hazardous waste and some banned materials, such as appliances and tires. Another landfill operated by Delta Sand & Gravel takes construction materials, such as leftover wood, scrap metal, drywall, large stumps and roofing. Delta Sand & Gravel receives approximately 30,000 tons of waste annually, while Short Mountain receives 250-260,000 tons annually.

LCWM, particularly Chism himself, encourages people to recycle and reuse material whenever possible. One tool for doing this is the Master Recycler Handbook which contains information from the EPA and Department of Environmental Quality (DEQ). LCWM Staff writes a new manual every year. This data helps LCWM outline goals and projections for the future. One such plan is the Solid Waste Plan, which has a 2009 goal to reach 54% recovery of wastes. Recovery is the amount of waste that is recycled rather than disposed of in the landfill. Lane County is currently at 50% recovery, the fourth highest in the state.

### 8.3.1 Pete Chism Interview Report

To reach this goal, LCWM is working on various programs to increase the recovery of problematic items. Chism estimates that 70-75% of material in landfills can be recycled or composted within current infrastructures. Chism feels that the public has enough opportunities to recycle, but that they lack education or knowledge of such programs. After developing some key programs, LCWM will begin looking into how they can reeducate citizens about recycling systems that currently exist, and how they can take advantage of them. By next summer, they hope to have electronics and mattress recycling. LCWM is also considering specific wastes (food waste, construction demolition material and office paper) after the release of a 2000 DEQ study on waste composition in Oregon. According to the study, landfills are composed of 21% paper, 16% food waste, 6% yard debris, and 9% wood. LCWM hopes that capturing these large quantity items will enable them to reach their 54% recovery goal.

Chism sees the issue of education in the recycler's world as a two-sided debate, one enhancing the negative side, the other the positive. The negative side reaches people by emphasizing the destructive effect we have on the earth with the consumption of finite resources. The positive perspective highlights how we will have less of an impact if we reuse and recycle materials. Chism himself tends to be more pessimistic, but he emphasizes that the intended audience is important for determining the tone of education. If a more impassioned, strong-willed citizen is desired, then a negative perspective is usually the best approach. If a more moderate, but perhaps more encompassing change is desired, a positive approach is best. Chism recommends emphasizing that recycling can minimize our impacts when working with rural populations.

LCWM operates sixteen transfer stations in Lane County. Residents use these to dispose of personal garbage in rural locations. It costs \$45 per ton to dispose of personal waste. Garbage haulers must dispose of their waste at Short Mountain Landfill. There are some exceptions for haulers in Oakridge and Florence, because the local transfer stations are farther away from the landfill. Private garbage collectors in the area of study are Oakridge Sani-haul, and McKenzie Disposal and Countryside Disposal. Private waste collectors are required to report what they collect and where they take it. Chism collects this information once a year and reports it to the DEQ.

Several opportunities to recycle materials not accepted by LCWM exist. A company in Springfield accepts roof shingles to make a product called Roof-Gone, a no-spark bark used as an amendment in soil. Weyerhaeuser collects 15 grades of paper (LCWM only accepts 2 grades). LCWM has a contract with Rexius for compost and Lane Forest Products for wood waste. However, yard debris and wood waste are only accepted at three transfer stations (Glenwood, Florence and Cottage Grove). These were set up because they exist in the highest populated areas and have more room for extra boxes. There are some seasonal yard waste programs run by various agencies and organizations in Lane County. Some groups, such as the boy scouts, use Christmas tree recycling as a fundraiser, and Lane Public Works Road Department collects leaves from curbs in the fall.

### 8.3.1 Pete Chism Interview Report

LCWM runs two amnesty days in the Eugene-Springfield area. There are no other opportunities for low-income families to dispose of their waste at a reduced rate. In the long run, it is cheaper to self-haul than to hire a private company. LCWM offers free collection of hazardous waste, which is one of two such programs in the state of Oregon. This program is modeled after similar ones in Washington, which requires every county to have such a program. The program is designed to reduce toxicity in the Short Mountain Landfill. LCWM has seen an increase in the amount of material collected through this program every year and is currently diverting 90-100 tons of hazardous waste annually.

## 8.3.2 Transfer Station Information

### 8.1.2 Transfer Station Information

*Oakridge Transfer Station*  
48977 Kitson Springs Road  
Oakridge, OR 97463  
Hours: 8 AM-6 PM Wed-Sat

*Rattlesnake Transfer Station*  
82572 Rattlesnake Road  
Dexter, OR 97431  
Hours: Winter (October-April): 9 AM-5 PM Wed-Sat  
Summer (May-September): 8 AM-6 PM Wed-Sat

#### Recycling Items Accepted

- Aluminum Cans & Foil  
*Will not accept steel*
- Batteries  
*Will not accept alkaline batteries*
- Cardboard & Brown Paper Bags
- Glass Bottles and Jars
- Motor Oil (NO Oil Filters)  
*No fee, oil filters accepted at Rattlesnake*
- Paper

High Grade Paper (Copier/Ledger)

Mixed Scrap Paper (Magazines/Junk Mail)

Box Board (Cereal/Shoeboxes)

Newspaper

- Paper Milk Cartons and Juice Boxes
- Plastics
- Scrap Metal
- Tin Cans
- Tires  
*Extra fee (more with rim)*
- Wood Waste  
*Extra fee (NOT accepted at either transfer station)*
- Yard Debris  
*Extra Fee (NOT accepted at either transfer station)*

#### Tipping Fee Information

*Both stations use Volume-based fees.*

#### Discounts

- Senior Discount per load (60+ years) \$1.00
- Recycling Discount per load \$1.00

## 8.3.2 Transfer Station Information

### HOUSEHOLD GARBAGE

- Up to 3 cans -- maximum of 110 gallons household waste (Minimum charge) \$7.00 \*
- More than 3 cans to 3 cubic yards \$13.00 \*
- Over 3 cubic yards of waste \$5.00/cubic yard \*

### Construction and Demolition Debris (Public and Commercial)

*Construction and demolition debris is waste generated from remodels, construction or home improvement projects. Cement, dirt, land clearing debris such as stumps and rocks, sheet rock, shingles, tar paper, tile, wood, linoleum and carpet are some examples of waste considered construction and demolition debris.*

\$7.00 per cubic yard \*

### TIRES

*If a customer places a tire in the disposal pit, the normal fee for the tire will be doubled plus any handling fees to retrieve the tire from the garbage. Recovered tires will NOT be returned to the customer.*

- Tires smaller than 17" rim diameter (tire only):  
\$2.00 each  
With wheel: \$3.00 each
- Tires 17" through 24" rim diameter (tire only):  
\$6.00 each  
With wheel: \$10.00 each
- Tires 24" through 30" rim diameter (tire only):  
\$20.00 each

### APPLIANCES/ WHITE GOODS

Appliances containing refrigerants (either with or without motors or compressors) will be charged the appliance fee. No exceptions. If a customer places an appliance in the waste trailer or drop box, the fee for the appliance will be doubled plus any handling fees to retrieve the appliance. The appliance will NOT be returned to the customer.

Appliances containing refrigerants

(Refrigerators, freezers, air conditioners, heat pumps):  
\$15.00

White goods with electric motors

(Washers, dryers, dishwashers, etc.):  
\$15.00

Other appliances

(Stoves, water heaters and appliances with motors removed):  
No Charge (recycle in metals box)

Motors removed from appliances:

No Charge (recycle in metals box)

### 8.3.2 Transfer Station Information

#### PROPANE TANKS

*Tanks larger than 25 gallons are not accepted at Lane County sites. These fees apply to refillable propane tanks; small disposable propane canisters may be recycled for free.*

Up to 10 gallon capacity:

\$4.00 each

Over 10 gallons up to 15 gallons:

\$10.00 each

Over 15 gallons up to 25 gallons:

\$25.00 each

*\* Disposal price quoted assumes that loads are covered or secured. By Lane County ordinance, disposal fees double for unsecured loads. This policy is intended to reduce litter on the public roadways, and to keep our community beautiful. Do your part – tarp, secure, or cover your load.*

#### SPECIAL SERVICES

##### Batteries

*Including automotive (lead-acid), alkaline (dry cell), lithium, mercury, silver oxide, button cell, nickel-cadmium (rechargeable), and others. Alkaline batteries bearing a "green tree", "green leaf" or other symbol which identifies the battery as mercury-free are not accepted and should be thrown in the trash.*

*Lane County also sponsors battery collection at over 40 retail locations in the Eugene-Springfield area. Batteries collected at these locations include all of the types listed above except that lead-acid and alkaline batteries are not accepted due to space limitations.*

*Batteries collected through these programs are recycled, except alkaline and lithium batteries, for which no feasible recycling technologies exist. Alkaline batteries are landfilled at an approved hazardous waste landfill, and lithium batteries are incinerated.*

##### Motor Oil

*Includes transmission and hydraulic fluids, but not gasoline, diesel or other fuels.*

##### Sharps (Needles)

*Accepted at all sites if they are securely packaged in a red, rigid, puncture-proof plastic container. Commercial sharps containers are available locally; other containers such as liquid detergent bottles may also be used with good results, as long as they are red, hard plastic. Milk jugs, coffee cans, soda bottles and similar containers cannot be accepted.*

##### Antifreeze

*All types of automotive coolants are accepted. No cutting fluids, machine coolants, etc.*

##### Oil Filters (Only at Rattlesnake)

## 8.4 Partner Agency Summaries

### 8.4.1 Oregon State Parks

## 8.4 Partner Agency Summaries

### 8.4.1 Oregon State Parks

According to the Oregon Parks and Recreation Department's official website, its mission is to "provide and protect outstanding natural scenic, cultural, historic and recreational sites for the enjoyment and education of present and future generations." The 50 state park campgrounds (comprising 5,650 campsites) and 171 day-use park areas (consisting of 4,500 picnic sites, 63 picnic shelters, and 28 group picnic areas) are popular locations for Oregon residents and out of state vacationers to visit. In 2001, Oregon State Parks had the nation's third highest ranking in park visitors per acre (407 visitors per acre per year), and was sixth in the nation for day use attendance. The Oregon Parks and Recreation Department employs a staff of 359 full time and 365 seasonal employees (as of November 1, 2001). Seven citizens appointed by the governor make up the Oregon Parks and Recreation Commission, which oversees the Department's business. Revenue for the 2001-2003 budgets totaled \$130.9 million and was primarily provided by the state lottery, park user fees, and RV registration. On November 30, 2000, the Oregon Parks and Recreation Department adopted a set of eight goals titled "Target 2014" to be accomplished in the next decade. Many of these goals directly relate to the issue of illegal dumping. Goal two, for example, strives to "embody the principles of natural resource conservation in land stewardship and agency business practices." Steps to achieve this goal include working "with conservation organizations, other state, local and federal agencies, and park neighbors to protect park watersheds and ecosystems," creating "memorable interpretive experiences that come alive for park visitors, so that they support overall conservation principles, and understand how resource management is practiced in the parks," as well as offering "camping and outdoor skills education to foster life-long interest in the outdoors and to instill stewardship values in a growing urban and changing rural populations."

The Oregon Parks and Recreation areas in and around Lowell, Oregon comprise the Southern Willamette Management Unit, one of six management areas in Oregon. The Southern Willamette Management Unit is located within Area 3. This area encompasses the parks of Fall Creek State Recreation Area and the Southern Willamette State Parks. Cascara Campground, North Shore Day-Use Park, Winberry Park, and Fisherman's Point Group Camp comprise the Fall Creek State Recreation Area. Elijah Bristow State Park, Dexter State Recreation Site, Jasper Recreation Site, and Lowell State Recreation Site make up the Southern Willamette State Parks. The Pengra boat ramp and Logjam State Park areas are considered part of Lane County Greenway Properties.

Seven people work in this management unit. Four park rangers monitor State Park land and have primary responsibility for their area. Ranger Julie Whalen oversees the parkland in the Fall Creek area, Ranger Steve Wilson monitors Elijah Bristow and Dexter, and Ranger Paul Tollenaar monitors parks in the Willamette Greenway area, in addition to Alderwood and Washburn park areas (which were not surveyed in the illegal dumping project). Ranger Larry Vaughn roams parkland in the area and helps whoever is in need. Team Leader Doug Crispin has both field and management duties and



## 8.4.2 U.S. Army Corps of Engineers

oversees the parks of Jasper and Lowell. Kees Ruurs and Becky Simmons are administrative personal. Of the seven State Park employees in the Southern Willamette Management Unit, only Whalen, Wilson, Vaughn, and Crispin can issue citations.

The State Parks in Area 3 are home to three park hosts. Lee Weller is park host at Dexter, Rodger and Jo Harshbarger are hosts at Lowell, and a new host at Elijah Bristow has recently been hired. Six boat ramps, at least fifteen picnic areas, a disc golf recreational site, and abundant hiking and biking trails can also be found at parks in this area. Elijah Bristow State Park is the largest park in the area, boasting 847 acres. Dexter State Recreation Site encompasses 100 acres, followed by Jasper Recreation Site, which includes 60 acres of State Park land. Elijah Bristow, Dexter, and Lowell park areas are open year-round. Winberry, Cascara, Fisherman's Point, and Jasper park areas are open seasonally from May 1 until September 30.

## 8.4.2 United States Army Corps of Engineers

The United States Army Corps of Engineers (USACE) is comprised of civilian and military personnel working on engineering and environmental matters. Most of their projects involve regulating and controlling navigable waters in the United States for resource use. (Thus, most of the land they own is in the vicinity of waterways, and can include reservoirs, dams and rivers, as well as surrounding land.) The Portland District manages the Willamette Valley Project, which includes the reservoirs in our study, Fern Creek, Lookout Point and Dexter, as well as ten other reservoirs in the Willamette River drainage system. The reservoirs were designed to preserve the quality of the valley's environment by providing flood control, power generation, irrigation, and navigation, and to help maintain water quality and recreational activities.

The USACE has several different goals regarding management of the nation's water resources. They are committed to "improve and maintain navigation, prevent and reduce flood damage, provide electrical power, regulate activities in wetlands and navigable waterways, and provide stewardship of the region's natural resources." They accomplish this through a "quality management process" of the lands they oversee. The USACE manages 97,000 square miles of land and water in Oregon and Southwest Washington. In Lane County, the USACE owns 9,697 acres, or about .33% of the total area.

In the Lowell area, the USACE manages the reservoirs of Lookout Point, Dexter and Fall Creek, and surrounding land. Some USACE land has been leased to Oregon State Parks for management of popular recreation areas. The reservoirs of Lookout Point and Dexter were completed in 1954. Together, they are about 17 miles in length and have a combined area of 5,384.5 acres when full. The land surrounding these reservoirs totals 3,895.5 acres. The USACE runs three day-use areas around Lookout Point: Meridian, Signal Point, and Ivan Oakes. Fall Creek was completed in 1941. The reservoir is 6.8 miles in length, and has an area of 1,820 acres when full. The land surrounding the reservoir totals 1,717 acres. The USACE runs three day-use areas around Fall Creek: Drinkwater, Tufti and Nelson Creek. The area of land managed by the USACE in the Lowell area totals 12,817 acres.

### 8.4.3. U.S. Forest Service

The local office for the Willamette Valley Projects is located in the city of Lowell, about 25 miles from Eugene, at Lookout Point reservoir. Four rangers are currently employed in the area of our study; they are responsible for the general maintenance of USACE land in the area. They work under the Chief of the Natural Resource Management section in the Portland District. The office for the Portland District of the USACE is located in Portland.

### 8.4.3 United States Forest Service

The United States Department of Agriculture Forest Service (USDA Forest Service) is charged with the management of national forests and grasslands. ‘Caring for the Land and Serving the People’ is their motto. The Forest Service attempts to put this motto into action in their “ecosystem management approach” that connects “ecological, economic, and social factors to maintain and enhance the quality of the environment to meet current and future needs.” Established in 1905 by Congress, the Forest Service has expanded its first objectives – to provide quality water and timber for the Nation’s benefit – to include the provisioning of forage for livestock, the creation of recreational opportunities, and the care of wildlife. The Forest Service’s five main activities encompass these objectives. They are:

1. Protection and management of natural resources.
2. Research on all aspects of these resources.
3. Cooperation with communities to improve rural areas and manage resources effectively.
4. Creation of a workforce that mirrors the diversity of American people.
5. Assistance in the management and protection of international forest resources.

Two of the Forest Service’s main activities are the protection and management of natural resources, and cooperation with communities to improve rural areas and manage resources effectively. Both of these activities will be served in the illegal dumping project. The cleanup of illegal dumps and cessation of illegal dumping allows the Forest Service to improve conditions in rural communities and manage their lands safely and effectively.

The Forest Service manages over 191 million acres of United States land divided into nine different regions. Within these regions, the Forest Service has 155 national forests and 20 grasslands. Inside each of these national forests or grasslands there are several ranger districts. There are more than 600 ranger districts within the Forest Service employing 10 to 100 people. The Forest Service employs roughly 30,000 people nationwide.

The study area for this project is in the Pacific Northwest Region. Found in Oregon and Washington, this region contains 19 National Forests, a National Scenic Area, National Grassland, and two National Volcanic Monuments. This project is located in the Willamette National Forest, under the Middle Fork Ranger District, whose main office is located in the city of Lowell. The Willamette National Forest is 110 miles long, stretching from east of Salem to northeast of Roseburg. It has many opportunities for recreation

## 8.5 Individual Interview Reports

### 8.5.1 Oregon State Parks

including: camping, biking, hiking, and fishing. There are five employees in the Middle Fork Ranger District who specifically deal with the problem of illegal trash dumping.

## 8.5 Individual Interview Reports

### 8.5.1 Oregon State Parks

*Interviewee: Doug Crispin*

*Title: Team Leader*

*Years at Job: 18 years*

*Agency: Oregon State Parks*

*Contact Info: (541)-954-3513*

*Interviewer: Chant Eicke*

*Date/Time: Tuesday, January 27, 2004, 8:30 AM*

#### Overview:

At the Jasper Park office of Oregon State Parks, Team Leader Doug Crispin holds administrative and field duties, servicing Jasper and Lowell Parks. Crispin worked with the National Forest Service for 13 years, and then began employment at Oregon State Parks in 1985. Crispin has had a large amount of experience with illegal trash on public lands.

Team Leader Crispin says daily littering can be a huge vacuum of time and energy. Each park can require up to two hours of additional time every weekend to cleanup the usual paper litter and other accumulated recreational trash. Household waste is often located in trashcans that are cleaned anyway, and do not necessitate much additional cleanup time. Installing recycling containers has had limited success in some parks. Users generally separate their recyclables, but trash is often placed in the recycle bins, and thus requires additional sorting time and labor. Non-profit groups, like the Girl Scouts and the Lowell Public Library, have participated in sorting recycle bins. Bottle deposit refunds then go towards their respective organizations.

Team Leader Crispin finds that illegal (homeless) camps generate the most severe illegal trash dump sites. Last year, six or seven illegal camps were found at the Logjam Access site, and 3-4 one-ton loads of trash were removed. One site contained around 200 syringes. This form of illegal trash deposition occurs annually. At the Logjam Access site, local citizens who regularly visit the area have an important role in discovering illegal camps and calling them in to Crispin's office.

Team Leader Crispin states that enforcement is a vital, yet under-utilized tool in confronting the illegal trash problem. Though it is State Park regulation that the Rangers not open bags of trash and search through them, investigation can proceed if names, addresses, or other personally identifying information is apparent. Though investigation may lead to the source of the problem, citations can only be given when a

## 8.5.1 Oregon State Parks Interview Reports

Ranger with enforcement status witnesses the act of dumping. When State Park personnel discover the perpetrator, the perpetrator is usually contacted by means of a letter or phone call. These techniques have been variably successful in mitigating the problem. State Police can be contacted and may proceed with investigations and issue citations for severe or persistent dumping. This has been helpful in the past.

Team Leader Crispin believes that keeping the appearance of the public lands clean and orderly is important in preventing illegal dumping. When trash is visible, more trash quickly accumulates. This phenomenon goes beyond the effect of trash inspiring more dumping. Crispin notes that gravel roads and gravel parking lots are much more likely to be dumped upon than paved areas. These same areas are often easy targets because they are open at all hours, unlike day-use only, gated parks.

Team Leader Crispin says there is no single solution to this pervasive and widespread problem. He takes into account the local circumstances and approaches problems accordingly. It is important to understand the specific and local implications of location, resources, and deterrents when dealing with illegal trash activities. At times, simply removing the trash receptacles for the period of a few weeks or a month will break the dumping cycle. In other cases, phone calls, writing letters, or knocking on doors and talking to neighborhood residents are the most affective means of mitigation.

Team Leader Crispin has noticed that trash ethics change yearly, making public awareness and education key to solving the problem. He finds that most people simply do not know how easy and cheap it is to properly dispose of waste. Illegally dumped trash often appears to originate from lower income groups. To prevent this, Crispin recommends an annual “Amnesty Day”, when people can properly dispose of their waste free of charge. Crispin also recommends the use of sliding fees at waste disposal sites, because lower class individuals and families may simply lack the financial resources for proper waste disposal.

### Key Points:

#### Dump sites

- Weekend littering can require up to 2 hours additional cleanup per park each Saturday and Sunday.
- Recycling receptacles have met with limited success.
- Illegal camps are most severe source of illegal trash.
  - 6 or 7 illegal camps found in 2003 at Logjam Access.
    - 3-4 one-ton loads of trash present.
    - One site contained around 200 syringes.

#### Enforcement

- Vital yet under-utilized.
- Citations can only be given upon witnessing a crime in action.
- Investigations can only lead to phone calls or letters.
  - State Police are contacted for severe or persistent dumping, and may issue citations resulting from investigation.

## 8.5.1 Oregon State Parks Interview Reports

### Prevention

- Appearance
  - Presence of trash leads to further accumulation of trash: bandwagon effect.
  - Gravel roads and parking areas more likely dumped upon than maintained, paved areas.
- No absolute answer or technique.
  - Each area has different circumstances requiring different methods of prevention.

### Further Insight

- Social and public ethics concerning trash change over the years.
  - Public awareness and education are central to mitigating the problem.
- Lower income/ poverty groups (financially handicapped) need to be addressed.
  - Provide annual “Amnesty Day”.
  - Sliding transfer fees relative to income status.

*Interviewee: Paul Tollenaar*

*Title: WRG Ranger*

*Years at Job: 25 years*

*Agency: Oregon State Parks*

*Contact Info: (541)-954-7637*

*Interviewer: Chant Eicke*

*Date/Time: Tuesday, January 27, 2004, 7:15 AM*

### Overview:

Ranger Tollenaar’s area of responsibility includes the Lane County Greenway Properties, and the Alderwood and Washburn Parks. Tollenaar is responsible for emptying trashcans and cleaning up any other forms of present trash at these locations on a daily basis. The areas known as Pengra Boat Ramp and Logjam Access, within the Lane County Greenway Properties, are included in the current project. These areas are seldom locked, never hosted, and are available for public access at all times of the day and night.

Ranger Tollenaar finds a variety of illegal trash on a regular basis. He often finds residential waste in the form of garbage bags placed in and around trashcans, thrown into nearby blackberry bushes, or thrown over nearby slopes. Tollenaar also finds trash debris such as construction materials, auto parts, pet and game carcasses, yard debris, and trash in the form of common litter, e.g., cigarette butts, beer bottles, and aluminum cans. Illegal trash accumulates relatively consistently year round, with recreational trash occurrences peaking in the summer season, and illegally dumped carcass occurrences peaking during the hunting season. Tollenaar tackles the cleanup of these sites on a day-to-day basis, estimating an average of 10 additional hours working with

## 8.5.1 Oregon State Parks Interview Reports

illegal trash each week. The illegal dumping of yard debris is particularly offensive because invasive species often spread from dump sites, and are frequently washed downstream where they spread into other, less controlled areas. He specifically notes the pervasive spread of English Ivy and Vinca from piles of dumped yard debris.

Managing the waste in these public parks is part of Ranger Tollenaar's job description. No significant additional resources, in terms of equipment, budget, or extra labor, are provided by the state agency unless a site of extraordinary trash (by toxicity, environmental hazard, or sheer weight/volume) is found. For Ranger Tollenaar, the hydraulic "Tommy Lift" on the gate of his State Park truck is the most crucial piece of equipment for handling trash. Unfortunately, among the rangers of this management unit, his is currently the only truck available with this accessory, necessitating a sharing of equipment that can complicate daily schedules and tasks.

Ranger Tollenaar leads an annual volunteer cleanup activity at Glassbar Island Landing, outside of the area covered by this project, to help reduce accumulated litter and homeless occupancy waste. Regular beach users of this area participate in the activity. He feels this event successfully raises awareness of trash issues, and is a productive way to deal with a 'hot spot' of illegal trash collection. Fifteen citizens volunteered in the most recent cleanup activity for a period of about 4 hours.

Ranger Tollenaar states that the simplest and most effective way to approach the illegal dumping problem is to place a dumpster at each major dump site, and haul them away when full. In this scenario, the trash that would likely end up scattered upon the ground, in the forest, and over difficult slopes, would more likely be placed directly into the dumpster, avoiding both the environmental damage and the extra State Park time and labor spent on cleaning the area. He also states that a form of low-income voucher, that provided a wider access to the county landfill, would help address the socio-economic aspects of illegal dumping.

### Key Points:

#### Dump sites

- Part of the Lane County Greenway Properties.
- Always open to access.
- Household and recreational debris.
- Fairly consistent illegal trash buildup.
  - Increase carcass appearance during hunting season.
  - Increased recreational trash during summer season.

#### Cleanup

- Around 10 additional hours each week spent on illegal trash.
- Hydraulic "Tommy Lift" crucial to the work.
- Part of job description.
  - No separate budget.

## 8.5.1 Oregon State Parks Interview Reports

### Prevention

- Keep areas clean.
- Public involvement.
  - Raises awareness.
  - Good way to tackle trouble spots.

### Further Insight

- Recommends placing dumpsters at sights of consistent problems, emptying them as they are filled.
  - Prevention of environmental damage, as well as time and labor costs associated with clean up, may be possible by channeling illegal dumping activities.
- Need to address the socio-economic aspect of the problem.
  - Develop a low-income voucher system.

*Interviewee: Larry Vaughn*

*Title: Ranger*

*Years at Job: 24 years*

*Agency: Oregon State Parks*

*Contact Info: (541)-912-3785*

*Interviewer: Chant Eicke*

*Date/Time: Wednesday, January 28, 2004, 12:30 PM*

### Overview:

Ranger Larry Vaughn began working with Oregon State Parks in 1979. He has primarily witnessed the illegal dumping of household wastes during his time with State Parks. Ranger Vaughn is not assigned to a primary area of responsibility, but instead works on various projects throughout the Management Unit, and assists other rangers in daily tasks.

Ranger Vaughn estimates that he spends an average of 4 hours per week working specifically with illegally accumulated trash in various forms. The dumping of household garbage into trashcans is a common problem. To prevent this, Vaughn recommends placing locked bars over dumpster lids that allows them to open only far enough for small items to be disposed. Having more trashcans and dumpsters helps to manage the trash by keeping it contained, but the best illegal dumping prevention method is the presence of park or camp hosts. Vaughn finds working with inmate crews and community service personnel to be rewarding, because a sense of accomplishment, ownership, and empathy for the complexity of the problem is attained. He feels this type of education addresses the problem and curbs its source.

Ranger Vaughn feels State Park trucks are in need of hydraulic "Tommy Lifts". Ranger Paul Tollenaar's truck has the only hydraulic lift in the Southern Willamette Management Unit. When heavy items need to be moved, Tollenaar must often share his



## 8.5.1 Oregon State Parks Interview Reports

truck, complicating the schedule of daily tasks. Vaughn feels that a dump truck is also needed to eliminate the necessity of moving large items multiple times. Trash is seldom taken directly to the dump, and because the State Park vehicles are used for many purposes, trash must often be removed from them to accommodate other truck bed uses, necessitating a later reloading of the trash for transport to the dump.

Ranger Vaughn feels that the dumping of illegal trash is a fairly generational problem because younger generations are more apt to respond to illegal waste problems, and older generations, that have been littering and illegally dumping for many years, are less likely to change. Eliminating decade-long family dumping habits may be impossible, but education directed towards younger generations is vital. Greater social change may be affected by youth education. Facilitating a way for the poor to properly dispose of their trash is also important. Vaughn feels that there will always be poor people, and while their waste options are limited, there will always be illegal dumping. Looking deeper into the socio-economic issues of waste disposal, Vaughn relates his relationship with a few of the homeless people that lived along the McKenzie River in the eighties. When asked about their garbage, the common response was, “are you out of your mind? What about 40 other things?” This trash problem is part of a larger social issue that needs to be addressed, and until that occurs, Vaughn believes keeping the homeless off the river will reduce the environmental impact of their wastes.

### Key Points:

#### Clean-up & Prevention

- Average of 4 additional hours each week working with illegal trash.
- More trashcans and dumpsters help manage the illegal trash.
  - Placement of top bar restricting dumpster lids from fully opening helps keep household waste to a minimum.
- Best prevention is personnel presence.
  - Park/Camp host.
- Clean up by inmate and community service crews.
  - Helps people develop a vested interest in the trash problem
  - A form of education.

#### Equipment

- Hydraulic lifts on trucks are essential.
  - There is only one available to the three rangers at Jasper Park office.
- Dump truck needed.
  - Eliminates moving the trash multiple times.

#### Further Insight

- Generational problem.
  - Need to educate the younger generation.
- Economic problem.
  - Need to facilitate a way for the poor to dispose of their trash.
- Homeless problem.

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- Need to keep the homeless off the river to minimize environmental impacts.

*Interviewee: Julie Whalen*

*Title: Ranger, Caretaker*

*Years at job: 11 years with State Parks*

*Agency: Oregon Parks and Recreation Department*

*Contact Info: (541)-912-7209*

*Interviewer: Stephanie Erickson*

*Date/Time: Monday, January 26, 2004, 2:00 PM*

### Overview:

Julie Whalen has been employed with the Oregon Parks and Recreation Department since April of 1992. She oversees land at the Cascara campground, North Shore Day Use, and Winberry Day Use parks. Approximately four to five percent of her working time is spent cleaning up dump sites at these parks. Winberry tends to generate more illegal dumping than North Shore and Cascara. Dumping patterns are seasonal: litter from recreational (boating, picnicking) activities is a problem during summer months, whereas household garbage dumping primarily occurs during the winter when parks are closed. Whalen identified two basic types of illegal dumpers: those who litter through recreational activities and those who dispose of household garbage in park trashcans. Although illegal dumping in the Cascara, North Shore, and Winberry parks seems never-ending, Whalen was knowledgeable of solutions to the problem, and offered personal hopes and stories about keeping parks clean and dump free.

According to Whalen, household garbage dumping is primarily a problem during the winter. Nearby residents (who are probably responsible for this type of dumping) are less likely to dispose of their household garbage during the summer because more people are around park areas. Whalen comes across at least one 32-gallon can of home garbage at Winberry Viewpoint once a week (often on Thursdays) during the winter. Whalen speculated that the regular weekly schedule could be related to garbage pickup days. State Park garbage cans are stuffed with so much household garbage that the trash must be transferred into two or three separate garbage bags because the garbage in one trashcan liner is too heavy to lift. Garbage cans near main roads are popular dumping locations because they are easily accessible. To discourage household garbage dumping at the North Shore Day Use park, Whalen moved the garbage can to a location further away from the road, but eventually removed the garbage can altogether. Significant household garbage dumping has not occurred at this location since.

Whalen spends two to four hours per week cleaning up illegal dumping during winter months. Litter is so severe during the summer that a seasonal ranger is hired solely for the purpose of picking up trash. Eight hours per shift, per day is spent cleaning Cascara, North Shore and Winberry during the summer. Three to four hours each day is solely dedicated to cleaning up the litter at Winberry. The Oregon Parks and Recreation Department does not contract out their garbage. State trucks used to haul out garbage

## 8.5.1 Oregon State Parks Interview Reports

are leased. “Litter getters” and plastic buckets are owned. Whalen estimates that \$1000-5000 is spent on this equipment each year. Rangers always have access to the equipment. There is not a budget set aside for dump sites because the problem is generally random. There are not specific sites where many people are dropping off large amounts of household items and garbage. In the past year, three volunteers have helped clean up litter in the parks. Occasionally a neighbor will come by to pick up deposit aluminum cans. Whalen hires a crew of inmates twice a year to pick up easily missed pieces of litter that park rangers were unable to clean up. Whalen is satisfied with the ability to clean up illegal dumping and litter at Cascara, North Shore, and Winberry State Parks. Time is the only lacking resource. “A lot could be done rather than picking up after people,” Whalen noted.

Park rangers like Julie Whalen cannot issue illegal dumping citations unless the offender is seen putting home garbage in trashcans. When the dumper is not caught in the act, rangers only have the authority to issue warnings. Receipts and distinguishable pieces of mail found in illegally disposed household garbage often provide rangers with names of the people who are dumping. Whalen writes friendly notes to these individuals asking them not to put their home garbage in State Park trashcans, reminding them of the \$109 fine if the behavior is continued. If the behavior does continue, rangers can turn individuals into the local police. An average of two to three citations are issued by police officers every year for illegal dumping. Whalen writes an average of one warning letter per week. Fewer warnings are written during the summer. If a local resident witnessed illegal dumping he or she would have to get in touch with Whalen or another ranger to report the incident. There is no current phone number for the public to report illegal dumping.

Local residents primarily use State Parks in the Fall Creek area. These areas are not destination parks. Because of this, Whalen explained, it is very difficult to change the culture surrounding illegal dumping because the behavior has been passed along by generation. Their parents dumped, they dump, and it is likely that their children will continue the trend. Whalen suggested that putting up a gate at the entrance of North Shore (to be closed during the night) might help retrain residents not to dump. Citizens could get used to the park being closed at night, and might eventually understand that it is not an acceptable place to dispose of garbage. The difficulty in finding someone to open and close the gate hinders this solution. Increased enforcement of parks during the summer months might also help prevent illegal dumping. At parks where Whalen has previously worked, the cleaner the park was kept, the cleaner it stayed. Community cleanup days and educational events have been implemented in the past. In the spring of 2003, fifteen people in the Lane County area worked for three hours with Army Corps rangers, primarily at North Shore, cleaning up litter. Whalen felt the volunteer cleanup event was a success, and would like to think that it made a long-term difference in mitigating illegal dumping. Whalen feels that putting up a sign that discouraged against illegal dumping might also help the problem, but signs usually take years to arrive. All State Park signs must be ordered through the State’s Department of Corrections, and the parks in the Fall Creek area are not of top priority. The most promising and long-term solution to the issue of illegal dumping seems to be the State Parks’ Junior Rangers program. In this program, children between the ages of eight and twelve learn the

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difference between good and bad camping. Activities like recycling and cleaning up litter at campsites earn these children award-like stamps. Catching children at a young age is important in promoting life-long values that demote illegal dumping. About twenty children participated in the Junior Rangers program on Fridays, Saturdays, and Sundays during the summer of 2003. Parents are not usually involved in Junior Ranger activities, but Whalen believes that children can significantly influence better park values upon their parents.

### Key Points:

#### Dump sites

- Limited to household garbage and park-generated litter.
- Problematic areas include trashcans and park areas near main roads.
- Illegal dumping is a seasonal problem
  - Household garbage disposal occurs during the winter.
  - The bulk of recreational litter occurs during the summer.

#### Cleanup

- During the summer
  - A seasonal employee is specifically hired to clean up litter.
  - Eight hours per day is spent cleaning parks in the Fall Creek area.
- During the winter
  - 4-5 percent of Julie Whalen's time (2-4 hours each week) is spent cleaning up household garbage dump sites
- Equipment used for cleaning up dump sites is always available and costs anywhere from \$1000-5000 each year.
- Vaulted toilets at Cascara were recently leaking, but before a contractor could look at the leak, garbage had to be pumped out of the toilets. Whalen had several different contractors come to the area merely to offer bids for removing garbage piece by piece from toilets. Bids ranged from \$300 to \$1600 per toilet. Whalen manages five vaulted toilets at this site. Park visitors disposed of aluminum cans, diapers, and whole bags of garbage in the toilets (to name a few items), even though a garbage can was situated within feet of the bathroom door.

#### Enforcement

- Park Rangers can only issue a citation if the dumper is caught in the act.
- Police officers can issue citations for illegal dumpers.
  - The fine is \$109.
- Rangers usually send illegal dumpers warnings in the form of a letter.
  - Whalen writes an average of one warning letter per week.
- There is no current phone number for the public to report illegal dumping.

#### Prevention

- Signs would help prevent illegal dumping, but take years to arrive after being ordered.

## 8.5.1 Oregon State Parks Interview Reports

- Gates cost about \$1500 and would discourage dumping.
  - Someone would need to be hired to open and close the gate at night and in the morning. That person would be paid five dollars to open the gate and five dollars to close it.

### Further Insight

- It is difficult to encourage local residents not to illegally dump because they have been doing it for so long.
- People in the area “don’t mind sitting in garbage.” “How do you get people to respect their own parks?” Whalen inquired.
- Adults in the area do not seem likely to want to participate in volunteer clean up days or listen to someone talk about the negative aspects of illegal dumping.
- Teaching children at an early age to keep parks clean seems most promising. These children could then encourage proper park values upon their parents.

*Interviewee: Steve Wilson*

*Title: Elijah Bristow Ranger, Caretaker*

*Years at Job: 27 years with State Parks, 10 years on and off at Elijah Bristow*

*Agency: Oregon State Parks*

*Contact Info: (541)-912-3784*

*Interviewer: Stephanie Erickson*

*Date/Time: Thursday, January 29, 2004, 2:00 PM*

### Overview:

Steve Wilson is a ranger at Elijah Bristow State Park and Dexter State Recreation Site. He has been a ranger at various parks in Oregon including Tryon Creek State Park in Lake Oswego, Oregon and has worked at Elijah Bristow on and off for ten years. He does not consider illegal dumping incidents at Elijah Bristow a serious problem (“it’s a piece of cake here,” he noted), but regards dumping as a “phantom offense” with many potential solutions.

The illegal disposal of home garbage is a seasonal problem that primarily occurs during the fall and winter. Remote areas of land (in hidden and infrequently traversed park areas) tend to be problematic dumping locations. Day-use area parks usually generate more illegally dumped garbage than staff-mandated parks. Household garbage dumping often occurs during the evening when park employees are not around. Wilson remarked that dumpers “get pretty smart” about knowing when to dump. There has not been a significant change in the amount of household garbage dumping during the years that Wilson has been a ranger. This type of illegal dumping occurs throughout Oregon. Wilson has come across “everything from magazines to dinette sets, couches, and refrigerators,” at parks outside of the Southern Willamette State Park area. At Elijah Bristow he has encountered various kinds of home garbage, soap containers, chairs, and even an occasional microwave oven (or similar appliance). Such items are usually

## 8.5.1 Oregon State Parks Interview Reports

deposited (or “stuffed”) in garbage cans. Wilson called perpetrators “polite dumpers” because they use dumpsters and garbage cans when disposing of household waste. Wilson identified three basic types of illegal dumpers: household garbage dumpers, criminal dumpers who dispose of illegally poached animals or illegal drug remnants, and commercial dumpers who dispose of construction-type items and scraps.

Steve Wilson spends little time cleaning up illegal dumps at Elijah Bristow and Dexter (one hour per week at the most). Volunteers do not usually help clean up dump sites, Wilson reasons, because of possible health issues involved with residents handling garbage and other wastes. Much of the equipment used to clean up illegal dump sites in the area is leased through the State’s Department of Administrative Services. Tractors owned by State Parks are used for large illegal dumps. Wilson always has access to this equipment. Dump site cleanup is part of the State Park’s general maintenance and operations costs; there is no budget set aside for cleanup. Wilson does not think any resource is lacking for the clean up of illegal dump sites. He is satisfied with the ability to clean up garbage and restore parkland to pristine condition.

Citations are rarely issued for illegal dumpers. People are not likely to admit illegal dumping behavior, and it is difficult to target an individual who is not seen dumping. “People are very sneaky,” Wilson remarked. Wilson has never issued a citation or warning against illegal dumping, but Team Leader Doug Crispin writes many warning letters. There is no current hotline for local residents to call to report illegal dumping, but park offices receive two to three calls per year about witnessed dumping events. These calls are often received too late to catch illegal dumpers in the act. Incident reports documenting the date, time, and location of dumping infractions are filed for large-scale illegal dumps. Wilson has never experienced an illegal dump at Elijah Bristow or Dexter significant enough to be filed in an incident report.

The installment of gates at Elijah Bristow and Dexter has significantly reduced the problem of illegal dumping. Parks with gates have much less dumping than wayside parks that are open 24 hours. Hiring park hosts also considerably reduces dumping. Situating hosts within close view of dumpsters and trashcans discourages household garbage disposal because people do not want to be seen dumping. Placing locks on dumpsters or only allowing dumpster lids to open three or four inches has greatly reduced household garbage dumping. Chaining down trashcan lids and cutting small holes in lids (only allowing small items to be thrown away) have also helped combat the problem. These dumpster and trashcan techniques combined with a nearby park host location have proved most effective in reducing the problem of illegal dumping. “Signs,” Wilson explains, “make no difference at all” in limiting home garbage disposal. Prevention measures have never been too expensive, but can only be implemented to a certain extent. Being too restrictive would punish non-dumpers who correctly use park trashcans and dumpsters. Wilson suspects that an educational event, teaching about the negative aspects of illegal dumping, might help limit the problem, but he is unsure of how effective it would be in the long run. Education targeted towards children would be most effective. Adults, he feels, are going to dump regardless of signs and educational outreach activities. Free waste drop-off days at garbage sites would be very helpful in the area for reducing illegal dumps. Wilson considers illegal dumping an economic

## 8.5.1 Oregon State Parks Interview Reports

issue, and reasons that local residents are most likely dumping household garbage in State Park trashcans to escape tipping fees at waste disposal locations. Illegal dumping is usually worse during poor economic times. If a person has a choice between putting food on the table or paying to have garbage collected, the person will most likely pay for food. Some individuals might also think that State Parks have a lot of money and can afford to clean up household garbage. Aside from the occasional criminal or commercial dumper, Wilson believes that most household garbage dumpers are good at heart.

### Key Points:

#### Dump sites

- Most illegal dumping occurs in the evening.
- Household garbage dumping occurs year round, but primarily in the fall and winter.
- Household garbage dumping has not significantly changed in the past few years.
- Illegal dumps at Elijah Bristow and Dexter are contained in garbage cans.
- 1-2 household garbage dumps occurs during the summer.
- 1 dump, on average, occurs during the winter.
- Park Ranger Paul Tollenaar, of the Willamette Greenway park area would have more information about larger, illegally dumped items.

#### Cleanup

- One hour per week is spent cleaning illegal dumps at Elijah Bristow and Dexter.
- Most cleanup equipment is leased.
- Dump site cleanup budget is part of general maintenance and operations costs.

#### Enforcement

- Wilson suggested speaking with Team Leader Doug Crispin for further information about citations and warning.
- Wilson suggested contacting the State Park office in Salem for obtaining information about the number (and content) of filed incident reports.

#### Prevention

- Gates cost about \$1000 and are very effective at preventing illegal dumping
- Moving gates closer to main roads and park entrances from their current and farther locations would also help, but would cost about \$1000.
- Signs do not discourage local residents from illegal dumping
- Park hosts discourage people from dumping
  - Host are hired on a volunteer basis, but are provided with a place to park their recreational vehicle, paid water, electricity and sewage, and are given a cell phone for communication.
  - Lee Weller is the park host at Dexter.



### 8.5.1 Oregon State Parks Interview Reports

- The park host at Elijah Bristow recently left. Wilson suggested speaking with Becky Simmons at the State Parks office to obtain the new host's contact information.
- The only education event Wilson was aware of was an event about hazardous waste detection and cleanup targeted toward local agency employees.
  - An educational event about the negative aspects of illegal dumping has not occurred at one of Wilson's parks.
  - Education targeted at children would be most effect in mitigating illegal dumping.
  - An educational event would cost time and money. Wilson suggested contacting the main State Parks office to obtain exact monetary costs for education outreach materials and programs.

#### Further Insight

- Illegal dumpers are generally good people who simply cannot afford to pay tipping fees at waste disposal sites.
- Illegal dumping is worse during poor economic times.

8.4 Partner Agency Summaries  
8.5.2 U.S. Army Corps of Engineers

8.5.2 United States Army Corps of Engineers

*Interviewee: Dustin Bengston*

*Position: Head Ranger*

*Agency: United States Army Corps of Engineers*

*Years at job: 1 year at Lowell office*

*Contact Info: (541)-937-2131 ext 143*

*Interviewer: Jenny Laxton*

*Date/Time: Monday, February 2, 2004, 9:00 AM*

Overview:

Dustin Bengston is Head Ranger at the United States Army Corps of Engineers Lowell office. Though he has only worked in the project area for a year, he has had experience with illegal dumping in other areas of Oregon and has found many reoccurring problems.

Bengston frequently deals with household and construction wastes. These wastes can consist of anything from bags of garbage to lumber and carpet pieces. He finds that these items are usually dumped near the city of Lowell along access roads, next to pullouts, and in other places that are easily accessible by vehicle. The north shores of Lookout Point and Fall Creek Reservoirs are particularly troublesome. The USACE cannot patrol all of their land on a consistent basis, so garbage accumulates in areas not recently looked at.

The types and amount of garbage dumped on USACE land varies according to season and the current state of the economy. Rangers often find Christmas trees and other Christmas related materials in December and January. Animal carcasses are commonly dumped during the hunting season, and are often wrapped in tarps that hinder decomposition. The spring brings more piles of yard debris. Household garbage dumping increases and decreases seemingly randomly, though Bengston believes that it is probably connected to the economy and the unemployment rate. People most likely dump household garbage when they cannot afford to pay dumping fees at the local transfer station.

The USACE cleans up most illegal dump sites on their land because contract crew costs are prohibitive. They are, however, forced to use contract crews if a large amount of hazardous waste is found at a dump site. Every truckload of garbage, assuming that no hazardous substances are found, takes two employees about two to three hours to clean up and take to a transfer station. Each employee is probably being paid approximately \$40 an hour because the cleanup of one average-sized dump site costs the USACE around \$200 in employee hours. This does not include the time spent on trying to prosecute the perpetrator (anywhere from a couple hours to a week), or the cost of dumping fees at transfer stations. All of this money is included in the USACE's general

## 8.5.2 U.S. Army Corps of Engineers Interview Reports

budget. They do not have a particular fund set aside to deal with illegal dumping. The variable nature of illegal dumping makes it difficult to budget for.

After cleaning a dump site, the USACE tries to restore areas to as pristine a condition as possible. However, restoration is not a high priority. The trash itself does not usually create critical environmental damage unless hazardous waste is present, or the area becomes a repeat dump site.

In conjunction with the sheriff's department, the USACE does search for personal information in the trash that is dumped on their land to determine who the illegal dumpers are. The USACE can issue fines of up to \$500 if this information is found. A fine of \$150 is the typical issued amount. The state police can give heavier fines, especially if the dump site is within 1000 feet of a waterway, a \$1000 fine.

Preventative efforts to stop illegal dumping have centered on closing off access roads where dumping becomes a problem, placing land ownership signs, giving interpretive programs at campgrounds in the summer, and being part of statewide public lands cleanup days. However, many of the signs and interpretive efforts are not specific to the illegal trash dumping problem and focus more on public safety efforts.

Bengston believes that illegal dumping in the project area is tied to the closeness and easy access of public lands, the limited number of garbage collection service options in the area, the economic situation of the people in the area, and to illegal activities. □

### Key Points:

#### Dump sites

- Types of waste dumped:
  - Household garbage
  - Construction materials
    - Lumber
    - Metals
    - Carpet (difficult to get rid of, a growing problem)
    - Roofing material
  - Methamphetamine labs/wastes of other illegal activities
  - Materials dumped seasonally:
    - December-January
      - Christmas trees and wastes
    - Fall/hunting season
      - Carcasses and tarps
    - Spring
      - Yard wastes
  - Problematic areas for dumping:
    - North shore of Lookout Point Reservoir
    - North shore of Fall Creek Reservoir
    - Spur roads
    - Pull offs along roads

## 8.5.2 U.S. Army Corps of Engineers Interview Reports

### Cleanup

- Time spent cleaning up sites:
- 2 USACE employees
  - 2-3 hours per truck load of garbage
- Cost for the clean up of one truck load of garbage:
  - About \$200 for employee time
- Where the money for cleanup comes from:
  - USACE general operating budget
    - No fund set aside specifically for illegal dumping
- Attempt to restore area to pristine condition
  - Yes, as much as possible

### Enforcement

- The fines for illegal dumping:
  - Up to \$500, \$150 typical

### Prevention

- Deterrents used:
  - Signs
  - Barricades on roads
    - Most effective
- Education used:
  - Participate in statewide cleanups
  - Interpretive programs in campsites
    - Not specifically about dumping

### Further Insight

- *How much money does the USACE spend on fees at the dump for illegal trash in a year?*
- *How many fines do they issue per year for illegal dumping?*
- *How much does the amount of illegal trash vary per year?*
- *Are the carcasses found during the fall the result of poaching?*
- *What are the fees at the dump associated with carpet?*
- *What are the garbage collection services in the Lowell area and how expensive are they?*

*Interviewee: Dan Cottrell*

*Title: Park Ranger*

*Years at Job: Nearly 10 years (Since May 1994)*

*Agency: United States Army Corps of Engineers*

*Contact Info: (541)-937-2131 ext 143*

*Interviewer: Beth Webb*

*Date/Time: January 27, 2004 10:00 AM*

## 8.5.2 U.S. Army Corps of Engineers Interview Reports

### Overview:

Dan Cottrell is a Park Ranger for the United States Army Corps of Engineers. He is in the field daily, and comes across garbage weekly. He finds everything from “trimmings to lawn clippings to brush to household garbage.” Sewer discharge from recreational vehicles is also a problem. He attributes dumping to the expense of legal disposal and “plain laziness.” People feel it is easier to drive 2-3 miles to federal lands than it is to drive 7 miles to the dump or 14 miles to the transfer station. Problematic areas are those along the highway, mainly pullouts, and parking areas, especially near the dams. Cottrell is unsure if garbage on the abutments is solely recreational, but there is always some trash. If people dump, he says they are most likely to do it where they will be hidden from the public, e.g., down roads or in rural areas. Cottrell compares trash to fertilizer: “it will just grow more; if you don’t pick it up, it multiplies.” Even something as small as a candy wrapper can cause more trash to appear. This viewpoint is especially important during the summer recreation season when there are more people and litter. Boat areas tend to receive a large amount of trash. Some trends Cottrell notices include established dumping sites and seasonality of dump site composition. He notes the amount stays constant during different seasons. There is a large amount of food waste and bottles during the summer because more people are around. Although individual events are not severe in scale, the overall impact of multiple events is significant. During the winter, dump events are larger in scale, and lawn clippings, household trash and tree trimmings are more prevalent. Cottrell explains that in winter, illegal dumpers have a lower likelihood of getting caught because it stays darker longer. Locals (people living within 30-40 miles) also know that there are fewer rangers patrolling in winter.

Time spent on cleanup varies seasonally. At some points in the summer, it is not uncommon to spend half a day cleaning dump sites. For a year around average, Cottrell estimates 2-4 hours a month are spent on cleanup per ranger. Although the USACE does not hold any public clean-up events, frequent users clean some areas. Cottrell says some recreational users, namely joggers and dog walkers, do impromptu clean up because they enjoy clean lands. The USACE has a service contract with a janitorial service to service the vault toilets on their property. There is a line item included for general trash pickup in the janitorial contract, but these services only hit the recreational areas during the summer. The USACE owns all of the equipment they use, including sharps containers, garbage pickers and a tractor. Cottrell feels the USACE is up-to-date on equipment, but there may be more automated systems they could use. There is no specific budget for cleanup; it is included in labor and general maintenance. Cottrell believes the presence of additional rangers would increase cleanup efficiency. The USACE currently has 4 rangers in the area, but having 6-10 could decrease the cleanup time significantly.

Fines that Cottrell added to the list given by Peg Morrow in her interview include: Discharge of waste from a vehicle, and Discharge of waste onto project lands. Very few citations are issued per year; Cottrell has only written 1 or 2 since working for the USACE. “It’s not so much that it might not be helpful, it’s that we don’t have a lot of support from above.” Fines are generally considered not to be the best solution.

## 8.5.2 U.S. Army Corps of Engineers Interview Reports

To prevent dumping, the USACE blocks access by putting up various barricades. “If people get far away from their getaway cars, they don’t want to [dump illegally].” As for the effectiveness of blocking access, Cottrell notes that it at least prevents people from dumping in the whole area, and minimizes it to an area around the gate.

Cottrell feels illegal dumpers do not realize the impact they have. They only consider their small impact, and not the larger impact of everyone else dumping. Cottrell believes areas need to be kept clean, and solutions like education should be proactive. Education should be directed at elementary and middle school kids because parents are passing on dumping habits to the next generation. Cottrell believes that interaction among agencies has gotten better with the Forest Service and Oregon State Parks. However, it is difficult because they are “stuck to the properties that they work for.” There is no budgeted time or effort for interagency collaboration, which is necessary for the close interaction to exist.

### Key Points:

#### Dump sites

- “Trimnings to lawn clippings to brush to household garbage”
- Sewer discharge is also a problem
- Problem areas: along highway and parking areas
- People dump where they won’t be seen
- Trash is fertilizer: “it just grows more”
- Trends: long-term, seasonal
- *Survey abutments of dams*

#### Cleanup

- Depends on season
- Yearly average: 2-4 hrs/month
- Recreational users pickup some trash
- Need more people for cleanup
- *Research Janitorial Contract...How much, with whom, etc.*
- *Research new technologies surrounding cleanup*
- *What budget line items include cleanup?*

#### Enforcement

- Very few citations per year
- Not a lot of support from above
- *Why are fines not the best solution?*

#### Prevention

- Block access
- Minimizes area to around gate

#### Further Insight

## 8.5.2 U.S. Army Corps of Engineers Interview Reports

- Personal impacts add up to larger impact
- Solution should be proactive: Education for kids
- Time and effort aren't budgeted for interagency collaboration
- *How could interagency collaboration help?*

*Interviewee: Ken Duncan*

*Title: Environmental Compliance Manager*

*Agency: United States Army Corps of Engineers*

*Contact Info: (541)-937-2131 ext 137*

*Interviewer: Jenny Laxton*

*Date/time: Thursday, January 29, 2004, 4:00 PM*

Overview:

Ken Duncan works for the United States Army Corps of Engineers in their Lowell office as the environmental compliance manager. He focuses specifically on hazardous wastes found in illegal dump sites. Unlike the USACE rangers in his office, he is not out in the field looking for wastes, but is instead called out when a ranger discovers that a hazardous material dumping has occurred.

The hazardous materials Duncan deals with in the vicinity of Lowell consist of anything from spilled oil to methamphetamine lab wastes. Rangers discover roughly one to two hazardous waste dump sites on USACE land around the reservoirs of Fall Creek, Dexter and Lookout Point each year. Cleaning up these wastes can cost anything from \$200 to \$15,000.

Duncan related three examples of hazardous waste dumping in the project area during the last three years:

- On March 27, 2001, a paint spill was discovered on the north side of Lookout Point Reservoir about nine miles from the dam. The dumper was most likely a contractor. About 101 gallon containers of paint, along with paint spray equipment, were found thrown out next to the side of the road toward the reservoir. Some of the containers were still full, and the paint spilled almost to the reservoir's waterline. The USACE hired Foss Environmental to do the cleanup for this site. The process took a few days with a large working crew. In the end the USACE spent \$10,000 on the contract crew and fees at the dump, with about \$5,000 more for employee hours spent on the cleanup.
- During the spring of 2003 at Fall Creek Reservoir, a truck's transmission broke and spilled about one gallon of oil. Accidental oil spills from vehicles are typical, and cost approximately \$200 to clean up. The USACE rangers clean up these sorts of wastes on their own, without the help of a contract crew.
- In the fall of 2002, a methamphetamine lab dump site was found under a bridge at Fall Creek Reservoir. This particular site ended up being on Lane County land



## 8.5.2 U.S. Army Corps of Engineers Interview Reports

and not USACE land. However, it is representative of the sorts of methamphetamine lab wastes that the USACE finds on their lands. Cleanup crews are hired to clean these wastes.

All and all, Duncan believes that the USACE's problem with the dumping of hazardous wastes in the Lowell area is not as bad as it is in other areas of their jurisdiction. The majority of hazardous wastes are small oil spills or pesticide containers found with household trash. However, it is still unpleasant to deal with and costly. Although the problem is infrequent, it debilitates the USACE and depletes funds from their regular operating budget.

### Key Points:

#### Dump sites

- Types of hazardous waste dumped:
  - Oil
  - Meth. lab wastes
    - Boxes
    - Glass bottles/canning supplies
    - flammable liquids
    - extra garbage
  - paint
  - pesticide containers
- The frequency of hazardous wastes found in project area:
  - Once or twice a year

#### Cleanup

- Who cleans up hazardous wastes:
  - USACE personnel- both large and small wastes
  - Contract crews- large scale/dangerous wastes
- Where the money for cleanup comes from:
  - USACE general operating budget
- The amount spent on cleaning sites:
  - Small oil spills- \$200
  - Large paint spill- \$10,000 for contract crew and fees at dump  
\$5,000 for time spent by employees
- Attempt to restore area to pristine condition
  - Yes, as much as possible

#### Enforcement

- Enforcement of hazardous wastes fines:
  - Methamphetamine lab wastes, large scale dumping
    - Turned over to the sheriff's department
  - Small scale oil dumping
    - No fines imposed if responsible party not easily found

## 8.5.2 U.S. Army Corps of Engineers Interview Reports

### Further Insight

- *How much money does the USACE spend on fees at the dump for hazardous wastes?*
- *How much of the money they spent on the paint spill was for the contract crew and how much was for fees at the dump?*

*Interviewee: Dick Lamster*

*Title: Park Ranger, Park Manager,  
Chief of Natural Resource Management Section*

*Years at Job: 28 years (Retired January 2002)*

*Agency: United States Army Corps of Engineers*

*Contact Info: (541)-343-8664 (Home Number)*

*Interviewer: Beth Webb*

*Date/Time: Monday, January 26, 2004 8:00 AM*

### Overview:

Dick Lamster is a retired park ranger, park manager, and chief of the Natural Resource Management Section of the United States Army Corps of Engineers. He worked for the Corps for 28 years. As a park ranger and park manager, Lamster was out in the field every day. In the early 80's he became Chief of the Natural Resource Management Section. Roughly 50 park rangers, park managers, and biologists reported field observations to him daily.

Lamster says dumping is seasonal, as far as quality and quantity are concerned. There is less dumping in the dead of winter and more in the summer. On average, he or his personnel would find a new site weekly. "Everything under the sun, everything possible," was found during his time at the Corps. He classifies dumping under two categories: hazardous and unsightly. Things like methamphetamine labs and pesticides are considered hazardous and usually receive the highest priority during cleanup. Other items, like newspapers, diapers, human waste, and animal carcasses, are unsightly and difficult to clean up. Lamster attributes the common presence of tires to the cost per unit at the dump. Tires can also harbor stagnant water, a health concern in regards to the recent spread of West Nile Virus. Yard debris was not a problem when Mr. Lamster worked for the Corps, and if found, it would not receive priority because it is biodegradable.

Lamster suspects "people have been dumping things wherever it has been convenient since the start of humankind. Even so-called civilized society would dump their sewage outside the window into the street, and hope the water would wash it away." In modern society, he thinks people dump for many reasons. He noticed an increase in illegal dumping when Lane and other counties on the West coast began charging people to go to the dump in 1975. "We pay taxes for certain benefits that we all can't provide as individuals: police, fire, and we all create garbage. That is something that we all have in common, so the government should take care of that." As soon as tipping fees were

## 8.5.2 U.S. Army Corps of Engineers Interview Reports

implemented, Lamster noticed the dumping problem go from minor to major overnight. Dumping became a financial burden, instead of a social responsibility. People no longer wanted to drive as far to pay for dumping: they could just dump it for free on public lands when no one was watching. They figured the federal and state governments hired managers and rangers to help pick it up. Fewer people wanted to deal with legally dumping, especially when they had other things like ‘children crying and dogs barking.’ Lamster notes that some dumping is illegal to begin with, such as methamphetamine labs.

Highly visible locations off a busy road tend to have less dumping, although some still occurs. “These people are bold, and most criminals aren’t very smart anyway.” Dead end roads and other hidden spots will most likely become a dump site at some point. The Corps’ parks and recreation area trashcans sometimes become target dump sites for household garbage. Mr. Lamster reasons most people probably think they are not doing any harm by putting their waste into garbage cans. This is an issue for the Corps because trash cans often overflow with garbage and hide the receptacle. It is against federal law to dispose of non-recreational garbage in Corps trashcans.

Cleanup of dump sites differs depending on composition. Cleanup is sometimes as simple as picking up a sack lunch. Some sites, like methamphetamine labs, can take as many as 30 hours of an individual’s time. In these instances, a contractor must be hired and someone is posted at the entrance to keep children out. Usually the Corps manages its own cleanups. The Corps is not qualified to handle certain dump sites (e.g. methamphetamine labs and a large paint spill that occurred a couple years ago), so contractors are hired. Trash cleanup is not a specific budget item, but money is not lacking for equipment.

When Mr. Lamster started working for the Corps, information on illegal dumping was insufficient. Since then, the staff has become much more knowledgeable on the issue. They are now outfitted with sharps containers and understand the health issues surrounding some of the items dumped. Mr. Lamster notes how important it is to clean areas immediately, because people are more likely to dump on existing dump sites. When Mr. Lamster started at the Corps, they had mediocre success with cleanups surrounding creeks, other waterways, and sometimes campgrounds. Watershed councils handle the volunteer cleanup days now. Cleanup is more than meets the eye, according to Mr. Lamster, as some items, e.g., needles and broken glass, are dangerous. Cleanup events run by the Corps were usually on a small scale. Children received some education and were given things to show their parents. The Corps had greater success working with groups like the Bass Club and off-road vehicles clubs, who could remove larger items. The boy scouts were also active participants in cleanup days.

Over the years, federal laws have gotten much stronger and now allow the Corps to give out citations for various infractions, like bringing household garbage into parks. The strongest state law prohibits dumping near a waterway, and is nearly double other fines. This is the Corps’ best mechanism for issuing citations. Other methods of enforcing laws include finding return addresses and having the state police track down the perpetrators. Although an address is not enough to condemn someone, it is a good

## 8.5.2 U.S. Army Corps of Engineers Interview Reports

start. State police have more power because they can arrest and imprison illegal dumpers. Their fines are also double those the Corps can issue. The only phone numbers available for people to report illegal dumping are the office line, which is difficult to find, and 911. The problem is that people are unsure what land they are on, and Lamster thinks that they are not concerned about those details. Local residents call because they are familiar with the office and the personnel.

Lamster has several theories on what should be done to prevent illegal dumping. One is that “physically making it tough is better than signs.” Criminals will disregard signs, so it is better to put up gates, fences, rocks, ditches, even a row of trees. Signs are better for younger populations. Mr. Lamster also emphasizes a need for an educational campaign directed at children. 50 years ago, the campaign “Keep America Beautiful” began. Unfortunately, we still have some litter, “but we might have more,” Lamster notes. Education needs to be geared at children because adults already know dumping is wrong. Seatbelt education worked for kids, who then began telling their parents to put on seatbelts. Parents will generally comply because “they don’t want to argue.” It would be beneficial to teach children the harmful effects of dumping.

Lamster also believes that dumping will decrease if fees at the dump are eliminated and dump sites are kept as clean as possible. He also suggests a non-emergency central command phone line that people could call to report illegal dumping. “The sooner you know about it, the hotter the trail.” In addition, he suggested more publicity, perhaps in the form of a nightly news broadcast that could teach adults the illegal dumping health risks and costs to taxpayers. He thinks it necessary to have heavy fines and aggressive prosecution and enforcement. An Adopt-a-Road program might also discourage people from dumping when they see others cleaning it up.

Lamster also sees the need for inter-agency communication. It would then be possible to see if one-time dump sites are actually occurring multiple times on other properties. He suggests that on a regular basis, representatives from various agencies update a web page with dump sites on their property and how often they occur. Some informal agency interaction currently exists. The most effective Corps prevention method seems to be physically blocking access to dump sites. People might dump in front of the barrier for some time, but eventually they get nervous about getting caught. Increased enforcement usually helps prevent dumping on recreation areas. One of the most effective prevention techniques is the removal of trashcans, which often eliminates future dump incidents. Lamster believes that more people will actually start dumping when trashcans or dumpsters are put in. Normally, this trash would be in landfills, but public trashcans are an easy and cost-free way for people to dispose of their garbage. The Corps must pay for the disposal and upkeep of trash, while also preventing vandalism.

Lamster notices that illegal dumping occurs in spurts. This sometimes has to do with fee increases, and sometimes families relocating, especially if one family does most of the dumping in an area. He also notes that some landowners feel that they lack the money and time to take things to the dump, so they construct their own pits to dump toxics like fertilizers, pesticides and oil. He says that the “solution to pollution is

## 8.5.2 U.S. Army Corps of Engineers Interview Reports

dilution,” and the Earth can filter a lot of things. However, things accumulate, and “the Earth can’t do a good job forever.”

### Key Points:

#### Dump sites

- Seasonal
- “Everything under the sun”
- Two types: Hazardous and Unsightly
- Occurred more when dump required payment
- Less visible from road = more garbage
- Occur in spurts
- *Research dump fees history*

#### Cleanup

- Variable: from sack lunch to meth lab
- Some contracting for large-scale sites
- Equipment not lacking
- Local groups good for cleanup
- *Why were cleanups mediocre in response?*

#### Enforcement

- Some laws (Federal and State)
- State police have more power
- Difficult for people to report
- *Research state waterway law*
- *Research household garbage in public trashcan law*

#### Prevention

- Physically tough is better than signs
- Removal of trashcans

#### Further Insight

- People have been dumping things all of history
- People don’t think they are doing any harm
- Need:
  - Youth Education
  - Elimination of dump fees
  - Hotline
  - Publicity
  - Aggressive enforcement
  - Adopt a Road
- The Earth can’t do a good job forever

## 8.5.2 U.S. Army Corps of Engineers Interview Reports

*Interviewee: Peggy Marcus*

*Title: Park Ranger*

*Years at Job: About 7 years (since March 1997)*

*Agency: United States Army Corps of Engineers*

*Contact Info: (541)-937-2131 ext 143*

*Interviewer: Beth Webb*

*Date/Time: Tuesday, January 27, 2004 9:30 AM*

### Overview:

Peggy Marcus is a Park Ranger for the United States Army Corps of Engineers. Her duties involve patrolling Corps land for resource protection. She is out in the field nearly every day, surveying lands around Lookout Point Reservoir. A new dump site is found weekly. Litter is a daily problem. She comes across household and construction dumping. More recently, there has been a problem with what she terms “farm dumping,” which includes the disposal of vegetation and garbage mixed together. “Living garbage,” or trash produced by someone living out of his or her vehicles, including clothes and other personal waste, is also prevalent. Household garbage is illegally deposited in the trashcans in recreational park areas. Marcus speculates these items are dumped because it is too expensive to pay for legal disposal, and most people do not recognize illegal dumping as a problem. Methamphetamine labs have been a significant problem in the past, and are still occasionally found. Marcus has only seen one since working at the Corps. The disposal of needles has also decreased. Most Corps’ land is rural, so dump sites are typically tucked away, but still easily accessible. Marcus thinks dumping decreases during the off-season since there are fewer people recreating.

The amount of time spent on cleanup is highly variable. Marcus picks up litter on patrol daily. Dump sites are rarely a one-person task. She spends about 3 hours a month cleaning up dump sites, as do four or five other people. She estimates it takes one person 1-3 hours to clean one dump site. A couple times a year, the entire ranger staff (4 people) gets together for a large-scale cleanup. They do not have any volunteer cleanup days. It is not a very good “bang for your buck” setup, because illegal dumping is spread out and variable in composition.

The Corps hires a janitorial service for general cleanup during the summers. Marcus is generally satisfied with current access of equipment and personnel. However, she feels they lack consistency in how often they clean dump sites. She thinks the Corps really needs motivation, spurred local interest, and some energy. “Someone has to take an interest.” There is no specific budget for cleanup, just a byline under recreational operations for trash removal. Most of the money comes from other budget items. Marcus feels that “it takes garbage to make garbage.” Every piece of trash, no matter how small, must be picked up, otherwise more and more will accumulate. Yard debris is not necessarily a priority. “Yard debris doesn’t necessarily breed garbage,” unlike other types of waste.

## 8.5.2 U.S. Army Corps of Engineers Interview Reports

There are several federal fines the Corps can give for illegal dumping. Some are: Improper disposal of commercial or domestic waste (\$350), Disposal of waste generated on project (\$75), and Litter for camp or picnic site (\$50). However, the Corps only issues 1-2 citations a year. Marcus says this is not a route that is taken very often. There is not much support from above to issue out federal tickets for something like illegal dumping. If people wish to report illegal dumping, they must call the office line. Generally, people call for large-scale dumps, such as the big paint spill that occurred a couple years ago. When these types of dumps arise, the state police are generally called to track down perpetrators.

The Corps will increase patrol or erect permanent barriers, in the form of rocks, gates and cable, to prevent dumping. The Corps often removes trashcans that are frequently dumped with household garbage. When illegal dumping is less severe, the Corps will find addresses in the garbage and contact the possible dumpers. This strategy has generally been successful because, “they’re scared that they are caught.” The Corps is currently worried that their vault toilets, which are extremely costly and difficult to clean, will become dump sites. Some dump sites are continually used, despite attempts to keep people out. One site on Hwy 58 has cable that is repeatedly cut. It becomes too costly to keep replacing cable that is stolen. In this case, Marcus thinks a gate would be much more effective.

Personally, Marcus feels that people are ignorant to the impact of illegal dumping. It is too expensive to take it to the transfer station. In order to stop the problem of illegal dumping, she suggests community education, and lowering tipping fees at transfer stations. The legal disposal of large appliances should also be less expensive.

### Key Points:

#### Dump sites

- New dump sites weekly
- Two types of garbage: household and construction
- Occurrence of meth labs and needles have decreased
- Dump sites are tucked away and easily accessible
- More dumping in summer
- *Have we surveyed the site with cut cable?*

#### Cleanup

- Highly variable
- About 3 hrs/month (individual)
- 4-5 people monthly
- A couple large-scale cleanups a year
- No volunteer days
- Equipment/Personnel good
- Need motivation/interest
- “It takes garbage to make garbage”
- *Have people started dumping in vault toilets?*

## 8.5.2 U.S. Army Corps of Engineers Interview Reports

### Enforcement

- Several fines, but lack of support to issue
- Generally few calls about dumping
- *Research fines*

### Prevention

- Increase patrol
- Erect permanent barricades
- Sometimes removal of trashcans

### Further Insight

- People don't know better
- Too expensive
- Need community education
- Dumping fees should be lower



8.4 Partner Agency Summaries  
8.5.3 U.S. Forest Service

8.5.3 United States Forest Service

*Interviewee: Gary Burcal*

*Title: Law Enforcement Officer*

*Years at Job: 18 years with the USFS, 16 at the Willamette National Forest*

*Agency: United States Department of Agriculture Forest Service*

*Contact Info: 541-782-5231*

*Interviewer: Chant Eicke*

*Date/Time: Tuesday, February 24, 2004, 2:00 PM*

Overview:

Gary Burcal has been a law enforcement officer at the United State Forest Service Willamette National Forest since 1987. He previously worked for 2 years at the Okanogan National Forest. Illegal dumping has proven to be a persistent problem. As part of his law enforcement duties, Burcal works to discover and document both new and established dump sites. In the past few years, he has focused his efforts on the discovery and removal of abandoned vehicles.

Burcal estimates that he discovers an average of one new dump site each week in the southern Willamette National Forest. These dump sites fit into one of five general categories, which he ranks in severity from least to most severe. The first, and least severe category, is 'typical litter,' which is garbage that is disposed through day use activities, or thrown from car windows. The second category is 'household garbage' such as papers, food scraps, packing material, or other items or bags of typical residential trash. The third category is 'household cleaning or moving trash,' and includes small appliances, clothes, lumber, or other household items. The fourth category is 'large appliances and furniture'. The fifth and most severe category of illegal trash dumping is 'abandoned vehicles,' and includes cars, trucks, trailers, and campers.

The locations of illegal dumps are widely scattered, but typically increase in frequency near residential areas. Sites are often located in what Burcal terms "areas of opportunity," where dump site access is simple from main roads, and large vehicles can easily maneuver. Stolen and abandoned vehicles are the most frequently dumped large item, and are found far from residential areas, deep in Forest Service land. Around 5 or 6 vehicles are discovered annually in the southern end of the Willamette National Forest.

Gary Burcal lists four main parts to USDA Forest Service cleanup efforts:

- Law enforcement is the first part of cleanup. Law Enforcement Officer Burcal locates, photographs, and marks the positions of dump sites on a map, then delivers the map to Ernie Ledbetter, the coordinator of cleanup efforts. Burcal personally focuses on the investigation and removal of abandoned vehicles. He attempts to discover the last known owner by tracking the Vehicle Identification

### 8.5.3 U.S. Forest Service Interview Reports

Number. It is often difficult to discover the perpetrator because the vehicle is stolen or has passed from hand to hand without proper title licensing. Only 10 to 30% of his investigations are successful. When successful, Burcal requires the perpetrator to remove his or her vehicle. If unsuccessful, Forest Service personnel, or Norm Maxwell of the BLM, remove the vehicle. Sometimes, a local, retired, tow-truck operator is hired to remove the abandoned vehicle. In 2002, 29 vehicles were removed from Forest Service lands. In 2003, 15 vehicles were removed. Burcal estimates that about 5% of his full-time job is spent working on illegal trash issues, with most of that time spent on investigations.

- The second part of USDA Forest Service cleanup efforts is through Forest Service cleanup personnel. Ernie Ledbetter is in charge of coordinating cleanup efforts, with funding help from David Murdough.
- The third part is an interagency agreement with the BLM. Through the interagency agreement, the Forest Service pays the salary of BLM Ranger Norm Maxwell to remove difficult illegal dumps. Maxwell has access to valuable and high-powered winch equipment. He also has the authority to streamline the processing of abandoned vehicles. (Abandoned vehicles cannot be taken directly to a scrap yard without possession of a title. They must be impounded, even if they are burned and completely worthless. Norm Maxwell has the authority to deliver these vehicles directly to the scrap yard without a title.)
- The fourth and final part of USDA Forest Service cleanup efforts includes the labor of the Lane County Forest Work Crew and the Northwest Youth Corps, coordinated by Ernie Ledbetter.

Enforcement procedures in the USDA Forest Service, including issuing citations and mandated court appearances, follow the Codes of Federal Regulation (CFRs). Gary Burcal notes that several CFRs concern illegal trash. Code 261.11.B pertains to basic littering, a \$100 fine that is generally given to campers who leave a mess. Code 261.11.C pertains to placing polluting substances in or near water, a \$200 fine. Code 261.11.D pertains to failure to properly dispose of garbage/trash, a \$200 fine. Code 261.11.E pertains to the dumping of trash from private land, a \$300 fine of that is seldom used because the perpetrators are difficult to track down. Finally, Code 261.10.E pertains to abandoning property, a \$100 fine that is typically used for abandonment of vehicles. Violation of these CFRs is a class B misdemeanor that is usually handled through simple citation with an option to appear before a federal court. However, if the crime is severe or persistent, the officer can demand mandatory court appearance, whereupon the court may assess a penalty of up to \$5000 or 6 months in prison. This level of enforcement is seldom, if ever, used.

Gary Burcal states that the forest service uses no significant forms of prevention. In the past, Forest Service personnel posted signs along the Oregon Coast, on USDA Forest Service land, in an effort to mitigate illegal dumping, but this resulted in little to no measurable effect. General campground regulation signs and day-use area signs that mention littering are posted. There are no posted signs that specifically target illegal

### 8.5.3 U.S. Forest Service Interview Reports

dumping activities in the southern part of the Willamette National Forest. Burcal is not familiar with any educational events, but he notes that when an investigation is successful, he does call up helpful citizens, who have provided information about abandoned car ownership or other dumping connections, to thank them. This lets people know that their cooperation contributed to solving the problem.

Gary Burcal ultimately notes that because citizens sometimes call local FS offices to thank the personnel for dealing with local trash issues, he feels that the efforts of the USDA Forest Service are recognized and appreciated by the community.

#### Key Points:

##### Dump sites

- Five major categories regularly encountered.
  1. Typical roadside littering.
  2. Household trash.
  3. Household cleaning/moving out trash.
  4. Residential appliances and furniture.
  5. Vehicles including cars, trucks, trailers, and campers.
- Site locations widely scattered.
  - Typical dumps are generally in areas of opportunity.
    - Easy access from main roads.
    - Wide, maneuverable areas.
    - Close to towns.
  - Sites located far up in the hills, away from residential areas, are usually stolen cars.
    - Typically 5 or 6 abandoned vehicles are located annually in the southern end of the Willamette National Forest.
- An average of 1 new dump site each week is found in the southern end of the Willamette National Forest.

##### Cleanup

- Four parts to the USDA Forest Service cleanup effort.
- 1. Law enforcement.
  - Law Enforcement Officer Burcal locates and reports dump sites, but does not participate in physical cleanup efforts.
    - When a site is found, it is photographed and the location is marked on a map, and given to Ernie Ledbetter, the cleanup effort coordinator.
    - Burcal emphasizes investigation and removal of abandoned vehicles.
      - Burcal attempts to discover the last owner through the V.I.N. number, tracking the vehicle from owner to owner.
      - Vehicle investigations are 10% to 30% successful.
      - Sometimes a local, retired, tow-truck driver is hired to remove particularly difficult vehicles.

### 8.5.3 U.S. Forest Service Interview Reports

- 29 vehicles removed in 2002.
- 14 vehicles removed in 2001.
- About 5% of Burcal's full-time job is spent on illegal trash issues.
  - Mostly investigation.
- 1. USDA Forest Service cleanup personnel.
  - Ernie Ledbetter.
  - Dave Murdough.
- 2. Interagency agreement with BLM.
  - Special funding is set aside to pay the salary to Norm Maxwell of the BLM, when he helps. Maxwell has the proper equipment and authority to handle difficult dumps such as burned out vehicles.
  - High powered winch.
  - Authority to scrap old vehicles without titles.
- 3. Work Crews
  - Lane County Forest Work Crew.
  - Northwest Youth Corps.

#### Enforcement

- USDA Forest Service uses the Codes of Federal Regulation (CFRs) for enforcement procedures and citations. Several CFRs pertain to illegal trash.
  - Code 261.11.B – Basic Littering
    - Citation fine of \$100 used generally for campers who do not cleanup their camp area.
  - Code 261.11.C – Placing a polluting substance in or near water.
    - Citation fine of \$200.
  - Code 261.11.D – Failure to properly dispose garbage/trash.
    - Citation fine of \$200.
  - Code 261.11.E – Dumping.
    - Citation fine of \$300 for bringing trash from private land and dumping it on USFS land.
    - Almost never used because the perpetrators are seldom discovered.
  - Code 261.10.E – Abandoning property.
    - Citation fine of \$100 typically used for abandoned vehicles.
- CFRs pertain to class B misdemeanors.
  - Typically handled through simple citation with option to appear before a federal court.
  - If the crime is severe or persistent, mandatory court appearance can be demanded, whereupon the court may assess a penalty of up to \$5000 or 6 months in prison. This level of enforcement is seldom, if ever, used.

#### Prevention

- Signs with general campground rules are posted in campgrounds and near some hiking trails, but no signs have been posted in effort to specifically mitigate illegal dumping.
- No educational events are held.

### 8.5.3 U.S. Forest Service Interview Reports

#### Further Insight

- The public notices cleanup efforts, sometimes calling in to local offices to thank them for cleaning the public areas.

*Interviewee: Larry Lassiter*

*Title: Developed Site Manager, Lowell Area*

*Agency: United States Forest Service*

*Contact Info: (541) 937-2129*

*Interviewer: Beth Webb*

*Date/Time: Wednesday, February 25, 2004, 8:00 AM*

#### Overview:

Larry Lassiter is the Developed Site Manager for the Lowell Area, in the US Forest Service Middle Fork Ranger District. His duties include management of dispersed and developed site camping and trail work. Six people in his department, as well as people from hydrology and fire management, work on the problem of illegal dumping. Lassiter spends fifty to sixty percent of his time in the field during the winter, and nearly seventy-five percent of his time during the summer. It is normal to come across one or two new dump sites weekly.

The sites that give the Forest Service the most problems are dispersed sites. These are recreational areas (day-use or over-night) that do not have hosts or frequent patrols. Lassiter finds household items, propane cylinders, and large appliances (stoves, refrigerators, water heaters) to be the most problematic. He comments that the local population uses side roads to dump things as well. Methamphetamine labs used to be more common, but have become less common in recent years. Lassiter notes that this may be because people are dumping these wastes further and further into the woods to make sure they remain hidden. Propane cylinders are also a big problem. A propane cylinder law changed two years ago, and now prohibits people from refilling older, 20-gallon cylinders. Last year, the Forest Service saw a peak in the number of illegally dumped propane cylinders, although the amount has recently been decreasing. Tires are also problematic. Lassiter assumes this has to do with the cost of dumping tires legally. Sometimes illegally dumped vehicles, usually stolen or abandoned, are found. Animal carcasses are frequently found, although not always during hunting season, and may be caused by illegal poaching. Domestic pets and livestock carcasses are sometimes found as well.

Lassiter thinks it is improbable that all dump sites are accounted for because Forest Service land contains many roads. However, if fresh tracks are found in an area that typically does not see much traffic, the Forest Service will investigate. Dump sites are often found off spur roads, usually less than a quarter of a mile from the main road. Dumpers typically dump off a bank or a side road where other people will not see them. Lassiter estimates there are about 60 established dump sites in the area of study. More

### 8.5.3 U.S. Forest Service Interview Reports

illegal trash is found in the spring and summer months, but Lassiter does not notice a change in the types of garbage found during different seasons.

Lassiter does not personally clean dump sites. The two resources utilized for cleanup are inmate and juvenile crews and a person hired during the summer months. Cleanup typically involves removing anything that is non-natural to the area, and can even include breaking up fire rings. The inmate and juvenile crews work through Lane County under a PECO agreement. PECO is money provided by the Federal government to offset the timber tax money that the Forest Service used to receive. This money is used by the Forest Service to buy new toilets, brush out roads, and other projects to benefit the public. Work crews of ten are out everyday, but they have other duties besides collecting garbage. Lassiter estimates that crews clean dump sites twenty percent of the time and clean 10 sites a month. It normally takes between one and two hours for a crew to clean a dump site. Usually crews are in the field all day cleaning several different dump sites. The Forest Service has been using the work crews for three years, but their contract is up for renewal in 2006. The Bureau of Land Management also utilizes the work crews, possibly because they have a larger problem with illegal dumping. The Forest Service also hires a person to clean dump sites during the summer. Fifty percent of this person's job involves dump site cleanup, and 20 sites are cleaned per month. This person's salary is \$5,000 dollars for the whole summer.

Lassiter emphasizes that they are losing personnel due to budget constraints, so it is becoming more and more difficult to keep illegal dumping under control. PECO has been a great help, providing work crews and also paying for tipping fees to dispose of garbage. Lassiter disposes illegal waste usually once a week, and has a personal card he uses when he goes to the transfer station. This costs \$20-30 per trip. The Forest Service also has waste management dumpsters, and owns cleanup equipment like hand pickers and gloves. Lassiter would like to see more protective equipment that can be used for cleaning up sharps or other dangerous wastes.

The Forest Service has fines for illegal dumping that can reach up to \$500. Lassiter does not personally issue citations, but he estimates their office issues five or six a month. If the public wants to report illegal dumping, they can call the district office. They usually receive one or two calls per month. The office takes down the reporter's name and number, and then investigates the site at a convenient time. Hazardous or other dangerous sites receive a higher priority.

The Forest Service blocks roads to prevent dumping in problematic areas. The Forest Service uses a backhoe to move rocks, or digs a trench to make the area inaccessible to vehicles. However, this technique cannot be used on roads that are active transportation routes. The material, equipment and salary needed to erect a barrier costs \$400. Lassiter emphasizes that blocking an area will not prevent most people from dumping, because they will likely go to another area to dispose of their waste. Sometimes signs and increased patrolling are used as deterrents. Lassiter believes patrolling is effective, but is often an unavailable prevention resource because budget cuts have limited the number of people available in the office who can patrol. Lassiter feels they are unable to implement certain things like more barriers and more patrols,

### 8.5.3 U.S. Forest Service Interview Reports

because the cost is too expensive. With a higher budget, this issue would be higher on the priority list, and it would be easier to plan out a process for dealing with illegal dumping. Also, there is not a specific person responsible for this issue because the task is added on to other duties.

The Forest Service has had some cleanup days. The most recent event took place last year at Waldo Lake. Generally they have local cleanups at Fern Creek and Hills Creek. Lassiter notes that volunteer participation is typically poor. He surmises that people are busy and that there is a lack of publicity. He believes radio spots and articles in local newspapers would raise awareness of the illegal dumping issue, and increase the number of people who attend cleanups.

Illegal dumping is a way for “a small percent of the population to deal with their waste.” Lassiter attributes illegal dumping to economics and convenience issues. He surmises that people dump because “they have something they want to get rid of, and they don’t want to pay.” He feels that illegal dumping shows disrespect for the environment. People think that dumped items will “grow over and be fine.” They don’t understand the possible ramifications of dumping something that may do harm to the land. Lassiter feels that this problem can be solved by developing a staff position within the Forest Service that would specifically handle the issue of illegal dumping on Forest Service lands. He also suggests a proactive solution that includes publicity on the issue and school presentations (“get them when they’re young,” Lassiter notes).

#### Dump sites

- 1-2 new dump sites weekly
- Dispersed sites most problematic
- Biggest problem items:
  - Household items
  - Propane cylinders
    - Unable to refill 20-gallon cylinders
  - Large appliances
  - Tires
  - Vehicles
  - Carcasses
  - Methamphetamine labs less frequent
  - Off spur roads, usually within quarter mile of entrance
  - Estimated 60 established sites in area
  - More trash found in spring and summer

#### Cleanup

- Inmate and juvenile crews
  - Work under PECO agreement with Lane County
    - Have been working with FS for 3 years
    - Contract up for renewal in 2006
    - *What is PECO exactly?*
  - 10 people/crew

### 8.5.3 U.S. Forest Service Interview Reports

- 20% of job is cleaning dump sites, out daily
- Clean 10 sites/month
- 1-2 hours to clean 1 dump site
- Summer employee
  - 50% of job
  - Clean 20 sites/month
  - Salary is \$5,000 for summer
- Budget constraints
  - Losing personnel
  - PECO is helpful
    - Provides money for work crews and tipping fees
    - Offsets timber tax money
- Lassiter spends \$20-30/week on tipping fees
- Need more protective equipment
  - *What kind of equipment is available now?*

#### Enforcement

- 6 people in office work on problem (as well as people from other departments)
- Fines up to \$500
- Issues 5-6 citations/month
- Receives 1-2 calls reporting illegal dumping/month

#### Prevention

- Physically block roads
  - Rocks or trenches
  - Costs \$400 per barrier
  - People will dump in another area
- *What technique could be used for main transportation routes?*
- Some cleanup days
  - Showing is typically poor
    - People are busy
    - Lack of publicity
  - *How many cleanup days do they have?*

#### Further Insight

- Recommends having a person who is solely in charge of issue
- Illegal dumping is an economic and convenience issue
- People who dump are disrespectful of environment
- Illegal dumping is a way for a small percent of the population to deal with their waste
- Solution should be proactive

*Interviewee: Ernie Ledbetter*

*Title: Hydrology Technician*

*Years at Job: 15 years*

*Agency: United States Forest Service*



### 8.5.3 U.S. Forest Service Interview Reports

*Contact Info: (541)-782-5241*

*Interviewer: Stephanie Erickson*

*Date/Time: Wednesday, February 25, 2004, 8:00 AM*

#### Overview:

Ernie Ledbetter works in the city of Oakridge, Oregon as a United States Forest Service Hydrology Technician. Ledbetter is in charge of coordinating the clean up of illegal dump sites on USFS land.

Many types of items are dumped in USFS land in the Oakridge area. "You name it, I think it's been there," Ledbetter commented. Ledbetter regularly encounters roadside litter (e.g., fast food containers and aluminum cans), dirty diapers, animal carcasses, and yard debris, and occasionally comes across illegally dumped washing machines, chest-type freezers and refrigerators. Three or four vehicles (that are usually set on fire or have already been burned) are dumped each year. Hazardous waste dumps are rare (Ledbetter has only come across two chemical dump sites in the past five years), but approximately ten percent of discovered dump sites have some kind of hazardous material (e.g., needles found in household garbage dumps). Illegal dump sites can be found "just about any place," Ledbetter stated. He considers areas with three or four aluminum cans and a paper bag to be dump sites. Cleanup crews come across four or five new dump sites each day during the summer. Several new dump sites are found each week on a yearly average. Dumping often occurs on weekends, and Ledbetter believes that if people know they are going to dump, they will tend to dump at night, rather than in the daytime. On a whole, illegal dumping tends to occur during the spring and summer when many people are cleaning out garages and yards. A large number of animal carcasses are dumped during hunting season. Locations accessible by vehicle where someone can easily "backup to a steep drop and unload stuff" harbor many illegal dumps. Several USFS roads in the Oakridge area are situated near waste transfer stations. These locations tend to contain a larger number of dump sites. Ledbetter guesses that people first take their waste to the dump site, but are unable to pay tipping fees and ultimately illegally dispose of their waste. Dump fees are high for people on fixed budgets in the economically depressed cities of Lowell and Oakridge. Ledbetter also thinks some people are "being belligerent saying, 'I'm just going to go throw this out in the woods,'" instead of taking it to the dump. Local residents are the primary illegal dumping perpetrators (90% of dumps are household and residential), but commercial dump sites (like deposited paint cans) are encountered. The illegal dumping problem has not significantly changed during the past 15 years that Ledbetter has been a USFS employee, but staff members are "being more proactive" in looking for and cleaning up dump sites.

Dump site cleanup time varies depending upon the amount and size of dumped items, and the cleanup equipment required. Most dump sites can be cleaned in less than two hours. Labor-intensive sites (e.g., illegal dumps with many small, spread out, and difficult to pick up items, like shingles) require extra cleanup time. Items that have been deposited down steep cliffs (sometimes near waterways) also require longer cleanup

### 8.5.3 U.S. Forest Service Interview Reports

time. Equipment used for cleanup includes pitchforks, shovels, gloves, hand-held litter pickers, garbage bags, and a winch recently installed on a truck for large and heavy dumps. Ledbetter estimates the equipment costs an average of \$500 each year. The USFS owns all cleanup equipment and does not lack cleanup resources. Ledbetter does not currently spend time cleaning dump sites, but organizes a Youth Conservation Corps cleanup crew during the summer. Twelve local youths work for two YCC crews during the summer. Lowell and Oakridge each have one team of six youths. The hired teens spend summer working days looking for and cleaning up illegal dump sites. Ledbetter spends about 200 hours each summer organizing the YCC cleanup crews. Illegal dumping occurs more in the summer than in the winter and fall. On a yearly average, Ledbetter spends one day per week working to clean dump sites. Dump site cleanup is not specifically noted in Ledbetter's paid job description, but is simply part of what he has to do. The USFS usually cleans dump sites itself, but contracts out if needed. Local tow companies are contracted to remove illegally dumped vehicles. Hazardous materials teams are hired in the event of a hazardous waste dump. Several years ago hazardous waste crews had to clean up illegally deposited asbestos shingles. The cost to clean hazardous dump sites like methamphetamine labs starts at \$1000 and can cost even higher, depending upon the size of the dump. Time is budgeted to pay the two YCC crews and Ledbetter's salary to organize and work with crews. A separate budget is set aside for the removal of vehicles, other heavy and difficult to remove items, and hazardous wastes. Staff members try their best to restore illegal dump sites to pristine condition, but complete restoration is not always possible. Many dump sites are situated on a landing or gravel base that is already a disturbed area. If items are dumped over a bank, cleanup crews clean as much as they can, then let nature try to restore grass and vegetation. Many dump sites can never reach complete restoration because they are regularly dumped upon.

Ernie Ledbetter is unable to issue fines for illegal dumping. Signs discouraging illegal dumping are put up throughout USFS land, and contain the District Ranger station phone number for local citizens to call and report dumping. Only a couple of phone calls from illegal dump witnesses have been made in the past five years that Ledbetter has been in charge of cleanup. Most calls report habitual dump sites. After receiving the phone call, the sites are usually cleaned, and the informant is thanked for calling. While cleaning dump sites, staff members sometimes search through household bags of garbage for information leading to the identities of dumping perpetrators. Several years ago, during the cleanup of a household dump, staff members came across names of the individuals who illegally dumped. After being contacted, the suspects explained that they had given their son money to pay for their garbage to be legally disposed. Instead of taking the garbage to the dump, the son pocketed the tipping fee money and dumped the waste in the forest.

United States Forest Service staff members utilize several tools for the prevention of dumping. Signs warning citizens that the area is being monitored for illegal dumping are posted, but Ledbetter does not believe signs are effective. Locked gates prevent potential dumpers from accessing dump sites by vehicle, because nearly all dumped items are transported by vehicle. Gates can be difficult to install because a large amount of documentation and paper work is needed to close a road. Gate material and

### 8.5.3 U.S. Forest Service Interview Reports

installation costs between \$700-1000. The only way to really stop someone from dumping, Ledbetter noted, is to put a gate on every road. Public outcry would be horrendous because USFS forested areas are public lands. Putting someone on patrol every hour of every day would stop dumping, but would be nearly impossible to implement without a large amount of additional funding. Ledbetter explained cost to be the prominent limiting factor for prevention methods.

Educational and cleanup events help mitigate illegal dumping. The USFS participates in Clean River Days, an annual cleanup event that occurs in May or June on a Saturday. Fliers and an ad in the paper advertise the statewide event. Volunteers meet at a central location in the morning, and coordinators assign participants to different restoration projects. Volunteers can choose to clean what they desire, or clean a specifically assigned site. Types of cleanup tasks have included: painting over graffiti on bridges, removing a refrigerator from a river, and picking up garbage at recreational-use parking areas. Participants also walked along riverbeds and riparian areas and picked up any encountered litter. In 2003, 25-30 volunteers participated, which Ledbetter feels was an impressive turnout for the Oakridge area. Ledbetter does not believe the event helped the long-term illegal dumping problem, but it did help clean sites sooner and more thoroughly. The city of Oakridge sponsored the event with a local radio station partner. The participation cost for the USFS, Ledbetter estimated, was \$200 including dump fees.

More education and cleanup events would help mitigate the problem of illegal dumping. Education at an early age, in local schools, would be beneficial in the long run. Cleanup is often a high priority, but finding the funding to delegate cleanup crews and volunteers is difficult. Ledbetter thinks people would be more active about preventing dumping if they were forced to clean dump sites. Making legal waste disposal more affordable would also help mitigate illegal dumping. Oakridge holds an annual garbage amnesty day where local residents can set out appliances for the city to pick up, free of charge. Lowering or eliminating waste disposal costs would significantly prevent the bulk of illegal dumping.

#### Key Points:

##### Dump sites:

- More dumping on weekends and at night.
- Dumping is more prevalent during spring and summer months.
- People generally dump because they cannot afford tipping fees.
- 4-5 new dump sites are encountered everyday during the summer.

##### Cleanup:

- Cleanup time depends on amount and size of the illegal dump.
- 5 minutes-2 hours required for most illegal dumps, but cleanup can sometimes take longer.
- Ledbetter spends 200 hours in the summer organizing YCC cleanup crews.
- Dump site equipment is owned.

### 8.5.3 U.S. Forest Service Interview Reports

- Cleanup equipment costs about \$500 each year
- Hazardous waste clean up is costly.
  - The cleanup of methamphetamine labs costs \$1000 and higher.

#### Enforcement:

- Ledbetter cannot issue fines.
- Law Enforcement Officer Gary Burcal would have more information on citations.
- Phone calls reporting illegal dumping are rare.

#### Prevention:

- Material and installation of gates costs between \$700-1000.
- Gates are effective prevention measure, but are difficult to implement.
- Signs are not effective prevention techniques.
- Clean River Days is an annual education and cleanup event.
- Cost often deters staff members from implementing prevention measures.

#### Further Insight:

- Reduce or eliminate disposal costs at dump stations.
- Implement more education and cleanup events.
- Hold more amnesty days of free waste collection.

*Interviewee: David Murdough*

*Title: Watershed Program Lead*

*Years at Job: 20 years*

*Agency: U.S. Forest Service*

*Contact Info: (541)- 782-5208*

*Interviewer: Jenny Laxton*

*Date/Time: Tuesday, March 2, 2004, 2:00 PM*

#### Overview:

David Murdough is the Watershed Program Lead for the Middle Fork Ranger District of the Willamette National Forest. He has worked in the area for twenty years and focuses on administrative issues that include illegal dumping. He deals with budgeting, cooperation between the US Forest Service and other agencies that are also interested in illegal dumping, and coordinates community involvement in cleaning up sites and preventing illegal dumping.

Murdough and other soil and water conservation employees within the Middle Fork Ranger District have only taken on the problem of illegal trash dumping during the past five years. The issue had previously been managed entirely by employees who dealt with recreational issues. As an administrator, Murdough's goals for the next few years are to take care of the backlog of dumping sites that have accumulated through the years on

### 8.5.3 U.S. Forest Service Interview Reports

the Middle Fork Ranger District's lands. He has been actively searching for solutions to the illegal dumping problem and the funding to implement these solutions. He hopes the illegal dumping project will help determine what to do with the sites that are now being cleaned up, and help prevent future dumping on current dump sites.

The funding for the clean up of illegal dump sites comes from the top of the district's general budget and PECO funds. Until 2003, all dump site cleanup funding came from the top of the districts budget. This money is used for riparian restoration, YCC crews, and community cleanup days. Hydrology technicians are hired to complete riparian restoration one month per year. During this month they figure out where dump sites are along waterways, and clean the sites as much as possible. This has annually cost about \$3000. \$3000 more dollars are used per year for youth YCC crews who complete a two to four week clean up circuit of Middle Fork Ranger District lands. All together \$13,000 was taken from the Middle Fork districts budget to fund all of these projects in 2003. \$58,500 is being spent this year on these sorts of projects.

The money to clean dump sites has usually come from the Middle Fork district's regular operating budget, but Murdough has found other ways to fund cleanup efforts by utilizing PECO funding. PECO funding is money given to the county to do work on either federal or county lands, and offset timber revenue losses. The Middle Fork Ranger District has been using this money to fund the clean up of abandoned vehicles on their land, and hire local youth to clean litter on backlogged sites. The Forest Service used \$7,000 in PECO funds to clean up abandoned vehicles in 2003, and \$5,000 in 2004. The youth crews that will start work in 2004 are budgeted to cost \$48,000 in PECO funds. This includes paying the youth, the contract crews who will take care of larger items with machinery, and paying for charges that will be accrued at transfer stations. All and all, the highest cost of illegal dump site cleanups come from salaries, followed by contract crews, and then fees at transfer stations.

Murdough is also involved in coordinating interagency cooperation on the subject of illegal dumping. In the past few years he has helped set up interagency cooperation with the Bureau of Land Management for the disposal of abandoned vehicles on Forest Service lands. Before this agreement, the U.S. Forest Service ran into problems with disposing abandoned vehicles because they could not clear the titles to the vehicles. The Forest Service pays the BLM (through PECO funding) to clear abandoned vehicles on Forest Service lands and transport them to a recycler. The BLM has a specialist who can clear vehicle titles.

Community involvement in the clean up of illegal dumping is also very important for the Forest Service. The Forest Service has been involved in River Day at Oakridge for the past three years. This is a community clean up day that happens annually during the spring. The Forest Service helps find projects for the community to work on, and hauls collected trash on this day to transfer stations. The Forest Service has also been involved in other cleanup days. They tried to hold an event on public lands day, but because it was a national cleanup day (and thus, many competing cleanup organizations) finding an event to participate in was difficult, and volunteer turn out was ultimately very low. Murdough thinks that perhaps this cleanup event should be tried again in the summer

### 8.5.3 U.S. Forest Service Interview Reports

when their lands experience the highest amount of use. Murdough has also coordinated cleanup with community volunteers who want to help clean up trash. However, the amount of trash is often overwhelming, and volunteers quickly burn out.

Murdough finds that dumping occurs in spurts. There is an increased amount of trash dumped on public lands during the spring because people begin cleaning their yards and garages. This may explain why household trash and yard debris at dump sites are often found within close proximity. Murdough has noticed a higher incidence in dumping over the years because fees have increased at transfer stations. This happened around the year 2000 when transfer stations began to charge a higher fee for the recycling of large appliances. Murdough also noticed that the amount of trash being dumped radiates out from urban and housing centers with more dumping closer to these areas and less dumping further away. New dumping events happen regularly every two to four weeks.

The Forest Service has attempted to work with local law enforcement to issue fines to dumpers. However, Murdough has not found this to be effective. The Forest Service only issues fines of up to \$50, which does not cover the cost of dump site cleanup. The Forest Service has focused on preventing dumping, but these efforts have not been very successful. For a while, the Forest Service tried to regularly clean areas for hope that if people noticed areas being monitored, they would be less likely to dump there. The Forest Service also posted signs at these sites. This was fairly effective, but they found that it merely moved the locations where people were dumping, and did not lower the total amount being dumped. YCC crews now clean up sites every two to four weeks. Murdough is open to the solution of blocking roads, but feels it is difficult to implement because road blockage often angers local residents.

Murdough has a few ideas for the prevention of illegal dumping. One is a trash amnesty day for the entire county. Oakridge currently has a trash amnesty day, but it is only available for people within city limits. Murdough would like to see one created for people throughout the county. More public lands cleanup days would also be helpful.

#### Key Points:

##### Dump sites

- Types of waste dumped:
  - Household garbage
  - Yard debris
  - Tires
  - Appliances
- Seasonal changes in dumping:
  - Spring- highest incidence of dumping
- Most dumping occurs near urban and housing centers

##### Cleanup

- Who does clean up efforts:
  - Hydrologists for a month once a year

### 8.5.3 U.S. Forest Service Interview Reports

- YCC crews do a two to four week circuit of lands
- Youth clean up crews

#### Budget

- Money for illegal dumping issues comes from:
  - PECO
  - General budget
- PECO is used to fund:
  - Clean up of abandoned vehicles \$7000 in 2003, \$5000 in 2004
  - Youth clean up crews \$48,000 in 2004
- Money from general budget is used to fund:
  - Riparian restoration \$3000 per year
  - YCC crews \$3000 per year
  - Community clean ups/prevention
    - All of these three activities in 2003 cost \$13,000
    - All of these three activities in 2004 will cost \$58,500
- In order of highest cost what is paid for in clean up efforts:
  - Salary
  - Contract crews
  - Fees at transfer stations

#### Enforcement

- The fines for illegal dumping:
- -\$50

#### Prevention

- Deterrents used:
  - Signs
  - Consistent clean up/monitoring
  - Road closures (rarely used)
- Education used:
  - Participate in statewide/city cleanups
- Ideas for prevention:
  - Countywide trash amnesty day

#### Further Insight

- Amount of roads in Middle Fork Ranger District
  - About 3000 miles
- *More information about the Oakridge River cleanup day. Does Lowell do this as well?*
- *How could we set up a trash amnesty day? Does Lowell do this?*

## 8.6 Cleanup Day Report

### 8.6 Cleanup Day Report

The illegal dumping project team participated in the Down By The Riverside cleanup event on Saturday, May 22, 2004. The event also took place the previous Friday, May 21, 2004, and was organized and sponsored by the Middle Fork Willamette Watershed Council, with additional sponsorship by the Oregon Parks and Recreation Department, SOLV, U.S. Army Corps of Engineers, U.S. Forest Service Middle Fork Ranger District, and the University of Oregon Environmental Studies Service Learning Program. Free pizza (donated by Gatehouse Pizza of Pleasant Hill) and t-shirts were distributed to volunteer participants. The Oregon Parks and Recreation Department donated a pavilion rental for Friday and Saturday. Twenty-eight volunteers, nine agency staff members, and Amy Mital of the Middle Fork Willamette Watershed council participated on Saturday. Five adults (one teacher, two parent chaperones, and Army Corps Staff Member and Amy Mital) and twenty-five 4<sup>th</sup> grade students, in addition to fishermen who aided in the cleanup effort where they were recreating, participated in the Friday event. Dump sites on USACE and USFS land were cleaned. On Thursday, May 20, 2004, two days before the Down By The Riverside event, Chant Eicke, Beth Webb, and Stephanie Erickson drove out to the cleanup area to re-discover and tag known dump sites. Past survey routes were followed, and illegal dump sites were marked by tying ribbon to nearby shrubbery or trees.

On Saturday's cleanup day, volunteers met at 9:00 am at Lowell State Day Use Area, on the north shore of Dexter Reservoir. Volunteers were divided into three teams. One agency staff member and a member of the illegal dumping project group led each team. One group cleaned dump sites on USFS land, and the other two teams cleaned USACE dump sites surrounding Fall Creek and Lookout Point Reservoirs. Volunteers cleaned dump sites until 12:30 pm and then met back at Lowell State Day Use Area for consumption of donated pizza, snacks, and beverages. The event lasted until 1:00 pm. The cleanup event was successful, with an estimated 2,860 pounds of trash cleaned from the forests. Participating land agencies paid tipping fee costs at transfer stations for deposition of removed waste. Many illegal dump sites were cleaned and local residents and agency staff members interacted and worked together to make their community cleaner.

The Down By The Riverside event was part of an annual and statewide SOLV cleanup event. Volunteers in nearly every Oregon County organized a cleanup event. This was the ninth year for the event, and was the largest SOLV cleanup day in the event's history.



## 8.7 Individual Case Study Reports

### 8.7.1 Adopt-A-Site

*Program Contact information:*

*Address:* Central Vermont Solid Waste Management District  
137 Barre Street  
Montpelier, Vermont 05602

*Tel:* 802-229-9383  
800-730-9475

*Fax:* 802-229-1318

*Email:* [comments@cvswwmd.com](mailto:comments@cvswwmd.com)

*Website:* [http://www.cvswwmd.com/resident\\_services/adoptasite.html](http://www.cvswwmd.com/resident_services/adoptasite.html)

*Program established:* Spring 1997

*Program Overview:*

Adopt-A-Site is a unique program that emphasizes community involvement and education, rather than enforcement, as a solution to illegal dumping. The Central Vermont Solid Waste Management District (CVSWMD) first began cleaning dump sites on the annual Green-Up day, which brings the community together to clean trash sites once a year. The district decided they needed more than one day to clean trash in the district. Program designers took findings from a study run by Keep America Beautiful, Inc. to shape a program where volunteers keep a particular site clean. This study states that if one shows ownership and continual presence at a site, then less dumping occurs. CVSWMD hopes that this program will provide a long-term solution to the illegal dumping problem in central Vermont.

The goals of the program are to improve environmental quality and protect public and environment health. More specific goals include broadening knowledge of illegal dumping and involving the community. The program is unique because it deviates from a roadside pickup program: it is site specific and education rather than enforcement based. Adopt-A-Site goes beyond general litter and attempts to prevent severe consequences of illegal dumping, including poor health and pollution.

The Adopt-A-Site program involves several different components, including site identification, volunteer organization, cleanups, monitoring, and site beautification. Concerned citizens usually volunteer a site on their own property to become part of the program. In order for the site to be designated as part of the program, it must meet the following criteria: be in the district (which includes 22 communities in central Vermont), be accessible, and be anonymous dumping. If the dumping is attributable to a specific individual, then program coordinators write a letter to the individual and charge them for the cost of cleanup. The perpetrator usually acknowledges this, and a check arrives by mail to pay for the expense.

A site receives an adoption group when the CVSWMD designates it as an Adopt-A-Site. Groups choose a site already in the program, or one of their own. Groups are as small as 1-2 people or as many as 12. Frequent adoption groups form from Kiwanis, Knights of Columbus, Girl Scouts, Boy Scouts and various high school classes. An initial cleanup then takes place. CVSWMD provides equipment and work crews when necessary. After the initial cleanup, groups are responsible for monitoring their site and

### 8.7.1 Adopt-A-Site

removing any new garbage for at least a year. Beautification also takes place. This includes erecting a granite monument, planting trees, and putting up fences or signs.

An annual newsletter keeps adoption groups, volunteers, and the community informed and connected. Press releases also appear regularly and publicize the efforts of adoption groups in keeping a site clean. In addition, CVSWMD provides adoption groups with Thank You POPs (Point-of-Purchase), which are small plexi glass stands that recognize the efforts of a particular group. These also increase awareness of the program. Occasionally, paid advertisements are used. Peter Scherer, the program coordinator, is unaware of any other currently active programs that are similar to the Adopt-A-Site program, but did mention one just starting at the Winooski, a local river. The program will use volunteer groups to keep the river clean, complete projects, and educate the community.

#### *Specific Program Accomplishments:*

A total of 41 sites have been adopted since the start of the program. There are currently 24 active sites. Dumping has been successfully halted, and monitoring is no longer needed in the sites that are no longer adopted. For fiscal year 2003, the program saw the removal of 2.8 tons of trash, 9 electronics, 6 appliances, 5 pieces of furniture, 146 tires, and construction waste, including 12 yards of metal. This is down considerably from the year before. Scherer attributes this to less trash in the area to clean. Evaluation is loose, but based on the number of sites, how many are new, and with the data of what has been removed, Scherer feels that the Adopt-A-Site program severely impedes illegal dumping in the area.

#### *Program Staffing:*

Two individuals staff the program. Peter Scherer, the Special Program Assistant, is responsible for program coordination. He reports to Ela Abrams, the Special Programs Coordinator. While Scherer works almost exclusively with the Adopt-A-Site program, Abrams oversees all the special programs run by CVSWMD. Sometimes CVSWMD hires interns who will help with the program when necessary. The program really depends on the volunteers who donate their time. Volunteers can number up to a couple hundred. Scherer is in contact with the heads of the adoption groups, rather than individual volunteers. The number of hours put in by volunteers varies, but a typical cleanup lasts under three hours.

#### *Annual Program Budget:*

The program relies heavily on donations and volunteer hours to operate. Scherer estimates that it costs twice as much to clean up illegally disposed garbage than it does to legally dispose of it, considering work hours, donated services and equipment. In 2002, the district spent \$4,716 to dispose of trash collected from program sites. This would have cost \$3,604 for private citizens. The cost to clean up illegally disposed trash does not include hours put in by CVSWMD personnel, volunteer time, or donations.

CVSWMD provides funding for cleanup equipment rental and work crews when necessary. They look for donations from businesses for beautification of the area, including monuments from the granite quarry. Scherer feels they have a solid base for funding to deal with the issues of illegal dumping. They get some federal grants, and

## 8.7.1 Adopt-A-Site

part of the tipping fees from the dump. Towns within the district pay an extra amount per head to be part of the system.

## 8.7.2 Michigan Coalition for Clean Forests

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*Fax: (989) 275-5167*

*E-mail: takacs@michigan.gov*

*Program Established: May 1991*

*Program Overview:*

### Introduction and Background Information

The Michigan Department of Natural Resources (DNR) in Michigan's Roscommon County started an Adopt-a-Forest (AAF) pilot project in 1989. The project was created to fight the increasing numbers of illegal dump sites on public lands in the area. In May of 1991, Region II of the Michigan DNR hosted a meeting focusing on the growing problem of illegal dumping throughout the northern part of lower Michigan.

Organizations and groups represented at the meeting included the Michigan United Conservation Clubs, the Huron-Manistee National Forest, several private corporations and organizations, and the media. At the meeting, the idea of forming a coalition of concerned groups, organizations, and government agencies was proposed to orchestrate a more broad-based AAF program. This coalition was promptly accepted by attending organizations, with the stated goals of **reducing or eliminating the illegal dumping of trash on public lands** and **increasing the general awareness of recycling opportunities**. Members from the participating agencies organized a "trash team", which formed the administrative core of the coalition (see *Personnel* section).

The coordinated efforts of the coalition were instantly popular, with many other groups and organizations joining within the first year of formation. By spring of the next year (1992), an additional coalition was formed for the upper peninsula of Michigan, including 20 more agencies, environmental and civic groups, Region 1 of the Michigan DNR, the Ottawa and Hiawatha National Forests, and several large land-managing corporations. By the end of 1992, both coalitions joined, officially forming the Michigan Coalition for Clean Forests (MCCF), and became statewide with the addition of lower state wildlife management areas.

### Goals

The mission of the MCCF states, "Our mutual goals are to enhance the enjoyment and health of public forest land by eliminating illegal dumping and to increase awareness of recycling opportunities for waste materials found." The Strategic Plan, drafted by the MCCF on Feb. 5, 2004 focuses on eight general goals for a 2004-2009 timeframe:

## 8.7.2 Michigan Coalition for Clean Forests

- *Better Waste Management*: increased alternative disposal/reuse options and availability.
- *Funding*: program funding from a diversity of sources.
- *Education*: Increased education of the public on the perils of dumping on forestland, for law enforcement officials on laws pertaining to illegal dumping, and for local governments on disposal options available.
- *Improved Laws*: for better waste management, stiffer penalties, and fines used as financial support for the program.
- *Stronger Partnerships*: with new and existing partner organizations statewide.
- *Higher Priority*: a contact person in each agency district or unit, and consideration of AAF by agencies as a primary mission rather than incidental.
- *Incentives*: for participating volunteers and partners, and disincentives for dumpers.
- *Increased Services*: making needed equipment, supplies, active volunteers, and elderly assistance readily available.

In the Strategic Plan, the MCCF further outlines 38 more specific sub-goals.

### Activities

The Adopt-a-Forest program, which is the heart of activities for the MCCF, focuses on prevention through education, law enforcement, and improved legal recycling and disposal options. The program relies heavily on volunteer efforts to clean existing trash sites and become an “army of educators”. A group or organization can contribute to the AAF through three methods: 1) adopting physical cleanup responsibility for a designated area, 2) donating equipment to a cleanup project, e.g., shovels, gloves, bags, heavy equipment, food, etc., and 3) contributing financial support for equipment rental or purchase, tipping fees, etc.

At the administrative level, the *trash team* of representatives from partner agencies and organizations meet 3 to 4 times yearly, to make decisions about program priorities, as expressed by members and volunteers. The *trash team* also maintains a statewide database to monitor physical cleanup efforts, and track statistics. The database is updated through progress reports completed by project managers and volunteer groups.

Every other year, a large picnic event (600+ attendees in 2003) is held to honor public land volunteers for their efforts.

### Unique to MCCF

The MCCF serves as a catalyst of activities and action surrounding illegal dumping issues. The coalition maintains a website that provides a *database* where dumps can be reported, catalogued, searched, and discovered, at URL <http://www.cleanforests.org/search2.shtml>. The online database of statewide dumps allows local individuals, groups, organizations, and businesses to discover where and how their resources are needed. The database greatly simplifies the contribution process. The MCCF creates a *dialogue* surrounding the dumping issue through the website and other publications, by providing newsletters and how-to guides, and by

## 8.7.2 Michigan Coalition for Clean Forests

introducing and explaining pertinent issues and information. *Trash team* members are present at most land agencies, enabling this dialogue to reach from agency personnel to interested private groups and citizens, and enabling a fertile discourse between participating groups and organizations.

The program monitors statewide activities, including coordinating funding, organization, and equipment between otherwise solitary groups, to enable higher success for mutual objectives. Local activities can be announced through the network of partner organizations and volunteers, allowing guaranteed public support for most trash related activities. The MCCF uses the Internet and the website <http://www.cleanforests.org> as the central forum for these activities.

### Publicizing

The MCCF website, <http://www.cleanforests.org>, serves as the main forum for announcements, dialogue, and discussion of trash issues. News releases are used infrequently for announcements, activities, and other special events, but individual volunteer groups handle most cleanup activity announcements. An informative newsletter is delivered semi-annually via mail and email, includes updates about MCCF statewide activities and goals, and gives a host of interesting trash related facts, information, and stories. The newsletter's composition is intended to be very informative, yet interesting for a diversity of audiences.

### Similar Programs

The MCCF website links to several similar programs in other states. These include:

- California: Six Rivers National Forest Adopt-a-Forest Program
  - <http://www.fs.fed.us/r5/sixrivers/news/2003/07/21/>
- Missouri: Solid Waste Management Program
  - [http://www.dnr.state.mo.us/alpd/swmp/dumping/enf\\_instruct.htm](http://www.dnr.state.mo.us/alpd/swmp/dumping/enf_instruct.htm)
- Oregon: SOLV Program
  - <http://www.solv.org/>
- Pennsylvania: PA CleanWays and PA Forest Lands Beautification Program
  - <http://www.pacleanways.org/>
- Texas: Time to Recycle
  - <http://www.timetorecycle.com/index.asp>
- Washington: Friends of the Trail
  - <http://www.friendsofthetrail.org/>

### Accomplishments:

#### The Coalition

One of the largest successes of this program is the broad-based statewide coalition, including organizations ranging from the US Forest Service to Cub Scouts. Major partners include:

- Huron Manistee National Forest
- Ottawa National Forest
- Hiawatha National Forest

## 8.7.2 Michigan Coalition for Clean Forests

- Michigan Community Service Commission
- Michigan Department of Natural Resources
- Michigan Department of Environmental Quality
- Michigan Forest Resource Alliance
- Clare County Sheriff's Department

### The Website and Database

The MCCF website is the focal point and coordinator of activity for all the groups and individuals involved. Listing newly discovered dump sites, finding dump sites in local areas that need sponsors, and providing a forum for announcements and support are main organizational components provided by the website and database, allowing statewide, coordinated efforts. New dump sites are reported almost daily, with nearly 25% of sites cleaned within 1 year of being posted.

### Statistical Achievements

Michigan holds approximately 7 million acres of state and federal public lands. The MCCF has coordinated the cleaning of 1.1 million acres since the program began in 1991. In 2003, volunteers reported the removal of 4570 scrap tires from public lands, contributing to a total of 54,500 tires removed since 1991.

### *Personnel:*

Private individuals and members from the main coalition agencies (listed above) form the 40-person *trash team* who meet regularly to make decisions about priorities, goals, and allocation of resources. Each agency has one or more permanent positions within the coalition, though the people within those positions change regularly. Only three of the original *trash team* members still hold positions. The positions do not hold specific titles or duties; when tasks or needs arise, the member or members with the most expertise or ability in the particular area are delegated responsibility. The Michigan DNR is the lead organization of the coalition in respect to administrative and organizational duties. *Trash team* members are paid by their corresponding organizations or agencies, only for their agency position. This creates limits to the amount of time and effort a *trash team* member can contribute, outside of volunteer activity, based upon available time, funding, and priorities within the agency. Personnel responsibilities are mainly delegated through the three or four annual MCCF meetings and as issues arise.

Nearly 1,000 volunteer groups, with an average of 10 members per group, comprise the rest of the people involved with the AAF program. In 2003, over 4,000 hours of volunteer cleanup time were reported, contributing to an estimated total of 54,700 hours since 1991. On average, 4,000 hours of volunteer time are reported annually. These estimates are very conservative because only about 10% of the volunteer groups report their logged cleanup hours.

### *Budget: (see table)*

The MCCF operates primarily on private and corporate donations. Volunteer groups and local donations locally fund most local AAF cleanup activities. Local funding is not tracked by the MCCF. A special tax-deductible fund is set up for donations through the

## 8.7.2 Michigan Coalition for Clean Forests

Michigan United Conservation Clubs, a 501(c)(3) organization. These funds can be donated for statewide use by the MCCF, but are usually earmarked for a particular area. These donations are only used for dumpster costs and tipping fees related to cleanup efforts. Every two years, fundraisers gather \$8,000 in donations for the MCCF Picnic event.

The only annual funding comes from the state and federal governments. No annual funds are available for administrative costs, which are absorbed by coalition agencies. The state provides \$25,000 annually for trash disposal costs, which is allocated out of the state general fund. (No specific state taxes, fees, or fines contribute to MCCF funding.) The federal government contributes \$8,000 annually for cleanup costs on federal lands.

Supplemental environmental grants have contributed 3 one-time corporate donations totaling \$35,000. These are fines for breakings state environmental air, water, or soil quality laws.

<b>Source of \$</b>	<b>Annual \$</b>	<b>Donation \$</b>	<b>One-time \$</b>
State Gov.	25,000		
Fed. Gov.	8,000		
Picnic Fundraising		8,000	
Local Funding		unknown	
Supp. Env. Grants			35,000

## 8.7.3 Gloucester County Clean Communities

*Program Contact information*

*For statewide information:*

*Sandra Huber - Executive Director*

*New Jersey Clean Communities Council*

*Phone: 609-989-5900*

*Fax: 609-989-9066*

*For Gloucester County information:*

*Phone: 804-693-5370*

*Program established: 1987*

*Program Overview:*

The New Jersey Clean Communities Program was created in 1987 by the New Jersey legislature through the Clean Communities Act. The program was started because of a litter problem in New Jersey's public areas and along roads. With so many people in such a small area, the state recognized that litter and trash were an important problem that was detrimental, not only to health and the environment, but also to state tourism and business. The Clean Communities Act created a fund that can be used by counties for a three-pronged attack on litter including: cleanup, enforcement, and education. The

### 8.7.3 Gloucester County Clean Communities

Gloucester County Clean Communities Program is only one of many Clean Communities Programs throughout the state of New Jersey.

#### *Goals*

The Gloucester County Clean Communities Program seeks to keep Gloucester County free of litter and illegal dumping in public areas. It also hopes to instill in local residents a sense of ownership in land and community and change the attitudes that lead to irresponsible waste disposal. These goals are met through the three components of the New Jersey Clean Communities Program: cleanup, education, and enforcement.

#### *Activities*

##### Cleanup

Gloucester County's litter pick-up program consists of four separate components: one day group cleanups, the Adopt-A-Road program, the Adopt-A-Stream Crossing program, and the Adopt-A-Spot program. These programs are all fairly similar, but each has a different focus. The one day cleanup program gives grant money to groups of at least fifteen people to allow them to do a three hour litter removal where needed. In the Adopt-A-Road and Adopt-A-Stream Crossing programs groups adopt a stretch of road or stream. In their two year commitment to this location the group must complete at least four cleanups of the road or stream per year, and signs are posted listing the group that has adopted the area. The Adopt-A-Spot program allows individuals to adopt a specific smaller area that is prone to litter. It is also geared towards children who cannot, for safety reasons, participate in Adopt-A-Road/Stream programs. In the Adopt-A-Spot program kids can adopt their own schoolyard. In each of these programs Gloucester County Clean Communities Program furnishes groups with Litter Patrol signs, garbage bags, recycle bags, and safety vests. The point of these programs is to instill in people a sense of ownership and pride for these areas that will make them less inclined to litter on them. Groups that are interested in participating in one of these programs can call up the Clean Communities office.

Gloucester County Clean Communities Program has other activities that focus on litter removal. The program sponsors a yearly Public Lands Cleanup day. During this cleanup day, a group of volunteers tackles a specific area of public lands that has a problem with illegal dumping. The volunteers spend the entire day removing all trash from that area. Also once a year, two large trailers are paid for by the Clean Communities Program to clear out tires that have been dumped on county roads and lands. During the summer, a crew of five to seven students clean up roads that are deemed "litter prone" by county officials. To complement these programs there are two annual countywide hazardous waste pickups, as well as local convenience centers set up around the county where trash and recycling can be taken. The dates and places for all of these programs are advertised in local newspapers and media so that the community is aware of them.

##### Education

Environmental education is a large part of Gloucester County's Clean Communities program. It is this county's strong emphasis on education that sets it apart from other Clean Community Programs within New Jersey. Each year environmental education shows are created and presented to local elementary schools free of charge. Also every



### 8.7.3 Gloucester County Clean Communities

year, five schools win a trip on a refurbished oyster schooner where they learn more about the local estuary environment. For adults, an environmental shopping program has been created that teaches how to avoid excessive packaging, etc. This program is available to any group within the community. Tips on how to avoid waste generating and hazardous products can also be found on the Gloucester County's Clean Communities website, <http://www.co.gloucester.nj.us/parks/cleanc.htm>.

#### Enforcement

Gloucester County has a sheriff officer who is entirely focused on the issue of illegal dumping. This officer patrols roads on the county looking specifically for littering and illegal dumping. A tip-line has been developed that people can call if they witness illegal dumping. This number is posted on strategically placed "no dumping" signs throughout the county.

#### *Publicity*

Gloucester County's Clean Communities programs and activities are publicized through local newspaper advertisements, radio ads, and their website: <http://www.co.gloucester.nj.us/parks/cleanc.htm>

#### *Similar Programs*

Almost every county in New Jersey has its own Clean Communities Program. The emphasis of these programs and the activities that these programs put on are all a little different depending on the needs and interests of the community.

#### *Accomplishments*

The Gloucester County Clean Communities Program is proud of its accomplishments in the realm of environmental education. Its school programs are well received and innovative. Also, the community cleanup days are very useful in getting people out to see the problem of litter on public lands, as well as getting the trash removed.

#### *Volunteers and Monitoring Success*

The Gloucester County Clean Community Program is coordinated by a Clean Community Coordinator, a Clean Community Committee that meets monthly, and by hundreds of community volunteers. Thousands of volunteers throughout the state of New Jersey help out the Clean Community Program. There has not been a lot of record keeping within the state about the effectiveness of this program, though there is the sense that New Jersey is a much cleaner state than some of its neighbors thanks to this program. However, to determine just how useful this program has been, the Clean Communities Council is starting a statewide survey of litter in 2004. At 100 sample sites the amount, type, and possible origin of litter will be recorded. Towns and counties will also report how Clean Communities grant money is spent, the number of cleanups held, the number of volunteers who participated, the amount and type of litter and recyclables picked up, and the number and type of educational programs offered to schools and community groups. The Clean Communities Council will use this information to test the effectiveness of the program.

#### *Funding*

### 8.7.3 Gloucester County Clean Communities

The funding for Clean Communities Programs in Gloucester and other New Jersey counties comes from a tax put on businesses that produce potentially litter-generating products such as:

- (1) Beer and other malt beverages;
- (2) Cigarettes and tobacco products;
- (3) Cleaning agents and toiletries;
- (4) Distilled spirits;
- (5) Food;
- (6) Glass containers;
- (7) Groceries;
- (8) Metal containers;
- (9) Motor vehicle tires;
- (10) Newsprint and magazine paper stock;
- (11) Drugstore sundry products;
- (12) Paper products and household paper;
- (13) Plastic or fiber containers made of synthetic material;
- (14) Soft drinks and carbonated waters; and
- (15) Wine.

The tax is collected by the New Jersey Department of Treasury. It consists of a user fee of .0003 on all in-state companies manufacturing, selling, or distributing litter-generating products. For out of state companies this user fee is .00025. This money goes into the Clean Communities Fund. The Department of Environmental Protection then allocates the money in the fund annually as grants for programs related to the goals of the Clean Communities Program. Ten percent of the fund goes towards state litter pickup and the enforcement of litter-related laws. Twenty five percent is used for grants for recycling programs within the state. Three hundred thousand dollars is given to the Clean Communities Council- a non-profit that heads a statewide education campaign against littering. The rest is given to cities with housing units of 200 or more for litter cleanup programs, Adopt-A-Highway programs, public education programs, and the enforcement of litter laws.

### 8.7.4 PA CleanWays

*Program Contact Info:*

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*Fax: (724) 836-1980*

*Email: info@pacleanways.org*

*Program established:*

*June 1990*

*Program Overview:*

Illegal dumping in Pennsylvania prior to implementation of the “PA CleanWays” program was similar to the typical illegal dumping most states experience, according to PA CleanWays Vice-President Debbie Patz, in an e-mail interview correspondence. Sue Wiseman took notice of the problem of illegal dumping near her home and decided to

## 8.7.4 PA CleanWays

do something about it. With encouragement from local citizens she created a non-profit organization with a mission “to empower people to eliminate illegal dumping and littering in Pennsylvania.” PA CleanWays was founded in June of 1990. Debbie Patz considers PA CleanWays to be very successful at preventing illegal dumping and littering in Pennsylvania. The organization started off as a small grassroots campaign, and with the help and involvement interest of many organizations, PA CleanWays has grown into an efficient and successful illegal dump mitigation resource. Today 124 individuals, groups, and businesses are partnered with the 22 PA CleanWays chapters across the state.

PA CleanWays has four central goals:

- Sharing successful strategies for addressing illegal dumping and littering.
- Educating people to the problems and solutions to illegal dumping and littering while fostering long-term behavioral change.
- Empowering people to initiate positive change to resolve illegal dumping and littering in their communities.
- Being a strong voice for a cleaner Pennsylvania and to be a comprehensive and effective resource for Pennsylvanians who want to clean it up and keep it clean.

PA CleanWays implements and oversees five different programs to achieve their goals. These Programs include: Cleanup, Education, Adoption, Beautification, and Proper Disposal.

Grassroots volunteers and staff members with extensive experience in the problem of illegal dumping participate in the Cleanup program. PA CleanWays’ Cleanup program teaches individuals how to build community cleanup teams, create a maintenance plan to keep an area clean, address problematic disposal items, and conduct comprehensive education campaigns. A clean-up resource guide called “Cleaning Up Your Neighborhood and Keeping It Clean,” is a 24-page guide to eliminating dumps and litter along roadways, waterways, and greenways, and can be downloaded from the PA CleanWays website, <http://www.pacleanways.org>. This guide is a primary tool in the Cleanup program, and teaches cleanup strategies for organizing a cleanup event, disposing and recycling collected materials, and safely cleaning dumped and littered areas.

PA CleanWays believes education is key to changing behaviors and attitudes about illegal dumping, and thus offers an extensive Education program. PA CleanWays has a “two-pronged approach to education: changing the behavior of those who are trashing our lands and waters, and involving more people as active stewards of the land.” Children’s literature, including “Open Your Eyes to Litter,” “Our Littered Past” (also available in Spanish), and “Think Before You Toss,” can be ordered through PA CleanWays. “Open Your Eyes to Litter” teaches the difference between intentional and accidental litter, and explains the environmental harm caused by both acts. “Our Littered Past” takes children on a waste history time travel from prehistoric time to the present, outlining the origins of our waste issues. “Think Before You Toss” describes proper trash disposal and emphasizes the importance of re-using materials. These books contain puzzles, activities, and pictures to color, and can also be used as a “multi-disciplinary theme” for an Environmental or Social Studies curriculum unit.

#### 8.7.4 PA CleanWays

Educational videos for children and adults are also available. The humorous “People – A Solution to Pollution,” teaches viewers about accidental dumping. A mime who unknowingly contributes to the litter problem is the video’s central character. “People – A Solution to Waterway Pollution,” showcases the harmful environmental effects of illegal dumping. “Illegal Dump Cleanup Safety Guidelines” teach individuals how to safely clean dump sites. Videos can be purchased from PA CleanWays, and can also be viewed on the PA CleanWays Education website, <http://www.pacleanways.org/education.html>.

An educational program called Project Trash is also an effective education resource. Project Trash is an environmental education curriculum designed for grades 5-9. Student participants research an illegal dumping related topic and come up with ideas to solve the problem. This enables individuals to meaningfully connect with the issues they care about, while working in a collaborative and encouraging learning environment.

Games that teach illegal dumping and litter awareness are additional PA CleanWays educational tools. The Litter IQ Board creates “litter awareness” through an “interactive electronic display” that teaches users about how long litter stays in the environment before being decomposed. PA CleanWays notes that children are astounded to learn that littered aluminum cans will still be in pristine condition by the time the children reach adulthood. The “Open Your Eyes to Litter” board game (a game that coincides with the similarly titled book) was further created to involve and educate students about waste issues. A Recycling Board (that has similar electronic display construction as the Litter IQ Board) was recently created to teach children about recycling and how to incorporate it into their lives. PA CleanWays also recognizes young people and youth groups for helping to improve and clean up the environment by giving out a Litter Action award and hosting photo contests. An “Open Your Eyes to Litter” poster and placemats contest is also held once a year, and awards children in grades 4-6 for designing trash-themed posters and placemats. A newsletter titled “Kids for Cleaner Ways,” that shares stories about “real kids making a difference in their communities,” is published twice a year and is distributed to children and teachers who have had past contact with PA CleanWays. Conferences, Fairs, and Statewide Meetings are also regularly attended and held by PA CleanWays.

PA CleanWays’ Adoption program encourages citizens to adopt local roads, greenways, trails, waterways, neighborhood blocks, and other areas, and is a very effective illegal dumping and littering prevention method. This program coincides with PennDOT’s Adopt-A-Highway program and is organized by local PA CleanWays chapters. Individuals, groups, and local businesses can contact their local PA CleanWays chapter to find out more information about adopting an area of land. Most areas are suitable candidates for adoption. Once an area is adopted, the local PA CleanWays chapter conducts pre-cleanup safety trainings and arranges for implementation of recognition signs. Posted signs inform local residents of adopted areas, express that local citizens care about the land, and ultimately discourage others from dumping and littering. Adoptions are a two-year commitment to keep designated areas clean and trash-free.

#### 8.7.4 PA CleanWays

PA CleanWays' Beautification program helps to keep parklands visually appealing and clean. Clean land is less likely to be dumped upon than trashed and polluted land. For the Beautification program, PA CleanWays joined with National Tree Trust (a non-profit organization created under the America the Beautiful Act of 1990) to provide PA CleanWays County chapters with tree seedlings to be planted at former illegal dump sites. Volunteers in this program plant and "nurture" trees at a tree bank, and when the trees have reached heights of 1-4 feet, they are then planted in forests, parklands, and other previous illegal dump sites. PA CleanWays believes natural beauty is a deterrent to littering and illegal dumping.

The PA CleanWays Proper Disposal program sponsors recycling and collection events for hard-to-dispose items, and partners with other organizations to promote proper disposal. Making legal disposal of waste more convenient reduces illegal dumping. PA CleanWays works with local solid waste and recycling facilities to manage waste materials. Recycling is promoted, and waste materials, that would potentially be illegally dumped, are collected. Special collections are organized for materials like tires, household hazardous waste, and electronics. Past Proper Disposal events have included: "Post Holiday Electronics, Appliances, and Hard-to-Dispose Items Recycling Event," "Spring Recycling/Collection Event," "Economy Borough Tire Round-Up," various compost workshops, Christmas tree collections, and battery, cell phone, appliance, and household hazardous waste recycling and collection.

Debbie Patz believes PA CleanWays is unique in its "comprehensive approach, which covers the full spectrum of issues and strategies for proper waste management and disposal," and its "grassroots approach, which focuses on local input, involvement, and support to address local problems." News releases and media help publicize PA CleanWays news bulletins and events. PA CleanWays' website, newsletters, educational displays, and various resource publications (e.g., guides on organizing cleanups, working with enforcement agencies, and communications with partners) further promote PA CleanWays' mission. PA CleanWays has been an inspiration for the development of similar organizations. PA Forests is a branch of PA Cleanways that works to fight illegal dumping in forests. PA Forests is also managed by the Pennsylvania Department of Natural Resources and Conservation. Professional Recyclers of Pennsylvania, Earth 911, Greenworks Television, National Tree Trust, and National Arbor Day are other Pennsylvanian environmental organizations that work to prevent illegal dumping, often in conjunction with PA CleanWays.

Debbie Patz measures PA CleanWays success in numbers, by the amount of properly disposed waste that has been legally disposed. From June 1990 to December 2003, PA CleanWays has coordinated 400 illegal dump site cleanups and 426 hard-to-recycle events, and has "properly disposed of 5,897 tons of trash, 912 tons of scrap metal, 237,351 tires, 9,610 freon appliances, 6,054 other appliances, 8,230 vehicle batteries, 29,285 Christmas trees, 169 tons of hazardous household waste, 4,893 tons of newsprint, paper, and magazines, and 135 tons of computers and electronics." Patz further noted:

"Our efforts have made a significant difference and we document many of our cleanups with 'before' and 'after' photos that tell that story quite

#### 8.7.4 PA CleanWays

effectively. We also have a corps of volunteers who monitor cleaned areas for subsequent illegal dumping activity. Our projects consistently demonstrate the truth of the saying ‘trash attracts trash’ – the converse is also true – cleaned areas have a much higher likelihood of staying clean.”

Thanks to PA CleanWays efforts to keep Pennsylvania clean, a noticeable decrease in the amount of illegally dumped material has been achieved. Illegal dump cleanup success is regularly monitored and evaluated. Patz believes evaluations are an “integral part” of PA CleanWays activities. Volunteer monitors routinely survey previous dump sites. If illegal waste is evident, the proper enforcement agency is contacted, and existing trash is removed. After cleaning, sites are often seeded and mulched, and deterrents like signs or gates are installed to discourage future dumping. These techniques help to ensure the “integrity of cleaned dump sites across the state.” In conjunction with the PA Department of Conservation and Natural Resources, PA CleanWays is also involved in a multi-year project to remove illegal dumps from state parks and forests. Patz notes evaluation to be an integral part of this project because it will help showcase apparent improvements in illegal dumping since PA CleanWays foundation, and also encourage further mitigation and improvement.

##### *Program Staffing:*

PA CleanWays has 13 full time and 5 part time staff members. 20,666 people have volunteered between 1990 and December 2003, for a total of 85,384 volunteer hours. 888 people volunteered with PA CleanWays between 2003-2004, for a total of 6,000 volunteer hours. Most volunteers help to clean up illegal dump sites, and participate in the adoption and beautification programs.

##### *Annual Program Budget:*

PA CleanWays’ annual budget is about \$2.1 million, and is funded primarily by grants and both cash and in-kind donations. Grants in 2002 were received by the Pennsylvanian Department of Community and Economic Development, Department of Conservation and Natural Resources, Department of Environmental Protection, Dominion Foundation, Environmental Fund of Pennsylvania, Katherine Mabis McKenna Foundation, Mary Hillman Jennings Foundation, National Tree Trust, Professional Recyclers of Pennsylvania, U.S. Environmental Protection Agency, Waste Management. Grantors are primarily based in Pennsylvanian. Allegheny Energy, ARC Technologies, Dominion Foundation, Tribune Review, and Waste Management also contributed donations in 2002.

## 8.8 Potential Grants

Grant #1: Community Grant

**Funding Source:** The Oregon Community Foundation

### **Types of projects funded**

Priorities for projects (#4 probably most applicable):

1. To nurture children, strengthen families, and foster the self-sufficiency of Oregonians
  - Supporting parents and others who care for children and the
  - Providing youth with experiences that build character and judgment
  - Involving communities in assisting people in crisis
  - Helping individuals and families achieve long-term self-sufficiency
2. To enhance the educational experience of Oregonians
  - Helping children enter school ready to learn
  - Improving access to education using models proven to be effective
  - Involving parents and communities with schools in the educational process
  - Linking learning and community service activities for students
3. To increase the cultural opportunities for Oregonians
  - Reaching under-served audiences
  - Strengthening arts organizations
  - Showcasing Oregon's history and culture
4. To preserve and improve Oregon's livability through citizen involvement
  - Building community spirit and consensus about key issues facing Oregonians
  - Training and involving volunteers and leaders to solve problems
  - Helping residents improve their local communities and the state

### **Size and Time Frame of projects**

- Size of grants:
  - Median grant: \$12,500
  - Average grant: \$14,950
  - Awards at or above \$35,000: 3.8 percent
- Length of projects:
  - 1 year usually

### **Deadlines**

- February 1 and August 1

### **Reporting responsibilities**

Must draw up a plan for evaluating the project's effectiveness

### **For More Information**

## 8.7.4 PA CleanWays

[http://www.ocf1.org/grant\\_programs/community\\_grant\\_fr.htm](http://www.ocf1.org/grant_programs/community_grant_fr.htm)

### Grant #2:Oregon DEQ

- Oregon Department of Environmental Quality
  - Application materials will be available June 14, 2004 (on DEQ grant website: <http://www.deq.state.or.us/wmc/solwaste/grants/grants.html> )
- The Oregon DEQ provides grants for solid waste, non-point source pollution prevention, and clean water programs. Solid waste grants deal specifically with our project.
  - Recipients of the 2003 Solid Waste/Recycling Funded Grant Project included:
    - Klamath County: “The city will develop a solid waste management plan that focuses on collections within the city to promote & enhance recycling & composting & enhance proper disposal of HHW, C&D debris, & electronics.”
    - Wallowa County: “The county will construct a metal pole-barn building to serve as a recycle/reuse center at the transfer station. The center will be monitored by the transfer station attendant. Persons taking goods for reuse will identify what & how much they took.”
    - Crook County: “Grant will provide funds to purchase additional recycling bins for the depot at the landfill. With additional bins, people can recycle during the time that full bins are being delivered to Deschutes Recycling in Bend.”
    - Deschutes County-Central Oregon Community Action Agency Network: “Continuation of 2001 grant to expand a food recovery project in Bend, Redmond, & surrounding area. Project will focus on an education & awareness campaign to increase the number of donors & amount they donate.”
  - Recipients of the 2002 Solid Waste/Recycling Funded Grant Project included:
    - City of Echo: “The cities of Stanfield and Echo will establish a reuse site for free drop-off of yard debris. Grant funds will be used to purchase a chipper. Material collected will be composted or offered for sale as mulch.”
    - City of Portland: “Funds will be used to expand the electronics recovery facility to keep up with current demand for electronics recycling, reuse, & training. \$11,500 for construction materials & equipment, \$8,500 for rent.”
  - 2001 Projects:
    - Douglas County: “Project will develop systems to facilitate the convenient collection of used building materials from the public and the construction trade at county transfer stations. Grantee estimates a reduction in disposal of reusable materials of 25-50%.



## 8.8 Potential Grants

Umpqua Re-Builders will offer materials for sale and provide deconstruction services.”

- BRING Recycling (Eugene): “Deconstruction Jumpstart will educate contractors, designers/architects, and the public about deconstruction and material reuse and create an efficient mechanism for facilitating their involvement. Grant will pay for brochures, visits to the construction industry, and equipment for more efficient handling of materials.”
- City of Cove: “The Cove comprehensive recycling program will offer alternatives to garbage burning in the City of Cove in order to reduce the amount of toxic substances released into the community’s air, soil, & water. Of the 275 homes in the community, only 197 have garbage service; the nearest recycling depot is in La Grande, 18 miles away. Program includes expanded collection services, several clean-up days, and education/promotion.”
- Project size:
  - \$250,000 is available each year for the Solid Waste Grant program. (However, \$470,041 in funding was allocated in 2003)
  - Project funding for past projects ranged from \$7,000 to 30,000.
  - Past projects have generally lasted for one year, some for 18<sup>th</sup> months, but some organizations applied for re-funding (to continue the grant) the following year.
- Application deadline is September 10, 2004
- Grant application is not yet available
- Reporting responsibilities include:
  - Project progress report
  - Payment request and expenditure report
  - Final report/ Project completion report
  - (Reports are available on the website)
- The Solid Waste Grant Program Fact Sheet (<http://www.deq.state.or.us/wmc/solwaste/factsheets/SolidWasteProgramGrants.pdf>) states that the Oregon DEQ only awards grants to local governments. Grants are available by region. Eugene, and its surrounding area, are part of the Western Region.

Grant #3:

(66.606) Surveys, Studies, Investigations and Special Purpose Grants

Source: Environmental Protection Agency (EPA)

- Application for Federal Assistance (Standard Form) SF 424 available at [www.epa.gov](http://www.epa.gov)

Projects Funded:

- Projects associated with:

## 8.8 Potential Grants

- Air quality, acid deposition, drinking water, water quality, hazardous waste, toxic substances, and pesticides.
- Identifying, developing and demonstrating necessary pollution control techniques to prevent, reduce, and eliminate pollution.
- Evaluating the economic and social consequences of alternative strategies and mechanisms for use by those in economic, social, governmental, and environmental management positions.
- Examples of funding priorities include water quality monitoring and assessment, national data systems, watershed management, water quality criteria and standards, and Regional Geographic Initiative projects. Illegal dumping could fall under watershed management and Regional Geographic Initiative projects.
- Grants and cooperative agreements are available to support recipients' allowable direct costs incident to approved Surveys, Studies, and Investigations plus allowable indirect costs, in accordance with established EPA policies and regulations.
- Example Projects
  - Developing a reporter's guide to climate change.
  - Development of solid waste system for Indian Tribes.
  - Lead-based workshops.
  - Radon information for real estate companies.

### Historic Funding:

- 1616 awards in fiscal year 2002, totaling \$529,087,239.
- Minimum and maximum Regional awards for fiscal year 2002 were \$270 and \$38,000,000 respectively.
- Average Regional award for fiscal year 2002 was \$388,745.
- Project duration is negotiated at time of application.

### Deadline:

- No deadline for non-competitive awards.
- Pre-application administrative evaluation conducted after pre-application submission of form SF 424.

### Possible Application Difficulties

- Areas Affected by Project (Cities, Counties, State, etc)
- Federal Executive Order 12372: application may be subject to the State intergovernmental review process.

### Reporting Responsibilities:

- Requirements for grants and cooperative agreements are included in the terms and conditions of the agreements. Agreements may require quarterly, interim, and final progress reports, and financial, equipment, and invention reports.
- Subject to inspections and audit by representatives of the Comptroller General of the United States and EPA or any authorized representative.

Recipients must keep financial records until 3 years from the date of submission of final expenditure reports, including all documents supporting entries on accounting records

## 8.8 Potential Grants

and to substantiate changes in grants available to personnel authorized to examine EPA recipients grants and cooperative agreements records.

### Grant #4: EPA Environmental Education Grant

- Funding Source: Environmental Protection Agency (EPA)
  - Forms available at website: <http://www.epa.gov/enviroed/grants.html> or by calling 1-800-424-4378. Grant applications for 2004 are already closed, so this information may change for 2005 solicitation.
- Type of Projects: Provides funding for projects that “design, demonstrate or disseminate environmental education practices, methods or techniques.” The goal of the program is to “support environmental education projects that enhance the public’s awareness, knowledge, and skills to make informed and responsible decisions that affect environmental quality.”
  - Examples of past projects (taken from EPA website):
    - *4-H EM\*Power Waste Management Curriculum*  
Oregon 4-H Foundation \$5,000  
Virginia Thompson, 5390 4-H Road NW, Salem, OR 97304

The 4-H EM\*Power Program (new 4-H Environmental Stewardship Waste Management curriculum) in Oregon is being implemented through workshops to build statewide capacity to educate youth in waste management. These workshops are for teachers and other educators from both formal and informal programs. Under the leadership of adults trained in EM\*Power workshops, youth in sixth through ninth grades are identifying waste management concerns; learning how waste management concerns become issues, and becoming empowered to take action on waste management issues in their community.

- *Bear Creek Stewardship Project*  
Rogue Valley Council of Governments \$69,500  
David Jacob, P. O. Box 3275, 155 S. Second Street, Central Point, OR 97502

The Bear Creek Stewardship Project provides educational opportunities for students and teachers in the Bear Creek watershed and in rural communities in southwestern Oregon. The project sponsors a training session for educators that focuses on monitoring of water quality and provides equipment, supplies, and references necessary to conduct such testing. It also provides study kits and supports a water quality monitoring program for students. A student congress and a watershed education symposium give students the opportunity to share the results of their projects and work to improve the condition of Bear Creek. In addition, the program funds school and class environmental education projects through a small grant program and sponsors two large-scale stream cleanups, as well as the Adopt-a-Storm-Drain Program that provides drain-painting kits and informational brochures for use by students and teachers. Completing efforts under the project are two videos produced by students, one that focuses on the project itself and another that addresses misuse of storm drains, and a rural outreach program. Approximately 1,000 students in grades 1 through 12, as well as 40 educators, are involved in the project.

- Project Funds:

## 8.8 Potential Grants

- About 200-225 projects are awarded out of a pool of 1,300 applicants.
- The majority of grants awarded through the EPA's 10 regional offices are for \$25,000 or less. Several of these are designated for small projects of \$5,000 or less.
- 9-12 grants of more than \$25,000 are awarded through the EPA headquarters in Washington, D.C. These are usually between \$35,000 and \$125,000.
- Multiple year projects are available, but a continuation must be submitted for each year.
  
- Deadlines:
  - Applications due mid-November
  
- Reporting Responsibilities:
  - Specific financial, technical and other reporting requirements will be identified if an award is made.
  - Grantees must submit:
    - Formal quarterly or semi-annual progress reports
    - A final report and work products must be submitted within 90 days of budget expiration.
  
- Additional Information:
  - Grantees must provide matching costs of at least 25% of the total cost of the project. This can be provided by the grant applicant or a partner organization. Funds can be either cash or in-kind contributions, such as salaries or equipment.
  - Each year, the EPA issues a "Solicitation Notice" regarding the application procedures and grant priorities for that year. The 2005 solicitation has yet to be issued.
  - Any local education agency, state education or environmental agency, college or university, not-for-profit organization, or noncommercial educational broadcasting entity may submit a proposal (including state and local government agencies).