



Waste Wise

Reduce · Reuse · Recycle

A public service of Tillamook County Solid Waste

● Fall 2011

Falcons Rule!

Pesky gulls take flight from raptor patrol

It wasn't all that long ago that customers of the Tillamook Transfer Station on Ekloff Road felt as if they were in a scene from Alfred Hitchcock's thriller, "The Birds."

Everywhere you looked, thousands of seagulls were perching on buildings, flying through the air and waddling along in front of vehicles making their way to the tipping floors and transfer trailers where food was accessible.

The gulls are all but gone now, thanks to a contract approved by county officials and the tireless efforts of a few fearsome falcons.

"Falcons are natural predators of seagulls," explained Kort Clayton, a falconer who works for AirStrike Bird Control of Atascadero, Calif.

Clayton and three of his falcons began working at the transfer station in May and, according to county officials, the change has been remarkable.

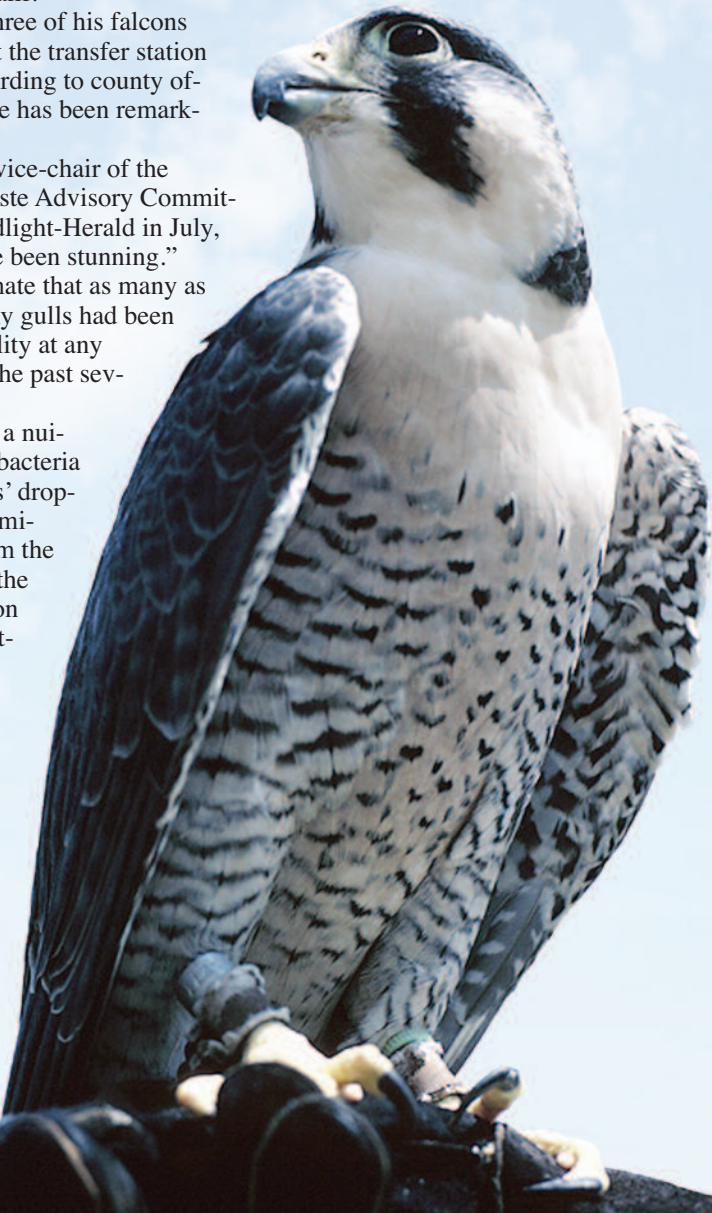
Clyde Zeller, vice-chair of the County Solid Waste Advisory Committee, told the Headlight-Herald in July, "The results have been stunning."

Officials estimate that as many as 2,000 of the pesky gulls had been infesting the facility at any given time over the past several years.

Besides being a nuisance, the e-coli bacteria found in the gulls' droppings were contaminating runoff from the property putting the county in violation of Oregon Department of Environmental Quality regulations and possibly exposing it to severe fines, according to County Solid Waste Coordinator Jennifer Purcell.

"The Transfer Station staff was

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Energy from animal carcasses?

Agencies working on co-generation plan

Disposing of animal carcasses potentially looms as a major problem for Tillamook County dairies in the future. But there is a possible solution that could lead to the county becoming more self-sufficient.

That's the conclusion of a recent feasibility study commissioned by Tillamook County, the Tillamook County People's Utility District, The Port of Tillamook Bay, the Tillamook County Creamery Association and the Tillamook County Economic Development Council.

The \$100,000 study – conducted by Tetra Tech, Inc. of Pittsburgh, Pa. – presented three possible scenarios to consider. One proposes the development of an anaerobic digester and composting facility capable of generating enough compressed natural gas to power a fleet of commercial vehicles while also producing commercially saleable compost materials.

Tillamook County Solid Waste Coordinator Jennifer Purcell said the study was undertaken to determine the economic feasibility of creating green energy and other marketable products using cow carcasses and other wastes from the county's 110 dairy farms without having to dispose of them outside the county.

Purcell noted that there are no disposal or transfer facilities in Tillamook County that are permitted to handle animal remains and that Oregon's last remaining rendering plant closed in 2007. Cow carcasses from Tillamook County are now hauled to the Coffin Butte Landfill in Corvallis at a cost of about \$250,000 a year.

"While Oregon's Department of Environmental Quality currently permits landfill disposal of animal mortalities, this could be discontinued at any time and is therefore not sustainable," Purcell said. "More important, these are valuable waste

resources for which we should be evaluating alternatives to landfill disposal."

According to Shawn Reiersgaard, Director of Environmental and Political Affairs for the Tillamook County Creamery Association, disposal of animal carcasses in Tillamook County is difficult for a couple of reasons.

"First, there's the high water table," he said. "Then there's the number of streams and rivers here with setback requirements. The cooperative is looking for a more permanent and less costly way to manage these mortalities."

The study not only looked at ways of using cow carcasses to create energy, it also considered cow manure and other complimentary "feedstocks" for the proposed digester.

Two alternate scenarios evaluated the construction of digesters scaled to produce enough electricity to power 20,000 homes.

That might not be practical, given the limitations of the local electrical grid, according to Keith Henn, Tetra Tech's director of remediation and energy, who presented the finished study in Tillamook County in August.

Henn said the study looked at two potential digester configurations. The first was a smaller, "complete-mix anaerobic digestion system" that would process manure from 3,000 milking cows, 1,700 tons of "cow mortality" a year and other wastes, including fats, oils and greases. The second was a larger, two-tank operation that would handle the cow mortalities along with manure from 6,000 cows and other

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To read the full text of the 116-page report in pdf format, go to: <http://www.co.tillamook.or.us/gov/SolidWaste/ResourceRecovery.htm> and click on "Tillamook BioEnergy Study Final Report."



BEFORE: Prior to the falcon patrols, seagulls were a major nuisance.



AFTER: Seagulls all but vanished after the falcon program was put in place.

GULLS

From Page 1

having to battle the gulls just to do their jobs,” Purcell added. “And the droppings are corrosive. The wear and tear on our county facilities was significant; we recently had to replace the roof on one of the buildings.”

On a typical day now, no seagulls are visible on site; only about 20 seagulls can be seen on the property at their peak.

“It’s fantastic,” Purcell said. “The waste haulers, transfer station staff and public loves that the gulls are gone.”

Falcons have been used in agriculture to abate pest birds, according to Purcell. But, she added, they’re relatively new to solid waste facilities.

Originally, the county issued a \$22,000, eight-week contract with AirStrike.

Clayton said that, for the first three weeks, the falcons patrolled the property seven days a week. Gradually, their presence was scaled back to three days a week for most of the summer.

“Things are quieter in the summer when the weather is better,” Clayton said. “The gulls spend more time in or near the ocean because it’s easier for them to find food there.”

This winter, Clayton said, the falcons will be working four days a week at the property. In July, the county extended a

new \$49,400 contract through the remainder of the calendar year.

Falconry is a natural technique that is part of the balance of nature, according to AirStrike officials. It is chemical-free and non-polluting. And it’s quieter because it doesn’t employ noise-making techniques that attempt to scare pest birds.

The idea is not that the falcons actually hunt the gulls, “although there is some chasing and occasional catching going on,” Clayton explained. The gulls just have to see the falcons to know that they need to avoid the area.

Pest birds are “hard-wired” to be terrified of raptors – falcons and hawks – which are their natural enemies, he said. And pest birds never get acclimated to raptors. But they will get used to noise-makers such as propane cannons, shotguns, or recorded calls. The gulls’ adaptability has made these and other program elements ineffective over the long-term.

As a result of the falcons, Purcell said, storm water sampling at the site now indicates a significant decline in e-coli bacteria to “non-detect levels.” County officials will consider continuing the gull abatement program into the new year, balancing the financial investment required with the environmental benefits and other positive outcomes, Purcell said.

other vehicles in several cities including Portland. The study estimated that a system of this size would pay for itself in 15 years.

“We’re looking to partner with the county, TCCA and the PUD to handle the issue of mortality,” said Michele Bradley, manager of the Port of Tillamook Bay.

“Since we already have a digester permitted to handle cow manure, this would be a sister facility. One of the values added would be compressed natural gas. That’s a whole new area for us. The next step would be to find funding now that we know it’s feasible.”

2011 County Fair hosts its first waste recycling program

Something new was added to the traditional corn dogs, horse racing and demolition derby at this year’s Tillamook County Fair: recycling.

For the first time in the fair’s history, recycling bins were placed throughout the fairgrounds, and visitors and vendors were offered the opportunity to recycle plastic bottles and cardboard during the Aug. 10-13 event.

Tillamook County Solid Waste Coordinator Jennifer Purcell said a total of 1,560 pounds of recyclable material was collected – 1,500 pounds of cardboard and 60 pounds of plastic bottles. That amounted to 5 percent of the 29,240 pounds of garbage generated by the fair.

“It was a pleasure working with the Tillamook County Fair to introduce recycling at this important community event,” Purcell said in a report on the pilot project. “Vendors and fairgoers, alike, expressed appreciation and enthusiasm over this pilot project.”

Purcell said the effort was aided by recycling volunteers who explained the project to vendors and visitors and



Jeanette Steinbach with one of the County Fair recycling bins.

collected plastic bottles from areas of the fairgrounds that weren’t provided with recycling bins.

Purcell said people generally cooperated with the plastics collection. Volunteers had to pick very few non-plastic items from the recycling bins, she noted.

Vendors were advised of the project with a flyer they received earlier in the week. Vendors generate a significant amount of cardboard during the event and were happy to cooperate with the new program. One food vendor contributed to the effort by delivering his own used cardboard to the collection area with a forklift he had on the site. Throughout the fair, the garbage crew assisted by ensuring cardboard items remained separate from the garbage and delivered them to specified drop boxes for recycling.

“Tillamook County Solid Waste looks forward to continuing this program and expanding on our initial success,” Purcell said.

County exceeds 2010 recycling goal

Tillamook County surpassed the 2010 recycling goal set by the Oregon Department of Environmental Quality.

Figures listed in DEQ’s “2010 Oregon Material Recovery and Waste Generation Rates Report” show that the county recycled 37.2 percent of the solid waste it generated last year, well over its goal of 30 percent. In addition, the county’s 2010 rate represented a significant improvement over the 29.1 percent rate it posted in 2009.

Overall, according to DEQ, the state for the first time last year met its long-sought goal of recycling 50 percent of the solid waste it generated. Recycled material amounted to 2.17 tons of the 4.69 tons of solid waste generated in the state.

The 2010 statewide figure represented an increase in recycling of 1.7 percent over 2009.

“This is good news and may show that

people are more aware of the value of resource recovery,” said Mary Lou Perry, DEQ’s solid waste and report coordinator.

DEQ officials said that recycling and recovering materials translates into “significant energy savings and greenhouse gas reductions.”

The report estimated energy savings in 2010 from recycling equivalent to 258 million gallons of gasoline, roughly 3 percent of all the total energy used by all sectors of the Oregon’s economy. The report estimated that greenhouse gas reductions last year resulting from recycling, composting and energy recovery were equal to eliminating tailpipe emissions from 620,000 passenger cars, or about 4.3 percent of all greenhouse gas emission in the state last year.

The report also showed that the amount of municipal solid waste disposed of in the state in 2010 declined by 2.6 percent, compared to a 10.6 percent decline in 2009.

New County Hazardous Waste Facility opens

Collections will be on first Saturdays

It was a long time coming, but Tillamook County's Household Hazardous Waste Facility has finally opened.

County officials held a ribbon-cutting ceremony and open house Sept. 20 at the new disposal facility, located on a 200- by 150-foot hillside parcel at the Tillamook Transfer Station at 1315 Ekloff Rd. Its first monthly collection event was held on Saturday, Oct. 1.

"This is the first facility of its kind on the Oregon Coast," said Tillamook County Solid Waste Coordinator Jennifer Purcell. "Our community can be very proud of its ongoing commitment to minimizing the effects of hazardous substances on public health and the environment."

Purcell explained that building the facility took much longer than originally anticipated because of permitting delays, weather and other factors.

County residents may now safely dispose of common hazardous waste items at the facility on the first Saturday of every month, she said. Subsequent events were scheduled for Nov. 5 and Dec. 3 from 9 a.m. to 1 p.m. In the past, the county was only able to sponsor events once a year.

According to Purcell, the new facility can accept paint, batteries, fluorescent lights, automotive fluids, cleaners and disinfectants, fertilizers, pesticides, herbicides, poisons, solvents and thinners, art and hobby chemicals, aerosol cans, propane tanks or bottles from barbecue grills, and swimming pool or spa chemicals.

The \$450,000 facility was built with revenue from the county's solid waste operations including fees collected at the Tillamook Transfer Station, Solid Waste Service District tax revenues and a \$66,000 grant from the Oregon Department of Environmental Quality.



A ribbon-cutting ceremony marks the opening of the new Household Hazardous Waste facility.

Paint recycling, disposal now available at new collection site

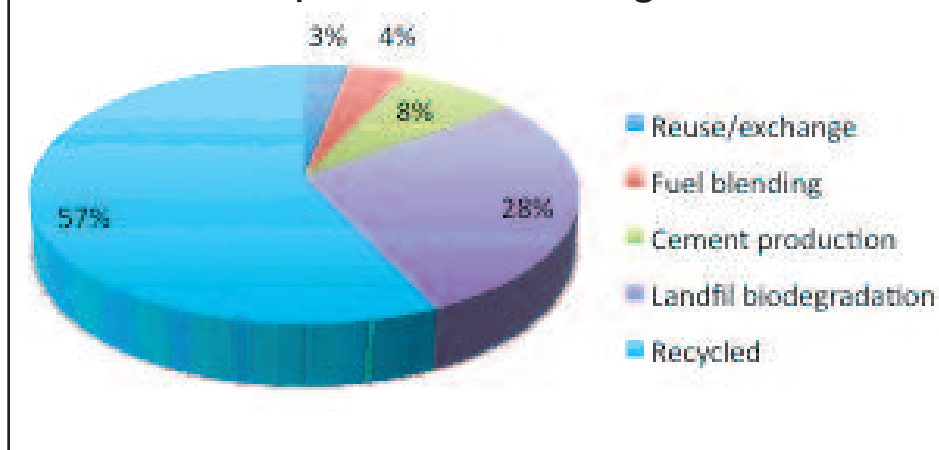
With the recent opening of Tillamook County's Household Hazardous Waste Disposal Facility, local residents may now conveniently participate in Oregon's ground-breaking paint recycling program.

July marked the first anniversary of the Paint Product Stewardship law that required makers of paint sold in Oregon to set up, run and pay for a statewide system for collecting leftover paint and recycling it or delivering it for energy recovery or safe disposal.

At that time, the Oregon Department of Environmental Quality estimated that more than 750 million gallons of latex and oil-based paints are sold in the United States each year. About 10 percent of that goes unused, DEQ said, and constitutes the largest part of household hazardous waste that is collected. Oregon's goal at the inception of the program was to reuse, recycle or safely dispose of 800,000 gallons of paint a year.

According to PaintCare, the non-profit organization that administers the program, 469,665 gallons of paint were collected in the first year of the program. Of the latex

Uses of latex paint collected in Oregon in 2010-11



paint collected, 3 percent went to "reuse/exchange," 57 percent was recycled, 8 percent went into cement production, 4 percent was used for fuel blending, and 28 percent was sent for landfill biodegradation. Of the alkyd or oil-based paints collected, 97 percent went for fuel blending and 3 percent for reuse, PaintCare officials said.

PaintCare has established 95 collection centers throughout the state – 80 of them are based in retail outlets including paint stores and Habitat for Humanity ReStores, and 15 are local government sites including transfer stations and hazardous waste facilities.

Officials describe retailers as in favor of the program because they see their par-

ticipation as giving them a competitive advantage. Consumers are said to feel they are doing the responsible thing by recycling their paint.

"We want to continue to increase our recycling rate and grow the amount of collection sites available to consumers throughout the state," said Alison Keane, executive director of PaintCare.

"Over 60 percent of paint is currently being recycled, but we think we can do better than that. In addition, we need to work with paint retailers to increase the education process at the point of purchase in order to get the message out about the program and the economic and environmental consequences of paint purchases."

One of PaintCare's short-term goals is to get similar legislation passed in Washington State so the program can be region wide.

California is scheduled to roll out a paint recycling program in July of 2012 and Connecticut will follow with its program in July 2013.

For more information about the PaintCare program, go online to www.paintcare.org.

Agencies hold drug collection day

Waste medication, including over-the-counter drugs and prescription pharmaceuticals were collected for safe disposal on Oct. 29, in coordination with the U.S. Drug Enforcement Agency's nationwide "Got Drugs?" campaign.

The event boasted three collection sites in Tillamook County. Early estimates indicate nearly 150 pounds of waste medications were collected at the Manzanita, Rockaway Beach and Tillamook sites.

During an event at the Tillamook County Fairgrounds last year, 72 pounds of pharmaceuticals were collected.

The event was conducted by county solid waste disposal officials along with narcotics officers from the Tillamook County Sheriff's Office.

Pharmaceutical wastes constitute a serious threat to human and animal health in the state. They are particularly harmful to aquatic life when they are flushed into wastewater treatment systems.







Flushing medications down the sink and toilet can result in contamination of our source water, impacting drinking water and fish populations.

The improper storage and disposal of pharmaceuticals can lead to serious public and environmental health and safety issues.

Access to unsecured or improperly stored medications can result in accidental poisonings, overdoses and illegal drug use.



Your Guide to Recycling in Tillamook County

	FACTS	HOW TO PREPARE FOR RECYCLING	WHERE TO TAKE IT
 <p>ALUMINUM</p>	<ul style="list-style-type: none"> ✓ Americans use over 200 million aluminum beverage cans a day. ✓ Using recycled aluminum uses 95 percent less energy. ✓ Aluminum cans can be recycled into new cans and back on store shelves in 60 days. 	<ul style="list-style-type: none"> ✓ Rinse. ✓ No other preparation required. 	City Sanitary Manzanita Transfer Station (CART [™] Recycling) Pacific City Transfer Station (Nestucca Valley Sanitary) Tillamook Transfer Station (Averill Recycling) "Redeemables" can be returned for deposit at all grocery stores in Tillamook County and are accepted as donation at Habitat for Humanity, 2610 Third St., Tillamook
 <p>STEEL CANS</p>	<ul style="list-style-type: none"> ✓ Most metal food containers are made of steel. ✓ Ferrous metals containing iron are attracted to a magnet. 	<ul style="list-style-type: none"> ✓ Rinse. ✓ Remove labels. 	City Sanitary Manzanita Transfer Station (CART [™] Recycling), Pacific City Transfer Station (Nestucca Valley Sanitary) Tillamook Transfer Station (Averill Recycling) Recycling Depots: Rockaway, Garibaldi, Bay City, Tillamook
 <p>PAPER</p>	<ul style="list-style-type: none"> ✓ Paper is the No. 1 material that we throw away; it makes up 35 percent of our waste by weight. ✓ One ton of paper made from recycled fibers instead of virgin fibers saves 7,000 gallons of water, 17-31 trees, 4,000 kWh of electricity, and 60 pounds of air pollutants. 	<ul style="list-style-type: none"> ✓ Anything that comes in the newspaper can be recycled with the newspaper. ✓ Shredded paper can be recycled with mixed paper. ✓ Cereal boxes, brown paper sacks, egg cartons, and other non-waxy cardboard packaging can be recycled with corrugated cardboard. ✓ Flatten boxes. 	Newsprint is accepted at the following: City Sanitary, Manzanita Transfer Station (CART [™] Recycling) Pacific City Transfer Station (Nestucca Valley Sanitary) Tillamook Transfer Station (Averill Recycling) Recycling Depots: Rockaway, Garibaldi, Bay City, Tillamook; Kiwanis Recycling Trailer at Les Schwab, 1220 Main St., Tillamook Magazines and catalogs are accepted at: Manzanita Transfer Station (CART [™] Recycling) Pacific City Transfer Station (Nestucca Valley Sanitary) Tillamook Transfer Station (Averill Recycling) Recycling Depots: Kiwanis Recycling Trailer at Les Schwab, 1220 Main St., Tillamook Mixed Paper is accepted at: Manzanita Transfer Station (CART [™] Recycling) Pacific City Transfer Station (Nestucca Valley Sanitary) Tillamook Transfer Station (Averill Recycling) Corrugated cardboard is accepted at: City Sanitary Manzanita Transfer Station (CART [™] Recycling) Pacific City Transfer Station (Nestucca Valley Sanitary) Tillamook Transfer Station (Averill Recycling)
 <p>PLASTIC</p>	<ul style="list-style-type: none"> ✓ Plastics are coded by material type, not recyclability or recycled content. ✓ By weight, plastics make up about 11 percent of America's municipal solid waste; 25 percent by volume. 	<ul style="list-style-type: none"> ✓ We recycle bottle-neck plastics #1-7; containers with a bottle-neck, regardless of plastic type. ✓ Remove lids. ✓ Rinse. 	City Sanitary Manzanita Transfer Station (CART [™] Recycling) Pacific City Transfer Station (Nestucca Valley Sanitary) Tillamook Transfer Station (Averill Recycling) "Redeemables" can be returned for deposit at all grocery stores in Tillamook County; also accepted as donation by Habitat for Humanity, 2610 Third St., Tillamook, and other local non-profit organizations. Other plastics such as food containers, butter and yogurt tubs, and rigid plastics are not readily recyclable in Tillamook County. Contact your recycling center for more information about what is accepted.
 <p>GLASS</p>	<ul style="list-style-type: none"> ✓ Glass containers are 100% recyclable. ✓ Recovered glass is the main ingredient in new glass containers. ✓ An estimated 80% of recovered glass containers are made into new glass bottles. 	<ul style="list-style-type: none"> ✓ Remove lids. ✓ Rinse. ✓ No need to remove labels. ✓ Sort glass by color - clear, green, or brown. 	City Sanitary Service Manzanita Transfer Station (CART [™] Recycling) Pacific City Transfer Station (Nestucca Valley Sanitary) Tillamook Transfer Station (Averill Recycling) Recycling Depots: Rockaway, Garibaldi, Bay City, Tillamook "Redeemables" can be returned for deposit at all grocery stores in Tillamook County.
 <p>ORGANICS</p>	<ul style="list-style-type: none"> ✓ Yard debris and food waste ("organics") make up approximately ¼ of the average household's waste. 		There is no food waste collection system available to the public. Backyard composting is a great way to reduce your waste and produce a fertile soil amendment. Composters are available for sale at the Tillamook County Public Works office. Call 503-842-3419 for more information. Yard debris (excluding grass clippings) is accepted for recycling at: Manzanita Transfer Station (CART [™] Recycling) Tillamook Transfer Station (Averill Recycling)
 <p>HOUSEHOLD HAZARDOUS WASTE</p>	Many products can hurt people, fish and wildlife. Never dispose of household toxics down the drain, on the ground, in a storm drain or garbage can.		Tillamook County residents can bring their household hazardous wastes to Tillamook County's Hazardous Waste Facility located at the Tillamook Transfer Station (1315 Ekloff Road) on the first Saturday of every month from 9 a.m. to 1 p.m. For additional information about hazardous waste collection, toxics reduction and hazardous waste prevention, contact Tillamook County Solid Waste Department.

For additional information on recycling in Tillamook County, please visit our website at www.co.tillamook.or.us/gov/solidwaste.

City Sanitary
 (Operated by City Sanitary Service)
 2303 11th Street, Tillamook
 (503) 842-6262
 Mon.-Fri., 8 a.m.-5 p.m.

Manzanita Transfer Station
 (Operated by Cart[™] Recycling)
 34995 Necarney Rd., Manzanita
 (503) 368-7764
 Thurs.-Sun, 10 a.m.-4 p.m.

Tillamook Transfer Station
 (Operated by Averill Recycling)
 1315 Ekloff Rd., Tillamook
 (503) 842-2431
 Open daily, 8 a.m.-4 p.m.

Pacific City Transfer Station
 (Operated by Nestucca Valley Sanitary)
 38255 Brooten Rd., Pacific City
 (503) 965-6898
 Fri.-Sat., 9 a.m.-4 p.m.