United States Department of Agriculture

Marketing and Regulatory Programs

Animal and Plant Health Inspection Service

Site Specific Environmental Assessment for Off Island Transfer Proposal to Transport Municipal Solid Waste from Hawaii to Columbia Ridge Landfill

Environmental Assessment
July 2008

Site Specific Environmental Assessment for Off Island Transfer Proposal to Transport Municipal Solid Waste from Hawaii to Columbia Ridge Landfill

Environmental Assessment
July 2008

Agency Contact:
Shannon Hamm
Assistant Deputy Administrator
Policy and Program Development
Animal Plant Health Inspection Service
U.S. Department of Agriculture
4700 River Rd. Unit 20
Riverdale, MD 20737

Table of Contents

I. Purpose and Need

The State of Hawaii has limited landfill space. The regulations governing the interstate transport of garbage (7 CFR 330.400 et. seq.) were amended in August 2006 to provide the State of Hawaii with an additional waste disposal option to move municipal solid waste (MSW) from Hawaii to the continental United States. The movement of MSW from Hawaii to the continental United States may only be approved after compliance agreements have been negotiated and signed between the U.S. Department of Agriculture (USDA)–Animal and Plant Health Inspection Service (APHIS) and the petitioners intending to move MSW. The regulations allow MSW from Hawaii to be moved to the continental United States if it is compressed, packaged, shipped, and disposed of in a manner that the APHIS Administrator determines is adequate to prevent the introduction or dissemination of plant pests. In addition, it is the responsibility of the petitioners to ensure that MSW is moved in compliance with all applicable laws for environmental protection.

APHIS received a petition from Off Island Transfer to transport 120,000 tons of MSW annually in plastic airtight bales from the state of Hawaii to Columbia Ridge Landfill in Gilliam County, Oregon by barge followed by truck or rail transportation.

APHIS has prepared a regional programmatic environmental assessment titled "Regional Movement of Plastic-baled Municipal Solid Waste from Hawaii to Washington, Oregon, and Idaho: Environmental Assessment, February 2008 (REA) (USDA, APHIS, 2008)." The REA evaluated the environmental effects of transporting baled MSW by tug boat and barge across the Pacific Ocean and up the Columbia River. This assessment included a general analysis of landfills that could accept MSW in the various states as well as an analysis of environmental effects of transportation via rail or truck from a port on the Columbia River to a MSW landfill. A Finding of No Significant Impact for the March 2008 REA was issued by USDA APHIS in June 2008. This environmental assessment is tiered to the REA and analyzes the site-specific environmental effects of Off Island Transfer's petition.

This site specific environmental assessment is being made available to the public for a 30-day public comment period and will be followed by a decision document that summarizes our final determination of the potential for environmental impacts associated with our action. This site specific environmental assessment is consistent with the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321 et. seq.), the Council on Environmental Quality (CEQ) NEPA regulations in 40 CFR parts 1500 through 1508, and APHIS' NEPA implementing procedures (Title 7 of the Code of Federal Regulations, Part 372) for the

purpose of evaluating how the proposed action, if implemented, may affect the quality of the human environment.

II. Alternatives

This environmental assessment analyzes two different alternatives: (1) the no action alternative and (2) the proposed action (preferred alternative). Under the no action alternative APHIS would deny the petition and would not allow Off Island Transport to move MSW from Hawaii to the Columbia Ridge Landfill. Under the proposed action, APHIS would enter into a compliance agreement with Off Island Transport for the movement of MSW from Hawaii to the Columbia Ridge Landfill.

A. No Action

Under the no action alternative, APHIS would not consider this request for movement of MSW from Hawaii to the Columbia Ridge Landfill. Hawaiian MSW could still be moved from Hawaii to the Roosevelt Regional Landfill in Washington State as analyzed under a previous environmental assessment (USDA, APHIS, 2006).

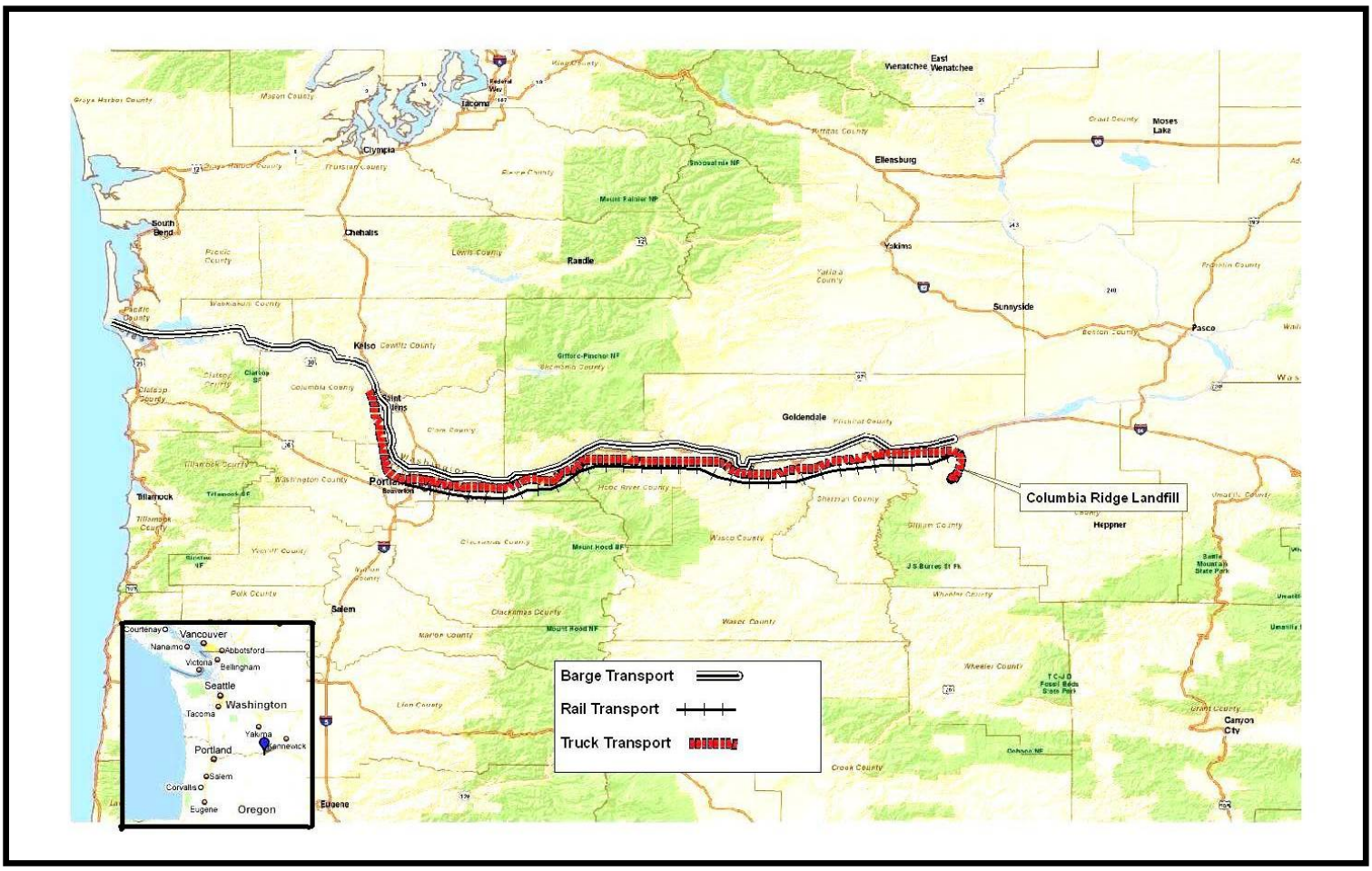
B. Proposed Action

Under the proposed action, APHIS would enter into a compliance agreement with Off Island Transport to allow for the movement of 120,000 tons of MSW annually from Hawaii to the Columbia Ridge Landfill. The proposed action is the preferred alternative. Under the proposed action, Off Island Transfer will:

- bale garbage at the Honolulu facility;
- place the bales in a staging area that includes an impervious substrate for at least 5 days;
- move the bales using tug boat and barge across the Pacific Ocean and up the Columbia River;
- offload bales at two potential locations:
    - The primary location for off loading will be the Willow Creek Barge Facility located at the Port of Arlington in Gilliam County, Oregon. From the Willow Creek Barge facility, baled MSW will be off loaded and trucked approximately 10 miles to the Columbia Ridge Landfill in Arlington, Oregon.
    - Under an alternative route, baled MSW will be off loaded at the Port of Rainier in Rainier, Oregon and will then be hauled either via truck or rail approximately 190 miles to Columbia Ridge Landfill; and

- all truck and rail routes will utilize existing highways and railways within the State (see Figure 1).

Figure 1. Transportation routes for Hawaiian MSW to the Columbia Ridge Landfill



III. Affected Environment

Gilliam County is located in northeast Oregon in the rain shadow of the Cascade Mountains. Mean annual precipitation in Gilliam County is approximately 15 inches and mean annual snowfall is approximately 18 inches. The mean daily maximum temperature is 58.7 degrees Fahrenheit and the mean daily minimum is 35.7 degrees Fahrenheit. Gilliam County is in the heart of the wheat growing region in the Columbia Plateau. The economy is based on agriculture, with wheat, barley and beef cattle being the primary products. The largest individual employers in the county are two subsidiaries of Waste Management that run two large regional landfills. As of the 2000 Census the population of Gilliam County was estimated at 1,915 people with most of the residents located in three incorporated municipalities; Arlington, Condon and Lonerock. The Columbia Ridge Landfill is located just outside of Arlington and is the primary employer in the region. As of the 2000 Census, Arlington supports a population of 524.

The primary proposed route for the disposal of baled MSW at Columbia Ridge Landfill includes barging the baled MSW 210 miles up the Columbia River to the Port of Arlington and then transloading the baled MSW to flatbed trucks to travel south on Oregon Route 19 approximately 10 miles south to Columbia Ridge Landfill (Figure 1). Oregon Route 19 travels south from its interchange with Interstate 84 in the Columbia River Gorge.

The alternate route that is proposed by the petitioners includes barging the baled MSW 52 nautical miles to a facility at Rainier, OR, near Portland, then transloading the baled MSW to flat railcars to travel approximately 130 miles by rail to the landfill. In the event that rail transport from Rainier is not available, the petitioners would load the baled MSW onto flatbed trucks and travel approximately 20 miles down Interstate 5 South to Interstate 205 South, and then to Interstate 84 east for approximately 130 miles. The primary highway that will be utilized for the alternate truck transport route for the disposal of MSW from Rainier, Oregon to Columbia Ridge Landfill is Interstate 84 (130 of 190 miles), the main east-west highway in the state (Figure 1). Interstate 84 is the longest numbered highway in Oregon's highway systems and runs along the Columbia River Gorge east of Portland and turning southeasterly and inland at Boardman and continues south through Pendleton some 375 miles until it reaches the border of Idaho near Ontario, Oregon. Constructed in 1957, the highway roughly follows the path of the historic Oregon Trail and is often referred to as the Old Oregon Trail Highway No. 6 and Columbia River Highway No. 2.

Columbia Ridge Landfill is the largest landfill in the Northwest and one of the ten largest in the United States with 750 acres, of which 260 acres are currently active. This area is surrounded by hills that are dotted by 365 foot tall white wind turbines. It is estimated that the Columbia Ridge Landfill's remaining life is approximately 112 years.

Columbia Ridge Landfill currently accepts over 6000 tons of MSW per day from various cities in Oregon, Washington, and Idaho. Portland alone trucks 89 loads (49 tons each) of MSW daily. In addition Seattle, Washington sends between 3500-4000 rail containers per month.

IV. Environmental Impacts

A. No Action

Under the no action alternative, APHIS would not allow for the movement of MSW from Hawaii to the Columbia Ridge Landfill by Off Island Transport. MSW may still be moved to Roosevelt Regional Landfill in Washington as analyzed under the environmental assessment entitled "Movement of Plastic Baled Waste from Honolulu, Hawaii to Roosevelt Regional Landfill, Washington" (USDA, APHIS, 2006). There would be no significant impacts to the environment if APHIS denied the request from Off Island Transport to move MSW from Hawaii to the Columbia Ridge Landfill.

However, Hawaii would not have an option to ship additional garbage that was not analyzed under the previous EA and would be limited to disposal of garbage to the Roosevelt Landfill in Washington State. The loss of this option may add to additional pressure to find a workable solution for the lack of landfill space in Hawaii, thus forcing either the very difficult attempt to try and open a new MSW landfill in Hawaii, the expansion of current landfills in Hawaii, or finding another alternative to landfilling (i.e., recycling, incineration, etc.).

B. Proposed Action

Under the proposed action (preferred alternative) APHIS would allow the movement of MSW from Hawaii to Columbia Ridge Landfill as outlined in the Off Island Transfer petition. The petitioners will sort the garbage and bale MSW in Honolulu Hawaii as analyzed in the REA. The bales will remain in a staging area on an impervious surface for at least 5 days as analyzed in the REA. The bales will then be transported from Honolulu across the Pacific Ocean and up the Columbia River via tug boat and barge in accordance with the conditions under the REA. Therefore, the environmental effects of the sorting, baling, and transportation across the

Pacific Ocean and up the Columbia River are consistent with the environmental effects analyzed in detail in the REA and thus are incorporated here by reference (USDA, APHIS, 2008). However, the REA only examined programmatically the potential train and truck routes. The site-specific route considered in this petition is examined further below.

As discussed above, the petitioners have a primary proposed route and an alternate route to transport waste by either train or truck. The transportation of baled garbage will occur by barge and over highways and railroads that are used everyday for a multitude of transportation needs.

If all the MSW (120,000 tons annually) is transported solely by rail this would add a total of 1071 rail cars a year[1]. In Oregon, 63.5 million tons of cargo was transported by rail to, from, within, and through the state in 1999 (ODOT, 2001). This translates into approximately 567,000 railcars per year. Based on this figure, the proposed transport of the annual tonnage of MSW by rail would result in a less than a 0.189 percent increase in the number of railcars per year in Oregon. Therefore, the environmental effects of the increase in rail cars due to the preferred alternative would be minimal.

If all of the MSW (120,000 tons annually) is transported solely by truck, the preferred alternative would increase truck traffic by 3,529 trucks annually[2]. In 1998, 220 million tons of freight was transported by highway in Oregon (USDOT, 2002) (approximately 6,470,588 truckloads). Based on these numbers, the increase in truck traffic is less than 0.054 percent increase of truck/highway freight traffic due to the preferred alternative. Therefore the environmental effects of the increase in truck transportation due to the preferred alternative would be minimal.

Columbia Ridge Landfill is an approved MSW facility permitted by the Environmental Protection Agency (EPA) in cooperation with the State of Oregon (see http://www.epa.gov/epaoswer/ non-hw/muncpl/landfill/ implemen/index.htm) pursuant to EPA's authority under subtitle D of the Resource Conservation and Recovery Act. As such, the landfill meets the Federal and State requirements to ensure that no further impacts to the environment are likely as a result of this action. In addition to Columbia Ridge Landfill's compliance with state and federal laws to minimize environmental impacts from MSW, the garbage from this action will be wrapped in bales, thus limiting any exposure of Hawaiian MSW to the Columbia Ridge Landfill itself.

---

[1] This is based on 112 tons per railcar. 120,000 tons of MSW / 112 tons per rail car = 1071 rail cars

[2] This is based on transport weight of 34 tons per truck. 120,000 tons of MSW / 34 tons per truck = 3,529 trucks.

The Columbia Ridge Landfill currently accepts over 6000 tons of MSW per day (a total of 2,275,889 tons of MSW in 2005) from various cities in Oregon, Washington, and Idaho (ODEQ, 2006). It is estimated that the Columbia Ridge Landfill's remaining life is approximately 112 years based on receiving 6000 tons per day. Oregon is the fifth largest importer of garbage in the country, importing a total of 1,560,042 tons of MSW in 2005. Seattle alone transports over 2 million tons of trash a year to the Columbia Ridge Landfill. The addition of 120,000 tons of MSW annually will result in a 5 percent increase in garbage annually to the landfill. This increase is unlikely to result in any environmental effects to the existing landfill. In addition to the fact that the 120,000 tons of Hawaii MSW represents a small fraction of the annual amount of MSW the landfill accepts, the garbage has been baled to prevent any leakage of MSW into the landfill.

Based on our review of the Off Island Transport's petition to move baled MSW from Hawaii to the Columbia Ridge Landfill in Arlington, Oregon, APHIS finds that the proposal is consistent with the REA and therefore the environmental effects have been analyzed under the REA (USDA, APHIS, 2008). APHIS has evaluated the proposal, and the site specific pest risk assessment (Attachment A) for the potential site specific environmental impacts of the proposed action, including the estimated number of truck and rail trips necessary to haul MSW along the proposed routes considered in this petition as well as the proposed increase in garbage to be disposed annually in the Columbia Ridge Landfill. Based on our evaluation in this site specific environmental assessment of the potential for environmental impacts from the proposed action, the proposed action will not result in a significant increase in traffic along the interstate or rail lines, will not result in a significant increase in garbage to be disposed annually in the Columbia Ridge Landfill, and will not cause impacts not previously considered in the REA.

C. Cumulative Effects

The REA considered the movement of 500,000 tons of baled MSW annually; here the petitioner is requesting to move 120,000 tons of MSW annually to the Columbia Ridge Landfill. The preferred alternative would not add any additional tug boat / barge trips since the petitioners have stated they will utilize already existing barges that would have been sent to the mainland empty. If all the MSW is transported solely by rail this would add a total of 1071 rail cars a year to rail freight traffic. If all the MSW is transported solely by truck, this would increase the truck traffic by 3529 trucks annually. The proposed action will result in an annual

increase of less than 0.189 percent of rail cars and less than 0.054 percent of truck traffic in the state of Oregon and therefore will have little, if any environmental impact. The 120,000 tons of MSW annual tonnage, approximately 330 tons per day, is minimal compared to the amount of garbage deposited in the landfill on an annual basis, approximately 2,275,889 tons annually or 6,000 tons per day. Thus, there should be minimal, if any, environmental impacts from the annual disposal of the proposed additional 120,000 tons of MSW at Columbia Ridge Landfill, since the landfill must comply with both EPA and Oregon state requirements for maintaining landfills in an environmentally safe manner. Therefore the proposed action will have negligible cumulative impacts on the environment.

D. Threatened and Endangered Species

The biological assessment Movement of Plastic-baled Garbage and Regulated (Domestic) Garbage from Hawaii to Landfills in Oregon, Idaho, and Washington. Final Biological Assessment (Attachment B) considered the potential impacts of the movement of baled garbage from Hawaii across the Pacific Ocean and up the Columbia River on aquatic and terrestrial wildlife and fishery resources and federally listed threatened and endangered species and designated critical habitat.

APHIS has completed consultation pursuant to section 7 of the Endangered Species Act with the U.S. Fish and Wildlife Service (see concurrence letter from Fish and Wildlife Service (Attachment B.1)) and the National Marine Fisheries Service (see concurrence letter from National Marine Fisheries Service (Attachment B.2)) on the potential impacts of the movement and disposal of baled MSW during its consideration of the total environmental impacts assessed in the REA. This petition and the associated compliance agreement are within the scope of the existing consultation and therefore no further consultation is required.

APHIS has evaluated the specific route considered in this petition including the number of barge, truck and rail trips necessary to intern the proposed 120,000 tons of baled MSW at Columbia Ridge Landfill. APHIS has also evaluated the potential impacts to federally listed species along those routes and determined the impacts associated with the movement and internment of baled MSW associated with this proposed action are consistent with the analysis completed for the REA and BA. All associated terms and conditions regarding the protection of listed species and sensitive habitats along these routes are incorporated in full into the compliance agreement for this action.

V. Listing of Agencies and Persons Consulted

Listed below are offices that were consulted and/or provided review during the development of this document.

U.S. Department of Agriculture
Animal Plant Health Inspection Service
Plant Protection and Quarantine
Riverdale, MD

U.S. Department of Agriculture
Animal Plant Health Inspection Service
Plant Protection and Quarantine
Western Region
Fort Collins, CO

U.S. Department of Agriculture
Animal Plant Health Inspection Service
Plant Protection and Quarantine
Washington, DC

U.S. Department of Agriculture
Animal Plant Health Inspection Service
Plant Protection and Quarantine
Honolulu, Hawaii

U.S. Department of Agriculture
Animal Plant Health Inspection Service
Plant Protection and Quarantine
Center for Plant Health Science and Technology
Raleigh, NC

U.S. Department of Agriculture
Animal Plant Health Inspection Service
Policy and Program Development
Riverdale, MD

U.S. Department of Agriculture
Office of General Counsel
Washington, DC

Columbia Basin Fish and Wildlife Authority
Portland, OR

VI. References

ODEQ – See Oregon Department of Environmental Quality

ODOT – See Oregon Department of Transportation

Oregon Department of Environmental Quality, 2006. 2005/2006 Disposal Status: Oregon DEQ 2006 Solid Waste Report to the Legislature, December 2006. 5 pages.

Oregon Department of Transportation, 2001. Oregon Rail Plan. 161 pages. http://www.oregon.gov/ODOT/RAIL/docs/railplan01.pdf *last accessed* July 10, 2008.

United States Department of Agriculture, Animal and Plant Health Inspection Service, 2006. Movement of Plastic Baled Waste from Honolulu, Hawaii to Roosevelt Regional Landfill, Washington, Environmental Assessment, December 2006. 79 pages.

United States Department of Agriculture, Animal and Plant Health Inspection Service, 2008. Regional Movement of Plastic-baled Municipal Solid Waste from Hawaii to Washington, Oregon, and Idaho: Environmental Assessment, April 2008. 78 pages.

United States Department of Transportation, Federal Highway Administration. 2002c. State Profile – Oregon: 1998, 2010, 2020 6 pp. http://ops.fhwa.dot.gov/freight/freight_analysis/state_info/oregon/profile_or.htm *last accessed* July 10, 2008.

USDA, APHIS – See United States Department of Agriculture, Animal and Plant Health Inspection Service

USDOT – See United States Department of Transportation, Federal Highway Administration