

CHAPTER SIX - DISPOSAL METHODS

Introduction:

This chapter reviews solid waste disposal methods available to Morrow County residents, businesses, institutions and local governments. The State refers to this last option in the solid waste hierarchy as residual disposal taking place after reduction and recovery efforts have been completed. This chapter will review municipal landfill disposal, clean fill disposal, commercial composting, other disposal methods, and land application of biosolids and industrial process water as the residual disposal methods currently used and available in Morrow County.

Municipal Landfill Disposal:

This section will focus on the ultimate handling and disposal of municipal solid wastes remaining after reduction, recycling and processing of solid waste in the region has been completed. Presently, Finley Buttes Landfill is the only permitted solid waste landfill in Morrow County. For the duration of this Management Plan, Finley Buttes Landfill will continue to be the exclusive Regional Disposal site to serve the municipal solid waste disposal needs of the County.

Other disposal options, including exportation of waste, incineration, new site development, etc., may be explored by the County Court in the case of either new technology development or the failure of the current system to adequately and efficiently manage solid waste disposal in the County. Absent such an occurrence, Morrow County intends to continue utilizing the current permitted landfill facility.

The landfill is designed to last at least 100 years, encapsulating the waste, layer by layer. Each day at the landfill, disposed solid waste is covered with soil or other Department of Environmental Quality approved cover material. When each cell area at the Landfill is full, it is covered with compacted clay and topsoil. At the end of the useful life of the Landfill, the site will be

Regulatory Requirements

The disposal of solid waste in Oregon must be conducted in accordance with ORS Chapter 459 and OAR Chapter 340, Divisions 93 through 97. The state rules were re-written in 1993 to conform with new federal standards for solid waste facilities, contained in 40 CFR, Part 258. These rules were developed to ensure a minimum level of environmental protection for solid waste landfills across the country.

Permits for solid waste disposal sites or facilities must also conform with the Morrow County Solid Waste Management Plan and implementing Ordinances including the Morrow County Solid Waste Management Ordinance. Permits are issued by the Morrow County Court which must interpret the Plan and determine whether or not a proposal is in conformance.

Landfill Existing Conditions

In July 1987, the County granted a Conditional Use Permit to Tidewater Barge Lines for development of Finley Buttes Landfill, a large regional municipal solid waste landfill. Finley Buttes Landfill is currently owned by Waste Connections, Inc. of Vancouver, Washington. The location of the Landfill is approximately 10 miles south of exit 168 on Interstate 84 and approximately one mile east of Bombing Range Road. The Landfill comprises 510 acres on an approximate 1800 acre tract. The Landfill site was chosen because both the geology of the area and semi-arid climate of Morrow County provide an ideal operational setting for such a large landfill.

closed, capped, and revegetated. The current plan is to return the closed Landfill to agricultural use consistent with the historic and current agricultural practices of the area. Post-closure care of the closed Landfill will include erosion control, weed control, regrading and drainage system maintenance, operation of any leachate and gas collection systems which have been

installed and continuation of all monitoring systems.

The Solid Waste Disposal Site Permit issued to Finley Buttes by the Department of Environmental Quality authorizes the facility to accept solid wastes as defined in ORS 459.005, except non-digested sewage sludges and septic tank pumpings, and free liquids other than those incidental free liquids associated with solid waste collection and transportation.

The Permit also authorizes the Landfill to accept waste tires which must be processed into tire chips before disposal. Salvaging and recycling are authorized at the Landfill site, as well as the acceptance of special wastes that have been approved as part of a Special Waste Management Plan by the Department of Environmental Quality.

A transfer station for receiving recyclable materials is also permitted and in operation at the entrance area to the Landfill. The Finley Buttes Landfill is expected to meet the municipal solid waste disposal needs of the County for the next 50 to 100 years.

As well as deliveries from local residents and collection services, the Landfill receives waste delivered by barges arriving at the Port of Morrow reload facility and from long-haul truck traffic arriving from regional sources coming up Bombing Range Road via the Interstate highway system. The Landfill employs 12 to 15 local residents and pays license and tippage fees to the County. Waste Connections, Inc. also contributes to a closure fund to support the eventual closure of the Landfill and a road fund to maintain the portion of Bombing Range Road from Interstate 84 to the Landfill.

The Future of Finley Buttes Landfill

As landfill technology evolves Waste Connections, Inc. can be expected to take advantage of profitable and up-to-date ventures using the Landfill as a resource. Possibilities include the harvest and sale of methane gas for power generation.

Landfill Disposal Recommendations

1. Continue to dispose of in-County solid waste at Finley Buttes Landfill.
2. Maintain the Solid Waste Advisory Committee (SWAC) to oversee the Landfill's activities and to monitor compliance with their Conditional Use Permit and agreements.
3. Encourage the Landfill to continue to import regional solid waste as well as continuing to be an active participant in solving County solid waste management issues.
4. Solid Waste Advisory Committee (SWAC) monitor the Landfill's activities associated with the operation of the Landfill in order to minimize the risks and maximize the benefits to the citizens of Morrow County.
5. Discourage permitting of other County landfills but remain supportive in providing solutions to inefficiencies, technological changes and system inadequacies in the County's solid waste management system.

Clean Fill:

We have all seen signs posted at construction sites advertising the need for "clean fill." We probably also gave it little thought. Clean fill material consists only of inert materials that do not have the potential to contaminate the land or waters of the State.

Regulatory Requirements

OAR 340-093 -0050(3)(c) exempts "clean fill" from regulation as a solid waste in a land disposal site used exclusively for the disposal of "clean fill," unless the materials have been contaminated such that the

Department of Environmental Quality determines that their nature, amount or location may create an adverse impact on The following “clean fill” materials may be landfilled without a permit from the Department of Environmental Quality:

- Clean Soil, but not soil contaminated by any hazardous constituent. Limited quantities of soil, which have been cleaned to level I cleanup standards and specifically approved by the Department of Environmental Quality may be accepted;
- Concrete, including that which contains reinforcing bar or rod;
- Rock and Brick; and
- Weathered and consolidated asphalt paving which does not show evidence of fresh oil and which is not so broken as to expose numerous unweathered surfaces.

Asphalt and other constraints:

While solid waste rules exempt some asphalt paving from a requirement to be disposed of in a permitted solid waste facility, that exemption does not apply to asphalt which has not been applied as paving and does not exempt asphalt paving which may pose a threat to the waters of the State or public health. Any asphalt which shows evidence of fresh oil or is not clearly weathered and consolidated does not qualify for the exemption and may not be placed as clean fill. Soil loads which contain fresh asphalt are not eligible for the clean fill exemption unless the asphalt is removed.

It is possible that land proposed for filling with clean fill may be or have become wetlands. The owner should obtain clearance from the Army Corps of Engineers or the Oregon Division of State Lands to ensure that filling is not taking place in a wetland.

Clean Fill in Morrow County

Issues concerning clean fill in Morrow County in the past have been mostly concerned with the confusion between construction and demolition waste and clean fill. For further clarity, “clean fill” does

groundwater, surface water or public health or safety.

not include putrescible wastes, construction and demolition wastes and industrial solid wastes.

Clean Fill Recommendation

1. Local governments should authorize proposed clean fill sites so citizens and businesses are assured that the operation is in compliance with local and State regulations, particularly having to do with wetlands.

Commercial Composting Facilities:

This section discusses composting facilities on a large or commercial scale. Household or residential composting is discussed in Chapter Four. Generally, large-scale composting facilities in the County are agricultural operations composting animal wastes, but these operations may also compost food waste, yard debris, or other feedstocks collected from municipalities and industry.

Commercial composting in Morrow County mainly takes place to process animal waste produced at large scale dairy operations. County concerns regarding commercial composting facilities have to do with balancing public interests with economic growth, air and water quality, pathogens and other contaminant issues.

Regulatory Requirements

The Department of Environmental Quality along with the Department of Agriculture are currently in the process of revising compost facility rules. The current composting registration and permit requirements are based on the scale and type of feedstocks (wastes) used for composting operations. Generally, the mix and amount of green feedstock, non-green feedstock and other ingredients, such as yard debris and wood waste, will trigger different permits designed to mitigate for air and water quality concerns as well as pathogen and contaminant concerns.

Commercial Composting Facilities in Morrow County

Morrow County has three large dairies operating under two CAFO (confined animal feeding operation) permits granted by the Department of Agriculture. The cows being maintained under these two permits number more than 84,000. Part of the manure waste generated by these dairies is processed by two composting facilities.

The smaller of the two, Columbia River Dairies, is managed under the CAFO permit of Willow Creek Dairy and all of the composted manure waste generated by their 14,400 cows is re-used for bedding.

The other, larger composting facility, which is located on an approximate 433 acre parcel taking up about 120 acres just south of Columbia River Dairies, is operated by Threemile Canyon Farms and is permitted by the Department of Environmental Quality as a Full Composting Facility. It processes the waste generated by the other 71,000 cows plus waste from other Department of Environmental Quality approved feedstocks.

As currently permitted, it is the largest composting/waste treatment facility in the state. The manure waste from the Threemile Canyon Farms dairies is composted into a product used by Threemile Canyon Farm for animal bedding needs, in its own farming operations, including organic operations, and sold in a five state region to plant nurseries.

Commercial Composting Facilities Recommendation

1. As a jurisdiction with extensive solid waste/commercial composting exposure, the County needs to stay informed and participate with current and on-going rule making at the State level. Local land use regulations for commercial composting facilities must reflect the most up-to-date knowledge about

commercial composting, environmental and local concerns.

Other Disposal Methods:

Disposal methods discussed in this section are included within the disposal site definition in Chapter Two but are not discussed elsewhere in this Plan. They are non-municipal land disposal sites which can include a range of facilities that store, receive, process, or landfill any non-municipal waste including woodwaste, industrial waste, and construction and demolition waste. The types of facilities include energy recovery facilities, incinerators receiving solid waste from the public or a collection service, and captive industrial facilities where the owner/operator of the site is also the generator of all the solid waste managed at the site. Each of these disposal site facilities are a type which requires a permit from the Oregon Department of Environmental Quality.

Regulatory Requirements

The Department of Environmental Quality requires a permit for each facility depending upon the type of facility and volume of material handled. The following are the supplemental requirements for such a permit:

- Land Use Compatibility Statement signed by the local land use authority;
- Evidence of need;
- Evidence of compatibility with the local waste management plan;
- A Site Characterization Report;
- Detailed plans and specifications;
- A recommendation from the local government; and
- Depending on the type of facility to be constructed, other information will also be requested.

The Department of Environmental Quality will post a 30-day public notice inviting the public to comment on the proposed permit. If the public shows significant interest, a

hearing will be held. Each application for a disposal site permit must comply with the criteria in Oregon Administrative Rules Chapter 340, Divisions 93 through 97.

Other Disposal Methods in Morrow County

An energy recovery facility exists at the old Kinzua mill site near Heppner. In the past, it has burned wood waste to generate electricity. Portland General Electric (PGE) Boardman Coal Fire Plant operates as a captive industrial facility. It has an approved ash monofill permitted with a Water Pollution Control Facilities Permit issued by the Department of Environmental Quality.

Recommendations

1. The County should, at a minimum, require land use and solid waste approval before a County Recommendation be forwarded to the Department of Environmental Quality for permit approval.
2. Applications for a non-municipal disposal site should be reviewed by the County to make sure that the owner or operator does not impact a floodplain or wetland. Ground water monitoring should be conducted in accordance with State requirements.

Land Application of Biosolids and Industrial Process Water:

According to the State of Oregon, reclaimed water, agricultural or, industrial process water, or biosolids destined for land application are not defined as solid waste, per se. The Environmental Quality Commission calls these products recyclable materials and encourages the land application of such substances. When managed in a manner prescribed by the Department of Environmental Quality permitting procedures, land application improves soil tilth, fertility and stability and its use enhances the growth of agricultural, silvicultural and horticultural crops.

Morrow County acknowledges the above State policy but has also chosen to address biosolids in this Solid Waste Management Plan. Industrial process water, such as the

Criteria include location restrictions, design and operating requirements, and closure and post-closure requirements.

process water land applied as a product of the food processing entities on Port of Morrow property, is introduced in this chapter but will be discussed in a future County plan within the context of water quality.

Regulatory Requirements

The State regulations concerning land application are ORS 215.246, Approval of Land Application of Biosolids, and OAR 340 Division 50, Land Application of Domestic Wastewater Treatment Facility Biosolids, Biosolids Derived Products, and Domestic Septage.

Subject to issuance of a permit or approval by the Department of Environmental Quality, land application of industrial process water, reclaimed water and biosolids is an allowed use on EFU zoned land as long as it is applied at “agronomic rates” which apply soil nutrients to match the nutrient requirements for specific crops on an annual basis. As such, counties may not impose additional land use restrictions or conditions on land application practices beyond those specified in State statutes. Additionally, when biosolids are transported for land application on EFU land via a vehicle, it is not a land use decision and may not be regulated by the local governmental entity. A Department of Environmental Quality Land Use Compatibility Statement (LUCS) is also not required.

When an applicant wishes to apply biosolids on County land and it will not be transported to the land via vehicle, the County may make a land use decision to allow the use. The applicant is required to obtain a license, permit or approval by the Department of Environmental Quality and the applicant must explain to the County how alternatives to the land application were considered. The County then conducts a land use review. The review must insure that the establishment and use of the land

application facilities are related only to the land application applied for, that there are no utility facility service lines on the site, and

Land Application in Morrow County

Land application of biosolids trucked in from outside Morrow County occurs on at least one tract of regular farming ground in the northern portion of the County. The Cities of Boardman and Heppner land apply treated waste water and sewage sludge under Department of Environmental Quality permits near their boundaries.

The application of industrial process water occurs on more than 4,800 acres of land in Morrow County. It occurs mainly as land application of industrial waste water generated at the Port of Morrow by various food processing industries such as Columbia River Processing (cheese), Boardman Foods (onions) and Lamb Weston (potatoes). At the Port of Morrow the waste water is pumped to their 67 fields and applied via circle irrigation units. The Port maintains a 175 million gallon holding pond for winter storage during times it is not possible to irrigate.

The County is aware that land application of industrial and municipal wastewater and sewage is applied to land already designated as groundwater quality monitoring areas. The County is also aware that land application may carry nitrate contamination risk implications for Morrow County citizens. There is an ongoing Lower Umatilla Basin Groundwater Management Area (LUB GWMA) citizens advisory committee working toward solutions to groundwater quality issues in the County and regional area.

Recommendations

1. Continue to work with the citizens advisory committee on the public awareness program for nitrate contamination potential in the LUB GWMA area.
2. Per Oregon Administrative Rule, work with holders of State land application permits in Morrow

that the land was not divided or partitioned for the purpose of land application.

County in order to maximize the benefits and minimize groundwater contamination risks from land application.

3. Encourage the Department of Environmental Quality to continue monitoring and enforcement of land application permits that exist within the County jurisdiction.

--- Revision List ---

Location is Old Page:Old Paragraph New Page:New Paragraph.

Paragraph numbers shown as zero refer to the part of a paragraph that is carried over from the previous page. The {Hrt/Hpg/Tab/Spc} codes are generic symbols which refer to categories of end-of-line, tab/indent, or space codes.

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