State of Oregon
Department of Environmental Quality Memorandum

Date: April 7, 2010

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda item P, Rule adoption: Beneficial use of solid waste
April 29 -30, 2010 EQC meeting

Why this is Important

Finding ways to beneficially use solid waste is an important step towards conserving resources, reducing demand for disposal facilities and promoting sustainability.

These proposed rules will establish criteria and procedures for DEQ to approve the beneficial use of solid waste that would otherwise be disposed of at a permitted facility. The rules will authorize certain "standing" beneficial uses of solid waste, and also provide a clear process for DEQ to approve other beneficial uses of solid waste.

DEQ recommendation and EQC motion

The Department of Environmental Quality recommends that the Oregon Environmental Quality Commission adopt the proposed rules for the beneficial use of solid waste as presented in attachment A.

Background and need for rulemaking

DEQ receives requests for approval to use solid wastes that result from manufacturing, construction and demolition, and other processes. Some examples are:

- Spent foundry sand from the steel industry used as a substitute for virgin sand in making concrete;
- Dredged sediments from port maintenance dredging projects used for fill material on upland construction sites; and
- Scrap asphalt roofing shingles ground up and used as a component of hot-mix asphalt for road projects.

Currently, DEQ does not have a defined process for responding to or approving these types of requests. Oregon Administrative Rules chapter 340, divisions 93 through 97 only prescribe requirements for storage, collection, transportation, treatment, and disposal of solid waste - not for the use of solid waste. Under existing rules, DEQ can exempt solid wastes that are "substantially the same as clean fill" from disposal permit requirements or can issue Solid Waste Letter Authorizations for disposal. However, many materials do not meet clean fill criteria, and the letter authorizations are a one-time, six-month duration disposal permit that does not work for approving ongoing beneficial uses of solid waste. As a result, industry is concerned that DEQ's ability to review and approve solid

waste uses is very limited, time-consuming and often uncertain. In addition, stakeholders have indicated that both the stigma attached to "solid waste" and the lack of a defined regulatory approval process inhibits their ability to market these materials and connect with businesses that might be able to use their wastes.

DEQ anticipates that these rules will spark industry creativity and encourage changes in industrial processes so that secondary materials contain fewer toxics and can be more readily used for other purposes.

Effect of rule

The following will be added to Oregon Administrative Rules (OAR):

- 340-093-0030 (1), (12), (13), and (80) Definitions for acceptable risk level, beneficial use, beneficial use determination, and sensitive environment
- 340-093-0260 Beneficial Use of Solid Waste
- 340-093-0270 Standing Beneficial Use Determinations
- 340-093-0280 Case-Specific Beneficial Use Performance Criteria
- 340-093-0290 Case-Specific Beneficial Use Review Procedures
- 340-097-0120(2)(f) Beneficial use of solid waste application and reporting fees

<u>Definitions and performance criteria</u>

The proposed rules define the beneficial use of solid waste to mean "…the productive use of solid waste in a manner that will not create an adverse impact to public health, safety, welfare, or the environment."

The characteristic that distinguishes beneficial uses from permitted disposal is that beneficial uses are productive. Saving the cost of disposal and keeping materials out of landfills alone do not constitute a productive use. The rules list criteria for what is productive, including:

- There is an identified or reasonably likely use for the material that is not speculative;
- The use must be a valuable part of a manufacturing process, or an effective substitute for a valuable raw material; and
- The use is in accordance with applicable engineering standards, commercial standards, and agricultural or horticultural practices.

In addition to being productive, the use must not create an adverse impact to the environment. Determining whether there is a potential for adverse impacts is based in part on the use not exceeding "acceptable risk levels" as currently defined by reference to OAR 340-122-0115(1) of the Hazardous Substance Remedial Action Rules. Those rules set standards for acceptable human health and ecological risk. Beneficial uses must not result in the increase of a hazardous substance to a sensitive environment, nor create objectionable odors, dust, unsightliness, fire or other nuisance conditions.

<u>Standing beneficial use determinations</u>

DEQ has reviewed information from a number of states that have lists of permit exemptions or "standing" beneficial use determinations. Often the wastes are related to long-standing industries that generate large volumes of material such as foundry slag and coal ash. DEQ has proposed a table of standing beneficial uses based on experiences in Oregon. The listed standing beneficial uses are wastes in which the potential for adverse impacts to the environment can be readily addressed by restricting the type of authorized waste and specifying conditions on use in the rules. Two examples are asphalt grindings from road projects used in new pavement and wood boiler ash used as aggregate in asphalt or concrete.

Standing beneficial use determinations are a streamlining component of the proposed rules. If the rules are adopted, people applying a standing beneficial use will not have to contact DEQ's Solid Waste Program for approval or pay fees. If DEQ requests, they must provide information that demonstrates their waste and uses comply with the rules. The exceptions to this are for wastes that are applied in bulk to the land, such as using dredge sediments for construction fill. For these uses, people using the waste must report annually to DEQ on the type of waste and how and where it was beneficially used to ensure that the uses are consistent with local designated land uses.

Case-specific beneficial use determinations

For materials that do not have standing beneficial uses, the proposed rules include performance criteria and a process for DEQ to review and approve uses by issuing beneficial use determinations. These "case-specific" beneficial use determinations will be appropriate for new proposals or wastes and intended uses that are more complex.

Enforcement

There are no new provisions for enforcement of the proposed rules. If DEQ determines that a person is using solid waste in a manner that is not in compliance with the beneficial use rules, DEQ will regulate the material as solid waste and take appropriate enforcement action in accordance with existing solid waste rules.

Fees

There are no fees for standing beneficial uses, except for those wastes that involve land application and require annual reporting. For these there is a proposed $250 annual reporting fee to cover DEQ staff time to review the reports. There are proposed fees for case-specific beneficial use applications. Those fees were estimated based on the time it will take staff to review the applications and are set at $1000 for a Tier One application, $2000 for a Tier Two application, and $5000 for a Tier Three application. These tiers reflect the different criteria and complexity of proposed beneficial uses as DEQ anticipates a broad range in the types of waste, proposed uses, and therefore the time necessary to review and approve the applications. A single fee would likely be too high for some

applications and too low for others.

Commission authority

The commission has authority to take this action under ORS 459.045, Solid Waste Management.

Stakeholder involvement

In August 2008, DEQ held an initial meeting regarding the beneficial use of solid waste to help evaluate stakeholder interest in beneficial use rulemaking. The attendees included representatives from the steel and wood products industries, the Port of Portland, Oregon Department of Transportation, the Oregon Refuse and Recycling Association and Zero Waste Alliance. The first meeting helped DEQ identify a number of specific concerns that could be addressed through rulemaking, including the development of a working definition for beneficial use of solid waste. Given the range of different waste types as well as different uses and potential stakeholders, DEQ did not try to identify and convene a formal advisory group; rather, the agency continued to hold open meetings to give any interested parties the opportunity to engage in the rulemaking process. Based on subsequent meetings, written comments, email, and telephone correspondence with stakeholders over the next few months, DEQ prepared two drafts of the proposed rules for stakeholder review before formal public comment. DEQ established a website and e-mail list to provide notices on the rulemaking to interested parties. There are currently over 1,500 subscribers.

Most stakeholders have consistently supported the concept and need for this rulemaking. In general, they have provided comments to ensure that the rules do not alter the existing definition of solid waste, undermine existing solid waste rules, or inhibit legitimate recycling and provide a clearly defined process that will enable them to address specific wastes.

Public comment

A public comment period extended from Oct. 15, 2009 to Nov. 24, 2009 and included public hearings in Bend, Eugene and Portland. No one offered comments at the hearings. A summary of the written public comments and DEQ's responses is provided in attachment B. DEQ revised portions of the proposed rules to address internal and external comments.

Key issues

<u>Scope of the rules</u>

Early on in the rulemaking some stakeholders were concerned that the rules would inhibit legitimate, ongoing uses of industrial materials by increasing regulation. Some states that have beneficial use programs require that all beneficial uses of solid waste be approved by the state; the proposed rules do not. DEQ recognizes that there are common industrial by-products that are responsibly used, processed or sold for other uses, and some of these may be defined as solid waste. Historically, if the materials and the way in which they are commonly managed do not pose a significant risk to human health or the environment, DEQ's Solid Waste Program has not actively regulated them. In the same spirit, the proposed

rules are designed to provide a new option for solid waste management, and not to impose additional requirements on current practices that do not pose a threat to human health or the environment.

Policy decision on allowing some level of hazardous substances

To date, one of the biggest challenges DEQ has faced in reviewing proposed beneficial uses of solid waste is not having established criteria for evaluating potential environmental impacts due to toxic or hazardous substances in the waste. To address this issue, the proposed rules cite current acceptable risk levels in the Hazardous Substance Remedial Action Rules. The consideration of persistence, potential bioaccumulation and naturally occurring background concentrations are also included in the rules as performance criteria. By using acceptable risk levels, DEQ can allow solid wastes such as foundry sand or dredged materials to be used as fill material or other uses as long as the hazardous substance concentrations are below acceptable risk levels for human health and the environment. This is a risk management decision that balances allowing the use of solid wastes with relatively low concentrations of hazardous substances against the environmental benefits of resource recovery.

Dredged sediment management

DEQ attempted to address upland placement of dredged sediment through rulemaking in 2002 and guidance in 2006. Those efforts were not successful largely because stakeholders could not agree on appropriate screening criteria. The proposed beneficial use rules allow five different options for upland management of dredged materials. The options are based on water quality in-water screening criteria, upland risk-based screening for hazardous substances and restrictions on how the material can be used. The proposed rules offer flexibility in a way that has addressed stakeholder concerns.

When a waste is no longer regulated as solid waste

The proposed rules apply to the materials that are defined as solid waste and are subject to permitting and other requirements of the solid waste statutes and rules. However, stakeholders have indicated that the stigma attached to "solid waste" inhibits their ability to find uses for their waste. To address this concern, the proposed rules provide that a solid waste managed in accordance with a beneficial use determination will not be regulated as solid waste. In most cases, this will mean that from the point of generation through final use, although still defined as solid waste, a material will not be subject to other requirements of the solid waste rules as long as it is managed in accordance with a beneficial use determination.

Next steps

The proposed effective date for the rules is upon adoption and subsequent filing with the Secretary of State.

Once the rules are adopted, existing regional solid waste staff will implement the

rules with support from the Solid Waste Program at headquarters. Solid waste staff will prepare an application form for case-specific beneficial use reviews and develop a method to post case-specific beneficial use determinations on the web for public access. DEQ will look for opportunities at conferences and other venues for outreach to stakeholders and citizens. Staff will develop guidance to implement the rules as needed and as resources allow. DEQ has prepared a rule implementation plan that is available upon request.

Attachments

A. Proposed rule revisions
B. Summary of public comments and agency responses
C. Presiding officer's report on public hearings
D. Relationship to federal requirements questions
E. Statement of Need and Fiscal and Economic Impact
F. Land Use Evaluation Statement

Available Upon Request

1. Summary of the basis for standing beneficial use determinations
2. Rule implementation plan

Approved:

Division: _____

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DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 93

SOLID WASTE: GENERAL PROVISIONS

340-093-0030

Definitions

As used in OAR chapter 340, divisions 93, 94, 95, 96 and 97 unless otherwise specified:

(1) "Acceptable Risk Level" means a risk level defined in OAR 340-122-0115(1) of the Hazardous Substance Remedial Action Rules.

(~~1~~2) "Access Road" means any road owned or controlled by the disposal site owner that terminates at the disposal site and that provides access for users between the disposal site entrance and a public road.

(~~2~~3) "Agricultural Waste" means waste on farms resulting from the raising or growing of plants and animals including but not limited to crop residue, manure, animal bedding, and carcasses of dead animals.

(~~3~~4) "Agricultural Composting" means composting conducted by an agricultural operation (as defined in ORS 467.120(2)(a) on lands used for farming (as defined in ORS 215.203).

(~~4~~5) "Agronomic Application Rate" means land application of no more than the optimum quantity per acre of compost, sludge or other materials. In no case may such application adversely impact the waters of the state. Such application must be designed to:

(a) Provide the amount of nutrient, usually nitrogen, needed by crops or other plantings, to prevent controllable loss of nutrients to the environment;

(b) Condition and improve the soil comparable to that attained by commonly used soil amendments; or

(c) Adjust soil pH to desired levels.

(~~5~~6) "Airport" means any area recognized by the Oregon Department of Transportation, Aeronautics Division, for the landing and taking-off of aircraft which is normally open to the public for such use without prior permission.

(~~6~~7) "Aquifer" means a geologic formation, group of formations or portion of a formation capable of yielding usable quantities of groundwater to wells or springs.

(~~7~~8) "Asphalt paving" means asphalt which has been applied to the land to form a street, road, path, parking lot, highway, or similar paved surface and that is weathered, consolidated, and does not contain visual evidence of fresh oil.

(~~8~~9) "Assets" means all existing and probable future economic benefits obtained or controlled by a particular entity.

(~~9~~10) "Baling" means a volume reduction technique whereby solid waste is compressed into bales for final disposal.

(11~~0~~) "Base Flood" means a flood that has a one percent or greater chance of recurring in any year or a flood of a magnitude equaled or exceeded once in 100 years on the average of a significantly long period.

(12) "Beneficial Use" means the productive use of solid waste in a manner that will not create an adverse impact to public health, safety, welfare, or the environment.

(13) "Beneficial Use Determination" means the approval of a beneficial use of a solid waste pursuant to OAR 340-093-0260 through 340-093-0290 either as a standing beneficial use or as a case-specific authorization.

(14~~1~~) "Biological Waste" means blood and blood products, excretions, exudates, secretions, suctionings and other body fluids that cannot be directly discarded into a municipal sewer system, and waste materials saturated with blood or body fluids, but does not include diapers soiled with urine or feces.

(15~~2~~) "Biosolids" means solids derived from primary, secondary or advanced treatment of domestic wastewater which have been treated through one or more controlled processes that significantly reduce pathogens and reduce volatile solids or chemically stabilize solids to the extent that they do not attract vectors.

(16~~3~~) "Clean Fill" means material consisting of soil, rock, concrete, brick, building block, tile or asphalt paving, which do not contain contaminants which could adversely impact the waters of the State or public health. This term does not include putrescible wastes, construction and demolition wastes and industrial solid wastes.

(17~~4~~) "Cleanup Materials Contaminated by Hazardous Substances" means contaminated materials from the cleanup of releases of hazardous substances into the environment, and which are not hazardous wastes as defined by ORS 466.005.

(185) "Closure Permit" means a document issued by the department bearing the signature of the Director or his/her authorized representative which by its conditions authorizes the permittee to complete active operations and requires the permittee to properly close a land disposal site and maintain and monitor the site after closure for a period of time specified by the department.

(196) "Commercial Solid Waste" means solid waste generated by stores, offices, including manufacturing and industry offices, restaurants, warehouses, schools, colleges, universities, hospitals, and other non-manufacturing entities, but does not include solid waste from manufacturing activities. Solid waste from business, manufacturing or processing activities in residential dwellings is also not included.

(2017) "Commission" means the Environmental Quality Commission or the Commission's authorized designee.

(218) "Composted material" is the product resulting from the composting process.

(2219) "Composting" means the managed process of controlled biological decomposition of feedstocks. A managed process includes but is not limited to reducing particle size, adding moisture, manipulating piles, and performing procedures to achieve human pathogen reduction.

(230) "Composting Facility" means a site or facility composting feedstocks to produce a useful product through a managed process of controlled biological decomposition.. Sites and facilities that use methods such as vermiculture, vermicomposting and agricultural composting to produce a useful product are also considered composting facilities.

(241) "Construction and Demolition Waste" means solid waste resulting from the construction, repair, or demolition of buildings, roads and other structures, and debris from the clearing of land, but does not include clean fill when separated from other construction and demolition wastes and used as fill materials or otherwise land disposed. Such waste typically consists of materials including concrete, bricks, bituminous concrete, asphalt paving, untreated or chemically treated wood, glass, masonry, roofing, siding, plaster; and soils, rock, stumps, boulders, brush and other similar material. This term does not include industrial solid waste and municipal solid waste generated in residential or commercial activities associated with construction and demolition activities.

(252) "Construction and Demolition Landfill" means a landfill that receives only construction and demolition waste.

(263) "Corrective Action" means action required by the department to remediate a release of constituents above the levels specified in 40 CFR§258.56 or OAR chapter 340 division 40, whichever is more stringent.

(274) "Cover Material" means soil or other suitable material approved by the department that is placed over the top and side slopes of solid wastes in a landfill.

(285) "Cultures and Stocks" means etiologic agents and associated biologicals, including specimen cultures and dishes and devices used to transfer, inoculate and mix cultures, wastes from production of biologicals, and serums and discarded live and attenuated vaccines. "Culture" does not include throat and urine cultures.

(296) "Current Assets" means cash or other assets or resources commonly identified as those that are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

(3027) "Current Liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

(3128) "Department" means the Department of Environmental Quality.

(329) "Digested Sewage Sludge" means the concentrated sewage sludge that has decomposed under controlled conditions of pH, temperature and mixing in a digester tank.

(330) "Director" means the Director of the Department of Environmental Quality or the Director's authorized designee.

(341) "Disposal Site" means land and facilities used for the disposal, handling, treatment or transfer of or energy recovery, material recovery and recycling from solid wastes, including but not limited to dumps, landfills, sludge lagoons, sludge treatment facilities, disposal sites for septic tank pumping or cesspool cleaning service, land application units (except as exempted by subsection (81)(b) of this rule), transfer stations, energy recovery facilities, incinerators for solid waste delivered by the public or by a collection service, composting facilities and land and facilities previously used for solid waste disposal at a land disposal site; but the term does not include a facility authorized by a permit issued under ORS 466.005 to 466.385 to store, treat or dispose of both hazardous waste and solid waste; a facility subject to the permit requirements of ORS 468B.050; a site that is used by the owner or person in control of the premises to dispose of soil, rock, concrete or other similar non-decomposable material, unless the site is used by the public either directly or through a collection service; or a site operated by a wrecker issued a certificate under ORS 822.110.

(352) "Domestic Solid Waste" includes, but is not limited to, residential (including single and multiple residences), commercial and institutional wastes, as defined in ORS 459A.100; but the term does not include:

(a) Sewage sludge or septic tank and cesspool pumpings;

(b) Building demolition or construction wastes and land clearing debris, if delivered to a disposal site that is limited to those purposes and does not receive other domestic or industrial solid wastes;

(c) Industrial waste going to an industrial waste facility; or

(d) Waste received at an ash monofill from an energy recovery facility.

(363) "Endangered or Threatened Species" means any species listed as such pursuant to Section 4 of the federal Endangered Species Act and any other species so listed by the Oregon Department of Fish and Wildlife.

(374) "Energy Recovery" means recovery in which all or a part of the solid waste materials are processed to use the heat content, or other forms of energy, of or from the material.

(385) "Feedstock" means organic and other solid wastes used in a composting process to produce composted material:

(a) Type 1 feedstocks include source-separated yard and garden wastes, wood wastes, agricultural crop residues, wax-coated cardboard, vegetative food wastes including department approved industrially produced vegetative food waste, and other materials the department determines pose a low level of risk from hazardous substances, physical contaminants and human pathogens.

(b) Type 2 feedstocks include manure and bedding and other materials the department determines pose a low level of risk from hazardous substances and physical contaminants and a higher level of risk from human pathogens compared to type 1 feedstock.

(c) Type 3 feedstocks include dead animals, meat and source-separated mixed food waste and industrially produced non-vegetative food waste. They also include other materials the department determines pose a low level of risk from hazardous substances and a higher level of risk from physical contaminants and human pathogens compared to type 1 and 2 feedstocks.

(396) "Financial Assurance" means a plan for setting aside financial resources or otherwise assuring that adequate funds are available to properly close and to maintain and monitor a disposal site after the site is closed according to the requirements of a permit issued by the department.

(4037) "Floodplain" means the lowland and relatively flat areas adjoining inland and coastal waters that are inundated by the base flood.

(4138) "Gravel Pit" means an excavation in an alluvial area from which sand or gravel has been or is being mined.

(4239) "Groundwater" means water that occurs beneath the land surface in the zone(s) of saturation.

(430) "Hazardous Substance" means any substance defined as a hazardous substance pursuant to Section 101(14) of the federal Comprehensive Environmental Response, Compensation and

Liability Act, as amended, 42 U.S.C. 9601 et seq.; oil, as defined in ORS 465.200; and any substance designated by the Commission under ORS 465.400.

(44~~1~~) "Hazardous Waste" means discarded, useless or unwanted materials or residues and other wastes that are defined as hazardous waste pursuant to ORS 466.005.

(45~~2~~) "Heat-Treated" means a process of drying or treating sewage sludge where there is an exposure of all portions of the sludge to high temperatures for a sufficient time to kill all pathogenic organisms.

(46~~3~~) "Home composting" means composting operated and controlled by the owner or person in control of a single or multiple family dwelling unit and used to compost residential food waste produced within the dwelling unit and yard debris produced on the property.

(47~~4~~) "Incinerator" means any device used for the reduction of combustible solid wastes by burning under conditions of controlled airflow and temperature.

(48~~5~~) "Industrial Solid Waste" means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under ORS chapters 465 and 466 or under Subtitle C of the federal Resource Conservation and Recovery Act. Such waste may include, but is not limited to, waste resulting from the following processes: Electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay and concrete products; textile manufacturing; transportation equipment; water treatment; and timber products manufacturing. This term does not include construction/demolition waste; municipal solid waste from manufacturing or industrial facilities such as office or "lunch room" waste; or packaging material for products delivered to the generator.

(49~~6~~) "Industrial Waste Landfill" means a landfill that receives only a specific type or combination of industrial waste.

(50~~47~~) "Inert" means containing only constituents that are biologically and chemically inactive and that, when exposed to biodegradation and/or leaching, will not adversely impact the waters of the state or public health.

(51~~48~~) "Infectious Waste" means biological waste, cultures and stocks, pathological waste, and sharps; as defined in ORS 459.386.

(52~~49~~) "Land Application Unit" means a disposal site where sludges or other solid wastes are applied onto or incorporated into the soil surface for agricultural purposes or for treatment and disposal.

(5~~3~~0) "Land Disposal Site" means a disposal site in which the method of disposing of solid waste is by landfill, dump, waste pile, pit, pond, lagoon or land application.

(5~~4~~1) "Landfill" means a facility for the disposal of solid waste involving the placement of solid waste on or beneath the land surface.

(5~~5~~2) "Leachate" means liquid that has come into direct contact with solid waste and contains dissolved, miscible and/or suspended contaminants as a result of such contact.

(5~~6~~3) "Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

(5~~7~~4) "Local Government Unit" means a city, county, Metropolitan Service District formed under ORS Chapter 268, sanitary district or sanitary authority formed under ORS Chapter 450, county service district formed under ORS Chapter 451, regional air quality control authority formed under ORS 468A.100 to 468A.130 and 468A.140 to 468A.175 or any other local government unit responsible for solid waste management.

(5~~8~~5) "Low-Risk Disposal Site" means a disposal site which, based upon its size, site location, and waste characteristics, the department determines to be unlikely to adversely impact the waters of the State or public health.

(5~~9~~6) "Material Recovery" means any process of obtaining from solid waste, by pre-segregation or otherwise, materials which still have useful physical or chemical properties and can be reused, recycled or composted for some purpose.

(60~~57~~) "Material Recovery Facility" means a solid waste management facility that separates materials for the purposes of recycling from an incoming mixed solid waste stream by using manual and/or mechanical methods, or a facility at which previously separated recyclables are collected.

(61~~58~~) "Medical Waste" means solid waste that is generated as a result of patient diagnosis, treatment, or immunization of human beings or animals.

(62~~59~~) "Monofill" means a landfill or landfill cell into which only one type of waste may be placed.

(6~~3~~0) "Municipal Solid Waste Landfill" means a discrete area of land or an excavation that receives domestic solid waste, and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined under §257.2 of 40 CFR, Part 257. It may also receive other types of wastes such as nonhazardous sludge, hazardous waste from conditionally exempt small quantity generators, construction and demolition waste and industrial solid waste.

(641) "Net Working Capital" means current assets minus current liabilities.

(652) "Net Worth" means total assets minus total liabilities and is equivalent to owner's equity.

(663) "Pathological Waste" means biopsy materials and all human tissues, anatomical parts that emanate from surgery, obstetrical procedures, autopsy and laboratory procedures and animal carcasses exposed to pathogens in research and the bedding and other waste from such animals. "Pathological waste" does not include teeth or formaldehyde or other preservative agents.

(674) "Permit" means a document issued by the department which by its conditions may authorize the permittee to construct, install, modify, operate or close a disposal site in accordance with specified limitations.

(685) "Permit Action" means the issuance, modification, renewal or revocation by the department of a permit.

(696) "Person" means the United States, the state or a public or private corporation, local government unit, public agency, individual, partnership, association, firm, trust, estate or any other legal entity.

(7067) "Processing of Wastes" means any technology designed to change the physical form or chemical content of solid waste including, but not limited to, baling, composting, classifying, hydropulping, incinerating and shredding.

(7168) "Public Waters" or "Waters of the State" include lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.

(7269) "Putrescible Waste" means solid waste containing organic material that can be rapidly decomposed by microorganisms, and which may give rise to foul smelling, offensive products during such decomposition or which is capable of attracting or providing food for birds and potential disease vectors such as rodents and flies.

(730) "Recycling" means any process by which solid waste materials are transformed into new products in such a manner that the original products may lose their identity.

(741) "Regional Disposal Site" means a disposal site that receives, or a proposed disposal site that is designed to receive more than 75,000 tons of solid waste a year from outside the immediate service area in which the disposal site is located. As used in this section, "immediate service area" means the county boundary of all counties except a county that is within the

boundary of the Metropolitan Service District. For a county within the Metropolitan Service District, "immediate service area" means that Metropolitan Service District boundary.

(752) "Release" has the meaning given in ORS 465.200(14).

(763) "Resource Recovery" means the process of obtaining useful material or energy from solid waste and includes energy recovery, material recovery and recycling.

(774) "Reuse" means the return of a commodity into the economic stream for use in the same kind of application as before without change in its identity.

(785) "Salvage" means the controlled removal of reusable, recyclable or otherwise recoverable materials from solid wastes at a solid waste disposal site.

(796) "Sensitive Aquifer" means any unconfined or semiconfined aquifer that is hydraulically connected to a water table aquifer, and where flow could occur between the aquifers due to either natural gradients or induced gradients resulting from pumpage.

(80) "Sensitive Environment" means a sensitive environment defined in OAR 340-122-0115(50) of the Hazardous Substance Remedial Action Rules.

(8177) "Septage" means the pumpings from septic tanks, cesspools, holding tanks, chemical toilets and other sewage sludges not derived at sewage treatment plants.

(8278) "Sharps" means needles, IV tubing with needles attached, scalpel blades, lancets, glass tubes that could be broken during handling and syringes that have been removed from their original sterile containers.

(8379) "Sludge" means any solid or semi-solid waste and associated supernatant generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant or air pollution control facility or any other such waste having similar characteristics and effects.

(840) "Sole Source Aquifer" means the only available aquifer, in any given geographic area, containing potable groundwater with sufficient yields to supply domestic or municipal water wells.

(851) "Solid Waste" means all useless or discarded putrescible and non-putrescible materials, including but not limited to garbage, rubbish, refuse, ashes, paper and cardboard, sewage sludge, septic tank and cesspool pumpings or other sludge, useless or discarded commercial, industrial, demolition and construction materials, discarded or abandoned vehicles or parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semi-solid materials, dead animals and infectious waste. The term does not include:

(a) Hazardous waste as defined in ORS 466.005;

(b) Materials used for fertilizer, soil conditioning, humus restoration, or for other productive purposes or which are salvageable for these purposes and are used on land in agricultural operations and the growing or harvesting of crops and the raising of fowls or animals, provided the materials are used at or below agronomic application rates.

(862) "Solid Waste Boundary" means the outermost perimeter (on the horizontal plane) of the solid waste at a landfill as it would exist at completion of the disposal activity.

(873) "Source Separate" means that the person who last uses recyclable materials separates the recyclable material from solid waste.

(884) "Tangible Net Worth" means the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties.

(895) "Third Party Costs" mean the costs of hiring a third party to conduct required closure, post-closure or corrective action activities.

(9086) "Transfer Station" means a fixed or mobile facility other than a collection vehicle where solid waste is taken from a smaller collection vehicle and placed in a larger transportation unit for transport to a final disposal location.

(9187) "Treatment" or "Treatment Facility" means any method, technique, or process designed to change the physical, chemical, or biological character or composition of any solid waste. It includes but is not limited to soil remediation facilities. It does not include "composting" as defined in section (18) of this rule, "material recovery" as defined in section (56) of this rule, nor does it apply to a "material recovery facility" as defined in section (57) of this rule.

(9288) "Underground Drinking Water Source" means an aquifer supplying or likely to supply drinking water for human consumption.

(9389) "Vector" means any insect, rodent or other animal capable of transmitting, directly or indirectly, infectious diseases to humans or from one person or animal to another.

(940) "Vegetative" means feedstocks used for composting that are derived from plants including but not limited to: fruit and vegetable peelings or parts, grains, coffee grounds, crop residue, waxed cardboard and uncoated paper products. Vegetative material does not include oil, grease, or dairy products such as milk, mayonnaise or ice cream.

(951) "Vermicomposting" means the controlled and managed process by which live worms convert solid waste into dark, fertile, granular excrement.

(962) "Vermiculture" means the raising of earth worms for the purpose of collecting castings for composting or enhancement of a growing medium.

(973) "Water Table Aquifer" means an unconfined aquifer in which the water table forms the upper boundary of the aquifer. The water table is typically below the upper boundary of the geologic strata containing the water, the pressure head in the aquifer is zero and elevation head equals the total head.

(984) "Wellhead protection area" means the surface and subsurface area surrounding a water well, spring or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach that water well, spring, or wellfield. A public water system is a system supplying water for human consumption that has four or more service connections or supplies water to a public or commercial establishment which operates a total of at least 60 days per year, and which is used by 10 or more individuals per day.

(995) "Wood waste" means chemically untreated wood pieces or particles generated from processes commonly used in the timber products industry. Such materials include but are not limited to sawdust, chips, shavings, stumps, bark, hog-fuel and log sort yard waste, but do not include wood pieces or particles containing or treated with chemical additives, glue resin, or chemical preservatives.

(10096) "Wood waste Landfill" means a landfill that receives primarily wood waste.

(10197) "Zone of Saturation" means a three-dimensional section of the soil or rock in which all open spaces are filled with groundwater. The thickness and extent of a saturated zone may vary seasonally or periodically in response to changes in the rate or amount of groundwater recharge, discharge or withdrawal.

NOTE: Definition updated to be consistent with current Hazardous Waste statute.

[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 459.045 & 468.020
Stats. Implemented: ORS 459 & 459A
Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 26-1981, f. & ef. 9-8-81; DEQ 2-1984, f. & ef. 1-16-84; DEQ 18-1988, f. & cert. ef. 7-13-88 (and corrected 2-3-89); DEQ 14-1990, f. & cert. ef. 3-22-90; DEQ 24-1990, f. & cert. ef. 7-6-90; DEQ 5-1993, f. & cert. ef. 3-10-93, Renumbered from 340-061-0010; DEQ 10-1994, f. & cert. ef. 5-4-94; DEQ 9-1996, f. & cert. ef. 7-10-96; DEQ 17-1997, f. & cert. ef. 8-14-97; DEQ 27-1998, f. & cert. ef. 11-13-98; DEQ 15-2000, f. & cert. ef. 10-11-00; DEQ 6-2009, f. & cert. ef. 9-14-09

340-093-0260

Beneficial Use of Solid Waste

OAR 340-093-0260 through 340-093-0290 establish criteria and procedures for determining if the use of a solid waste is a beneficial use. OAR 340-093-0270 lists approved standing beneficial uses of solid waste. The Department may approve case-specific beneficial uses of solid waste according to the criteria and procedures in OAR 340-093-0280 and OAR 340-093-0290.

(1) A beneficial use determination is not needed for the:

(a) Disposal of solid waste that is exempt from permit requirements under OAR, chapter 340, divisions 93 or 96; or

(b) Recycling of a recyclable material under the Recycling and Waste Reduction Rules, OAR chapter 340, divisions 90 and 91.

(2) The Department will review and approve the beneficial use of a solid waste at a permitted solid waste or hazardous waste disposal site through the applicable permit.

(3) The Department may consider the policy and waste management hierarchy in ORS 459.015(2)(a) in making case-specific beneficial use determinations under OAR 340-093-0290.

(4) A solid waste managed according to a standing beneficial use determination under OAR 340-093-0270 or a case-specific beneficial use determination under OAR 340-093-0280 and OAR 340-093-0290 is not regulated as solid waste.

(5) The Department may review solid waste uses authorized before the effective date of this rule and may require the recipient of a prior authorization to apply for and obtain a case-specific beneficial use determination to continue implementing the earlier approved use, if the use is not a standing beneficial use under OAR 340-093-0270.

(6) OAR 340-093-0260 through OAR 340-093-0290 do not supersede any city or county authority under ORS chapter 268, 459, or 459A.

Stat. Auth.: ORS 459.045, 459.215, 459.235, 459.A025 & 468.065

Stats. Implemented: ORS 459.045, ORS 459.215 & 459.235

340-093-0270

Standing Beneficial Use Determinations

A person may manage solid waste according to a standing beneficial use determination listed in section (5) without contacting the Department's Solid Waste Program for approval if the person complies with the requirements of this rule.

(1) A person managing solid waste as a standing beneficial use must:

(a) Manage the material until the time it is used for its approved beneficial use, including any storage, transportation, or processing, so as to prevent releases to the environment or nuisance conditions;

(b) Use the material consistent with applicable engineering standards, commercial standards, and agricultural or horticultural practices;

(c) Ensure that hazardous substances in the material meet one of the criteria in this subsection,

(i) Do not significantly exceed the concentration in a comparable raw material or commercial product,

(ii) Do not exceed naturally occurring background concentrations, or

(iii) Will not exceed acceptable risk levels, including evaluation of persistence and potential bioaccumulation, when managed according to a beneficial use determination;

(d) Ensure the use does not result in the increase of a hazardous substance in a sensitive environment; and

(e) Use the material in compliance with applicable federal, state, and local regulations.

(2) A person who supplies a solid waste to another person for a beneficial use must provide information to the recipient of the material through written documentation, labeling, or other means that identifies the:

(a) Type of material;

(b) Type and concentration of hazardous substances if known;

(c) Approved beneficial uses; and

(d) Any conditions that apply under this rule.

(3) At the request of the Department, a person managing a solid waste according to a standing beneficial use determination must provide information sufficient to demonstrate the material and use comply with this rule.

(4) A person beneficially using a solid waste must submit a report to the Department for any material managed within a calendar year for those solid wastes listed in section (5), subsections (c), (d), (f), and (g), which involve the direct land application of solid wastes that contain hazardous substances exceeding clean fill criteria. Reports must include: material characterization, the type and concentration of hazardous substances, the beneficial use, volume used, and location of land application.

(5) Standing beneficial use determinations:

Solid Waste	Beneficial Use	Conditions on Use
(a) Asphalt pavement or asphalt grindings from road projects	As asphalt and aggregate in new asphalt pavement or as fill within road prisms	Asphalt grindings must be compacted when used within road prisms

(b) Asphalt shingle waste from roof tear-offs and manufacturer scrap	As asphalt binder in asphalt mixtures	The waste does not contain asbestos or other non-asphalt shingle materials from roof tear-offs, such as nails, metal flashing, paper, or wood waste
(c) Dredged sediment approved by the department's water quality program for unconfined in-water placement based on chemical screening	Non-residential construction fill, surcharge, utility trench fill, or roadbase; habitat improvement, beach nourishment or other similar uses	A person using the material must submit a report to the Department in accordance with section (4) of this rule
(d) Dredged sediment not approved by the department's water quality program for in-water placement	Non-residential construction fill, utility trench fill, or roadbase	Concentrations of hazardous substances are below the higher of Department-approved human health occupational risk-based screening levels or naturally occurring background; placed where it will not be in contact with or adversely impact waters of the state; covered in a manner that minimizes exposure to ecological receptors; and a person using the material must submit a report to the Department in accordance with section (4) of this rule
(e) Foundry sand produced by iron, steel, or aluminum foundries	As aggregate in asphalt mixtures, concrete, Portland cement, or masonry mortar	None specified beyond the requirements of this rule
(f) Foundry sand produced by iron, steel, or aluminum foundries	Non-residential construction fill, utility trench fill, or roadbase	Concentrations of hazardous substances are below the higher of Department-approved human health occupational risk-based screening levels or naturally occurring background; placed where it will not be in contact with or adversely impact waters of the state; covered in a manner that minimizes exposure to ecological receptors; and a person using the material must submit a report to the Department in accordance with section (4) of this rule
(g) Soil from cleanup sites	Non-residential construction fill, utility trench fill, or roadbase	Concentrations of hazardous substances are below the higher of Department-approved human health occupational risk-based screening levels or naturally occurring background; placed where it will not be in contact with or adversely impact waters of the state; covered in a manner that

		minimizes exposure to ecological receptors; the use is approved through Department Cleanup or Tanks Program cost recovery oversight; and a person using the material must submit a report to the Department in accordance with section (4) of this rule
(h) Soil from petroleum cleanup sites	As aggregate in asphalt mixtures	Petroleum contamination from releases of heating oil or motor fuel only
(i) Steel slag	As aggregate in asphalt mixtures, concrete, or Portland cement	None specified beyond the requirements of this rule
(j) Street sweeping fines	Spill response absorbent	After use of the waste a hazardous waste determination must be conducted and the material disposed at an appropriate permitted disposal site
(k) Street sweeping sand from winter storm applications	Road sanding	Swept up within 6 months of application or being re-exposed on the road after snowmelt; and the sand is separated from the street sweepings
(l) Wood-derived bottom ash, boiler rock, or clinkers, including rock, sand, dirt, and fused wood ash, from wood and wood waste fired boilers	As aggregate in asphalt mixtures, concrete, or Portland cement	None specified beyond the requirements of this rule

Stat. Auth.: ORS 459.045, 459.215, 459.235, 459.A025 & 468.065

Stats. Implemented: ORS 459.045, ORS 459.215 & 459.235

340-093-0280

Case-Specific Beneficial Use Performance Criteria

The Department may approve a beneficial use of a solid waste that meets the criteria of this rule.

(1) The applicant has characterized the solid waste and use sufficiently to demonstrate compliance with this rule.

(2) The use is productive, including:

(a) There is an identified or reasonably likely use for the material that is not speculative;

(b) The use is a valuable part of a manufacturing process, an effective substitute for a valuable raw material or commercial product, or otherwise authorized by the Department and does not constitute disposal; and

(c) The use is in accordance with applicable engineering standards, commercial standards, and agricultural or horticultural practices.

(3) The use will not create an adverse impact to public health, safety, welfare, or the environment, including:

(a) The material is not a hazardous waste under ORS 466.005;

(b) Until the time a material is used according to a beneficial use determination, the material must be managed, including any storage, transportation, or processing, to prevent releases to the environment or nuisance conditions;

(c) Hazardous substances in the material meet one of the criteria in this subsection,

(i) Do not significantly exceed the concentration in a comparable raw material or commercial product,

(ii) Do not exceed naturally occurring background concentrations, or

(iii) Will not exceed acceptable risk levels, including evaluation of persistence and potential bioaccumulation, when the material is managed according to a beneficial use determination;

(d) The use will not result in the increase of a hazardous substance in a sensitive environment;

(e) The use will not create objectionable odors, dust, unsightliness, fire, or other nuisance conditions; and

(f) The use must comply with applicable federal, state, and local regulations.

Stat. Auth.: ORS 459.045, 459.215, 459.235, 459.A025 & 468.065

Stats. Implemented: ORS 459.045, ORS 459.215 & 459.235

340-093-0290

Case-Specific Beneficial Use Review Procedures

Any person may apply to the Department for case-specific approval for the beneficial use of a solid waste that is not a standing beneficial use under OAR 340-093-0270. A written application must include the information required under the tier in sections (1), (2), or (3) of this rule that is most appropriate for the level of Department review necessary to make a determination.

(1) Tier One, an application for the beneficial use of a solid waste that does not contain hazardous substances significantly exceeding the concentration in a comparable raw material or commercial product and that will be used in a manufactured product, must include:

(a) Name, address, and telephone number of the applicant and the generator;

(b) Description of the material, manner of generation, and estimated quantity to be used each year;

(c) A description of the proposed use;

(d) A comparison of the chemical and physical characteristics of the material proposed for use with the material it will replace;

(e) A demonstration of compliance with the performance criteria in OAR 340-093-0280 based on knowledge of the process that generated the material, properties of the finished product, or testing; and

(f) Any other information the Department may require to evaluate the proposal.

(2) Tier Two, an application for the beneficial use of a solid waste that contains hazardous substances significantly exceeding the concentration in a comparable raw material or commercial product, or involves application on the land must include:

(a) The information required in section (1) of this rule;

(b) Sampling and analysis that provides chemical, physical, and where appropriate, biological characterization of the material and potential contaminants in the material or the end product, if applicable;

(c) A risk screening comparing the concentration of hazardous substances in the material to existing, Department approved, risk-based screening level values and demonstrating compliance with acceptable risk levels;

(d) Location or type of land use where the material will be applied, consistent with the risk scenarios used to evaluate risk; and

(e) A description of how the material will be managed to minimize potential adverse impacts to public health, safety, welfare, or the environment.

(3) Tier Three, an application for the beneficial use of a solid waste that requires research, such as a literature review or risk assessment, or for a demonstration project to demonstrate compliance with this rule, must include:

(a) The information required in section (2) of this rule;

(b) A discussion of the justification for the proposal;

(c) The expected length of time that will be required to complete a demonstration; and

(d) The methods proposed to ensure safe and proper management of the material during a demonstration.

(4) Upon receipt of an application, the Department:

(a) May request additional information necessary to determine whether the application meets the criteria for approval under this rule, and

(b) Will determine the tier in sections (1), (2), or (3) of this rule that applies to the application and require payment of the associated fee in OAR 340-097-0120 (2)(f).

(5) Upon completing review of the information submitted, the Department will:

(a) Notify the applicant in writing that a beneficial use determination has been made including any conditions for the determination;

(b) Deny the request for a case-specific beneficial use determination; or

(c) Authorize a demonstration project for an innovative process or technology that is a proposed beneficial use.

(6) The Department will issue demonstration project authorizations for a period of up to one year to determine whether the proposed use meets the criteria for a beneficial use determination. Within one year, the applicant must submit a progress report to the Department. Upon completing review of the report, the Department will:

(i) Issue a case-specific beneficial use determination for the proposed use;

(ii) Extend the demonstration authorization for up to an additional year; or

(iii) Deny the request for a beneficial use determination if the proposed use is not likely to meet the criteria for a beneficial use determination within an additional one-year period.

(7) At the request of the Department, a person managing solid waste under this rule must:

(a) Submit a material management plan that specifies pre-use management requirements for department review and approval;

(b) Document the current and reasonably likely future land use, where the beneficial use involves land application at a specific location;

(c) Allow the Department at any reasonable time to inspect the location where the material is stored, used, or otherwise located to ensure compliance with this rule; and

(d) Submit a report that confirms that the material characterization and operating practices continue to comply with the beneficial use as approved.

(8) The Department will publish a list of all case-specific beneficial use determinations.

(9) The Department may modify or revoke a case-specific beneficial use determination or a demonstration project authorization if it determines that:

(a) The application includes a material misrepresentation or false statement;

(b) The material has not been used in accordance with the performance criteria listed in OAR 340-093-0280 and all specified conditions of approval;

(c) A violation of any statute, rule, order, permit, ordinance, judgment or decree regarding the use has occurred; or

(d) Based on new information or changed conditions, the proposed beneficial use has the potential to cause an adverse impact to public health, safety, welfare, or the environment.

(10) Upon denial or revocation of a case-specific beneficial use determination or a demonstration project authorization, the material is subject to regulation as a solid waste in accordance with applicable provisions of ORS 459 and OAR chapter 340, divisions 93 through 97. In such a case, failure to comply with these provisions may be cause for the assessment of civil penalties as provided in OAR chapter 340, division 12 or for any other enforcement action provided by law.

Stat. Auth.: ORS 459.045, 459.215, 459.235, 459.A025 & 468.065

Stats. Implemented: ORS 459.045, ORS 459.215 & 459.235

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 97

SOLID WASTE: PERMIT FEES

340-097-0120

Permit/Registration Categories and Fee Schedule

(1) For purposes of OAR chapter 340, division 97:

(a) A "new facility" means a facility at a location not previously used or permitted, and does not include an expansion to an existing permitted site;

(b) An "off-site industrial facility" means all industrial solid waste disposal sites other than a "captive industrial facility";

(c) A "captive industrial facility" means an industrial solid waste disposal site where the permittee is the owner and operator of the site and is the generator of all the solid waste received at the site.

(2) Application Processing Fee. Except as provided in sections (3), (4), and (5) of this rule with respect to composting facilities, an application processing fee must be submitted with each application for a new facility, including application for preliminary approval pursuant to OAR 340-093-0090. The amount of the fee will depend on the type of facility and the required action as follows:

(a) A new municipal solid waste landfill facility, construction and demolition landfill, incinerator, energy recovery facility, solid waste treatment facility, off-site industrial facility or sludge disposal facility:

(A) Designed to receive over 7,500 tons of solid waste per year: $10,000;

(B) Designed to receive less than 7,500 tons of solid waste per year: $5,000.

(b) A new captive industrial facility (other than a transfer station or material recovery facility): $1,000;

(c) A new transfer station or material recovery facility:

(A) Receiving over 50,000 tons of solid waste per year: $500;

(B) Receiving between 10,000 and 50,000 tons of solid waste per year: $200;

(C) Receiving less than 10,000 tons of solid waste per year: $100.

(d) Letter Authorization (pursuant to OAR 340-093-0060):

(A) New site: $500;

(B) Renewal: $500.

(e) Permit Exemption Determination (pursuant to OAR 340-093-0080(2)): $500.

(f) Beneficial use of solid waste application and reporting fees (pursuant to OAR 340-093-0260 through 340-093-0290):

(A) The review of an annual or other report required under a beneficial use determination: $250;

(B) A Tier One beneficial use determination: $1,000;

(C) A Tier Two beneficial use determination: $2,000;

(D) A Tier Three beneficial use determination: $5,000;

(E) Annual extension to a demonstration project authorization: $1,000.

(3) Composting Facility Screening Fee. Every composting facility that is required to comply with OAR 340-096-0080: Screening must pay a screening fee of $150. The fee must be submitted with the application for screening, as provided in OAR 340-096-0080(1).

(4) Composting Facility Plan Review and Approval Fee. Every composting facility that is required to comply with OAR 340-096-0090: Operations Plan Approval must pay a fee as provided below. The fee must be submitted with the proposed Operations Plan, as provided in OAR 340-096-0090(1). Agricultural composting facilities for which the Oregon Department of Agriculture is providing facility plan review and approval are not required to pay this fee.

(a) For facilities composting over 100 tons and less than or equal to 3,500 tons of feedstocks per year: $500;

(b) For facilities composting over 3,500 tons and less than or equal to 7,500 of feedstocks tons per year: $750;

(c) For facilities composting over 7,500 tons and less than or equal to 10,000 tons per year: $1000;

(d) For facilities composting over 10,000 tons and less than or equal to 50,000 tons per year: $2,000;

(e) For facilities composting over 50,000 tons per year: $5,000.

(5) Composting Facility Engineering Review Fee. Every composting facility that requires department review of engineering plans and specifications under OAR 340-096-0130 must pay a fee of $500. This fee is in addition to the fee required by (4) of this rule. Agricultural composting facilities for which the Oregon Department of Agriculture provides review of engineering plans and specifications are not required to pay this fee.

(6) Solid Waste Permit Compliance Fee. The Commission establishes the following fee schedule including base per-ton rates to be used to determine the solid waste permit compliance fee beginning with fiscal year 1993. The per-ton rates are based on the estimated solid waste to be received at all permitted solid waste disposal sites and on the department's Legislatively Approved Budget. The department will review annually the amount of revenue generated by this fee schedule. To determine the solid waste permit compliance fee, the department may use the base per-ton rates or any lower rates if the rates would generate more revenue than provided in the department's Legislatively Approved Budget. Any increase in the base rates must be fixed by rule by the Commission. (In any case where a facility fits into more than one category, the permittee must pay only the highest fee):

(a) All facilities accepting or permitted to accept solid waste except transfer stations, material recovery facilities and composting facilities:

(A) $200, if the facility receives less than 1,000 tons of solid waste a year; or

(B) A solid waste permit compliance fee based on the total amount of solid waste received at the facility in the previous calendar quarter or year, as applicable, at the following rate:

(i) All municipal landfills, construction and demolition landfills, off-site industrial facilities, sludge disposal facilities, incinerators and solid waste treatment facilities: $.21 per ton;

(ii) Captive industrial facilities: $.21 per ton;

(iii) Energy recovery facilities. $.13 per ton.

(C) If a disposal site (other than a municipal solid waste facility) is not required by the department to monitor and report volumes of solid waste collected, the solid waste permit compliance fee may be based on the estimated tonnage received in the previous quarter or year.

(b) Transfer stations and material recovery facilities:

(A) Facilities accepting over 50,000 tons of solid waste per year: $1,000;

(B) Facilities accepting between 10,000 and 50,000 tons of solid waste per year: $500;

(C) Facilities accepting less than 10,000 tons of solid waste per year: $50.

(c) Composting facilities with a Composting Permit, except agricultural composting facilities for which the Oregon Department of Agriculture is providing facility oversight:

(A) Utilizing over 50,000 tons of feedstocks for composting per year: $5,000;

(B) Utilizing over 7,500 and less than or equal to 50,000 tons of feedstocks for composting per year: $1,000

(C) Utilizing over 3,500 and less than or equal to 7,500 tons of feedstocks for composting per year: $500.

(D) Utilizing over 100 tons and less than or equal to 3,500 tons of feedstocks for composting per year: $100.

(d) Closed Disposal Sites:

(A) Year of closure. If a land disposal site stops receiving waste before April 1 of the fiscal year in which the site permanently ceases active operations, the department will determine a pro-rated permit compliance fee for those quarters of the fiscal year not covered by the permit compliance fee paid on solid waste received at the site. The pro-rated fee for the quarters the site was closed shall be based on the calculation in paragraph (B) of this subsection;

(B) Each land disposal site which closes after July 1, 1984: $150; or the average tonnage of solid waste received in the three most active years of site operation multiplied by $.025 per ton, whichever is greater; but the maximum permit compliance fee shall not exceed $2,500.

(7) 1991 Recycling Act permit fee:

(a) A 1991 Recycling Act permit fee must be submitted by each solid waste permittee which received solid waste in the previous calendar quarter or year, as applicable, except transfer stations, material recovery facilities, composting facilities and captive industrial facilities. The Commission establishes the 1991 Recycling Act permit fee as $.09 per ton for each ton of solid waste received in the subject calendar quarter or year;

(b) The $.09 per-ton rate is based on the estimated solid waste received at all permitted solid waste disposal sites subject to this fee and on the department's Legislatively Approved Budget. The department will review annually the amount of revenue generated by this rate. To determine the 1991 Recycling Act permit fee, the department may use this rate or any lower rate if the rate would generate more revenue than provided in the department's Legislatively Approved Budget. Any increase in the rate must be fixed by rule by the Commission;

(c) This fee is in addition to any other permit fee and per-ton fee which may be assessed by the department.

(8) Per-ton solid waste disposal fees on domestic solid waste. Each solid waste disposal site that receives domestic solid waste (except transfer stations, material recovery facilities, solid waste treatment facilities and composting facilities), and each person transporting solid waste out of Oregon for disposal at a disposal site that receives domestic solid waste except as excluded under OAR 340-097-0110(4)(c), must submit to the department the following fees for each ton of domestic solid waste received at the disposal site:

(a) A per-ton fee of 50 cents;

(b) An additional per-ton fee of 31 cents;

(c) Beginning January 1, 1993, an additional per-ton fee of 13 cents for the Orphan Site Account;

(d) Submittal schedule:

(A) These per-ton fees must be submitted to the department quarterly. Quarterly remittals shall be due on the 30th day of the month following the end of the calendar quarter;

(B) Disposal sites receiving less than 1,000 tons of solid waste per year must submit the fees annually on January 31. If the disposal site is not required by the department to monitor and report volumes of solid waste collected, the fees must be accompanied by an estimate of the population served by the disposal site;

(C) For solid waste transported out of state for disposal, the per-ton fees must be paid to the department quarterly. Quarterly remittals are due on the 30th day of the month following the end of the calendar quarter in which the disposal occurred. If the transportation is not on-going, the fee must be paid to the department within 60 days after the disposal occurs.

(e) As used in this rule and in OAR 340-097-0110, the term "domestic solid waste" does not include source separated recyclable material, or material recovered at the disposal site;

(f) Solid waste that is used as daily cover at a landfill in place of virgin soil will not be subject to the per-ton solid waste fees in this section, provided that:

(A) The amount of solid waste used as daily cover does not exceed the amount needed to provide the equivalent of six inches of soil used as daily cover;

(B) If disposed of in Oregon, the solid waste is not being used on a trial basis, but instead has received final approval from the department for use as daily cover; and

(C) If disposed of in a landfill outside of Oregon, the solid waste has received final approval from the appropriate state or local regulatory agency that regulates the landfill.

(g) For solid waste delivered to disposal facilities owned or operated by a Metropolitan Service District, the fees established in this section will be levied on the district, not on the disposal site.

Stat. Auth.: ORS 459.045, 459.235 & 468.065
Stats. Implemented: ORS 459.235, 459.236, 459A.110 & 459A.115
Hist.: DEQ 3-1984, f. & ef. 3-7-84; DEQ 12-1988, f. & cert. ef. 6-14-88; DEQ 14-1990, f. & cert. ef. 3-22-90; DEQ 45-1990, f. & cert. ef. 12-26-90; DEQ 12-1991(Temp), f. & cert. ef. 8-2-91; DEQ 28-1991, f. & cert. ef. 12-18-91; DEQ 8-1992, f. & cert. ef. 4-30-92; DEQ 5-1993, f. & cert. ef. 3-10-93, Renumbered from 340-061-0120; DEQ 23-1993, f. 12-16-93, cert. ef. 1-1-94; DEQ 10-1994, f. & cert. ef. 5-4-94; DEQ 9-1996, f. & cert. ef. 7-10-96; DEQ 17-1997, f. & cert. ef. 8-14-97; DEQ 27-1998, f. & cert. ef. 11-13-98; DEQ 6-2009, f. & cert. ef. 9-14-09

Summary of Public Comments and Agency Responses

Title of Rulemaking: Beneficial Use of Solid Waste

Prepared by: Tom Roick **Date: March 17, 2010**

Comment period

The public comment period opened on October 14, 2009 and closed at 5:00 pm on November 24, 2009. DEQ held public hearings on November 17, 2009 at 6:00 pm in Portland, Eugene, and Bend. Three people attended in Portland and three in Eugene. No one attended in Bend, and no one provided comments during the hearings. Twenty-seven people submitted written comments.

Organization of comments and responses

Summaries of comments and DEQ's responses below are organized by section of the draft rules. No one submitted comments regarding the proposed definitions in OAR 340-093-0030 or fees in OAR 340-097-0120(2). Commentors are by referenced by number in parentheses, and names associated with the numbers are listed at the end of the summary.

Summary of Comments and Agency Responses

OAR 340-093-0260 Beneficial Use of Solid Waste

Comment 1	Concern that we be clear the rules do not change the definition of solid waste, interpretation of the definition, or modify existing definitions for industrial solid waste, wood waste, pulp and paper byproducts, etc. Request assurance that the new rules do not change current practices of Oregon pulp and paper facilities in agricultural application of industrial byproducts or in requirements governing recycling of paper. (12), (27)
Response	*The existing definition for solid waste in OAR 340-093-0030 and DEQ's interpretation of the definition are unchanged. Moreover, the rules do not change whether materials are or are not solid waste. In order for DEQ to regulate a material under these rules, the material must first be solid waste (see the first sentence of OAR 340-093-0260 of the rules). Additionally, the proposed rules do not apply to recycling of recyclable wastes (OAR 340-093-0260(1)(b)).* *DEQ does not intend to require the application of these rules to solid wastes used in agricultural operations provided the materials are used at or below agronomic application rates in accordance with the solid waste exclusion in 340-093-0030. Nevertheless, if a person requests DEQ review of a proposed agronomic application, these rules will provide a process for DEQ to make a determination whether a proposed use is beneficial, including assessment of appropriate agronomic application rates.*

Comment 2	Revise OAR 340-093-0260(1) to say "the following are not eligible for management in accordance with OAR…" rather than "…are not subject to OAR…" (12)
Response	*DEQ has revised this section of the proposed rules to state that a beneficial*

	use determination "is not needed for…" solid waste that is exempt from permit requirements. This language is more consistent with the intent.

Comment 3	Revise OAR 340-093-0260(1)(a) and (b), removing "materials" and "managed" and adding "including the beneficial use of solid waste." (18)
Response	*DEQ has revised these subsections by using the term "solid waste" and adding a separate subsection specific to permitted facilities.*

Comment 4	Opposition to use of the word "material" rather than "solid waste" throughout the draft rules. It is our understanding that the DEQ's reason for substituting "material" with "solid waste" is to make it clear that solid waste that is given a beneficial use determination is no longer subject to regulation as a solid waste. However, solid waste given a beneficial use determination *is still defined* as solid waste and the draft rules should reflect this concept by continuing to define it as solid waste. Leaving "material" undefined could open the door to inconsistent interpretations which could threaten the DEQ's ability to regulate the solid waste once it receives a beneficial use determination. Replace "material" with "solid waste" throughout the draft rules, or define the term "material" in the rules. (18), (23)
Response	*Because the rules only apply to solid waste, the terms "solid waste" and "material" may be used interchangeably in most sections of the proposed rules. Nevertheless, based on the number of comments we received regarding whether the proposed rules will regulate materials that industry does not consider to be solid waste, DEQ agrees that it will be clearer to use the term "solid waste" in certain places such as in 340-093-0260 and at the beginning of rule sections or subsections. We have made some of these suggested revisions. The revised rules retain the word "material" in certain places for readability and where it is unlikely to cause uncertainty in the intent of the rules.*

Comment 5	The term "managed" is imprecise and undefined and is used in different ways in the proposed rules. Because of the imprecision in OAR 340-093-0260(3) in the use of the terms "material managed," a solid waste that fits a standing or case-specific beneficial use determination would be exempt from regulation under OAR 340-093 as soon as it was generated and while it was being transported, handled and stored whether or not it was ever actually beneficially used. (18)
Response	*DEQ has retained use of the term "manage" in the proposed rules. DEQ uses the term "manage" in reference to activities from the point of generation of the solid waste to end use. Revisions that would limit these rules to "a person using solid waste" do not account for handling by generators or processors up to the time of actual use. DEQ intends not to regulate materials as solid waste from the point of generation to end use as long as a person's activities are in accordance with these rules. If the solid waste is not actually used or a person does not otherwise comply with the rules, DEQ will regulate the material as solid waste.*

Comment 6	Revise the rule language to clarify the status of wood residuals and similar co-products sold as fuel or as manufacturing feedstocks. Suggest we revise so that the following are not subject to the rules: "(d) Materials generated

	from a manufacturing process that are sold as fuel, end use products or manufacturing feedstocks." (8), (9), (11), (13), (14), (15), (17), (20), (21), (24)
Response	*The purpose of the beneficial use rules is to establish standing beneficial uses and case-specific beneficial use criteria to manage wastes, not to create a new process to determine what is solid waste. There are numerous materials from industrial processes that may not be solid waste, may be solid waste only in some circumstances, or are solid waste but DEQ has never actively regulated. Wood residuals are one example. Unless a person applies for a beneficial use determination, DEQ does not intend to seek out historical uses for regulation under these proposed rules. DEQ does not consider the suggested language necessary to clarify what is or is not solid waste because materials must be evaluated on a case-by-case basis to determine if they are wastes.* *It is important to note that the standing beneficial uses table and any case-specific beneficial use determinations do not exempt material from being defined as a solid waste; rather, they identify the circumstances under which DEQ will no longer regulate a solid waste.*

Comment 7	OAR 340-093-0260(2) reference to the waste management hierarchy is misleading and could discourage beneficial uses. DEQ should use all reasonable latitude when applying the hierarchy so that facilities are not forced into waste management options that may not be the best for their operations nor discouraged from burning carbon-neutral fuels. Removal of this provision will avoid subjective evaluation of solid waste uses under the waste management hierarchy. (12), (18), (23)
Response	*DEQ has retained this language. The hierarchy is an important concept that encourages the most beneficial use of wastes and may be a factor in specifying case-specific conditions of a beneficial use determination.DEQ recognizes that the hierarchy is just one consideration for reviewing proposed beneficial uses.*

OAR 340-093-0270 Standing Beneficial Use Determinations

Comment 8	Concern that by listing a material for a standing beneficial use under OAR 340-093-0270, the material will in all cases be a solid waste. (8), (9), (10), (11), (13), (14), (15), (20), (21), (24), (26)
Response	*The purpose of the beneficial use rules is to establish standing beneficial uses and case-specific beneficial use criteria and processes to manage wastes, not to identify what is a solid waste. The proposed standing beneficial uses listed in OAR 340-093-0270 only apply to materials that are solid waste. There may be materials listed for standing beneficial uses that are solid waste in some circumstances but are not solid waste in others. DEQ recognizes that in some cases we have disagreed with stakeholders about whether certain materials are solid waste and subject to regulation. DEQ will continue to address those issues as they arise.*

Comment 9	Concern that by listing standing beneficial uses under OAR 340-093-0270 other uses or conditions that are not listed are no longer approved or could not be approved. (8), (9), (10), (11), (13), (14), (15), (20), (21), (24), (26)

Response	*The standing beneficial uses are intended to streamline approval for use of specific solid wastes under specific conditions. In most cases, the proposed standing beneficial uses are those that DEQ believes can be allowed without consultation with DEQ. DEQ frequently is asked about these types of solid waste uses, and the rules are an opportunity to clarify the conditions under which such uses are approved. The standing beneficial uses do not limit approvals that might be obtained through a case-specific application to DEQ under OAR 340-093-0280.*

Comment 10	Revise OAR 340-093-0270(1) through (4) to match the June 2009 draft version of the rules regarding performance standards to parallel the case-specific criteria of OAR 340-093-0280. The criteria for standing beneficial uses should be the same that an applicant has to meet for a case-specific beneficial use. (18), (23)
Response	*The listed criteria for standing beneficial uses identified in the rules and the performance criteria for case-specific DEQ reviews are deliberately different in some respects. DEQ has already reviewed the standing beneficial uses and determined that they meet certain criteria, such as the use being productive. Thus, those criteria are not repeated as standing beneficial use criteria.*

Comment 11	Request the rules be amended by adding back the language that was in place in the June 2009 draft rules, requiring all solid waste receiving a beneficial use determination to be managed, including storage and collection, and transportation, in accordance with Oregon solid waste rules found in OAR 340-093. The language in the current draft rules requires only that the solid waste be managed in a way to "prevent releases to the environment or nuisance conditions." This language creates ambiguity as to how the solid waste will be handled up until the point it is processed into a new product. Commentor understands that the DEQ's reason for this change in the draft rules is to prevent the requirement of a permit in order to manage the solid waste up until the point it is used in a beneficial use manufacturing process. Requiring that persons adhere to solid waste regulations only for solid waste that is destined for disposal, but not placing those same requirements on solid waste that is going towards a beneficial use, is unfounded. (18), (23)
Response	*DEQ disagrees that solid waste identified for a beneficial use must be managed under the same requirements as solid waste destined for disposal. One of the purposes of these proposed rules is to allow alternatives to disposal for managing solid wastes, as long as the material is not causing an adverse impact to human health or the environment. DEQ considers the risk of odors, unsafe storage, etc. to be low for those wastes identified in the standing use table, and that risk is balanced against the opportunity to beneficially use these materials.*

Comment 12	For OAR 340-093-0270(1)(c), recommend removal of the reference to background concentrations. DEQ should not allow use of materials that contain hazardous substances exceeding acceptable risk levels (e.g., arsenic or mercury). (18)
Response	*Some naturally occurring background metal concentrations in Oregon, such as arsenic, exceed DEQ acceptable risk levels. Nevertheless, imported soil is*

	commonly used for fill material without consideration of differences in background concentrations between the source of the soil and the location where it is being applied. The proposed rules do not impose a higher standard on the use of solid waste than for virgin materials such as soil.

Comment 13	OAR 340-093-0270(2): consider adding the following language to this condition "..including any labels required by Oregon Department of Agriculture" so that facilities are reminded of other labeling obligations. (12)
Response	*DEQ has not made this revision. OAR 340-093-0270(e) of the proposed rules requires beneficial uses to be in compliance with applicable federal, state, and local regulations.*

Comment 14	Revise OAR 340-093-0260(5) to require a report from every person using waste beneficially. Annual reporting will allow DEQ to monitor all uses of solid waste for tracking and proper oversight. Although DEQ has apparently indicated that it does not currently have the resources to evaluate such information, that does not mean DEQ should not collect the information so that others could review and evaluate the data. (18), (23)
Response	*DEQ believes the risk of mismanagement of certain wastes identified in the standing beneficial use table is sufficiently low that we do not need to require annual reporting. DEQ agrees that reporting is important in cases where the solid waste use is restricted to certain land uses such as non-residential. We have revised the rules so that reporting is required for standing beneficial uses that involve the land application of solid waste containing hazardous substances above clean fill criteria (e.g., dredged sediment, soil from cleanup sites, and foundry sand). DEQ intends to require reporting for similar circumstances under case-specific beneficial use determinations but will evaluate these on a case-by-case basis. Additionally, DEQ will further evaluate the need for reporting in implementation of the rules.*

Comment 15	Add ash generated from coal combustion as an additive in asphalt, concrete or Portland cement to the list of standing beneficial uses. (17), (26)
Response	*DEQ agrees that coal ash can be beneficially used in asphalt, concrete, and cement mixtures. Note that DEQ, as part of the Boardman PGE facility permitting process, has already approved the use of a portion of the facility's coal ash in making Portland cement. We will evaluate future beneficial uses of coal ash as a case-specific application, as needed.*

Comment 16	Several wastes listed for standing beneficial uses have not historically been defined as waste material (e.g., aged asphalt, mill yard fines). It would be helpful to call out what materials DEQ defines as clean fill and state if they qualify for a standing beneficial use. (26)
Response	*"Clean fill" is exempt from the requirement to obtain a solid waste permit for disposal under OAR OAR 340-093-0050(3)(c); and therefore do not require a beneficial use determination. DEQ will review requests to approve material as "clean" fill outside of the beneficial use rules. DEQ is considering guidance to clarify "clean fill" requirements.*

Comment 17	Concern that asphalt paving and grindings are listed as waste in the rule. Asphalt paving and grindings meet the definition of clean fill under OAR 340-

	093-0030 and are valuable products with a wide range of applications including but not limited to those listed in the standing beneficial use table in OAR 340-093-0270(5)(a). DEQ has allowed used asphalt including grindings and off specification asphalt to be used in any location where fill placement is permitted as stated in the Oregon Department of Transportation (ODOT) Oregon Transportation Investment Act (OTIA) Bridge Program performance standards.(10), (26)
Response	*Weathered and consolidated asphalt is solid waste but considered clean fill per DEQ rules (See definition of asphalt paving and clean fill in OAR 340-093-0030). Asphalt grindings are solid waste that in some situations DEQ has approved for use as fill (though never defined as clean fill) or for use in making new asphalt. DEQ's Solid Waste program has actively regulated the management of asphalt grindings when staff became aware of grindings being placed near or in waterbodies. DEQ has approved on a case-specific basis the use of grindings for construction projects in a manner that addresses potential leaching of hazardous substances to waters of the State.* *Under the proposed rules, asphalt recycled into new asphalt is a standing beneficial use. Asphalt grindings may release small particles into nearby waterbodies. Recent testing of ground up asphalt confirmed that hazardous substances (polynuclear aromatic hydrocarbons and metals) leach from the material if left unconsolidated and have the potential to harm aquatic organisms. Based on this recent data (Eagle Summit property, February 2007) DEQ has allowed use of asphalt grindings as fill if the grindings have been rolled or compacted to minimize runoff of asphalt particles or leachate or they are covered with clean fill. DEQ identified this concern after completion of the OTIA bridge performance standards and has requested that the standards be revised to require that asphalt grindings used as fill be consolidated, consistent with DEQ rules.* *The proposed rules include asphalt grindings as a standing beneficial use and establish conditions that county maintenance crews and ODOT may follow without the need to consult with DEQ or obtain a specific solid waste letter of authorization or case-specific review. DEQ may approve other uses of asphalt grindings that are not listed in the standing beneficial use table through a case-specific review with ODOT or local maintenance crews. ODOT has specifically asked DEQ to identify a statewide solution that allows ODOT to avoid having to obtain a solid waste permit or consult with DEQ for each situation. DEQ believes that the proposed standing beneficial use for asphalt grindings clarifies DEQ's approval for certain uses, is consistent with past case-specific evaluations of grindings and with DEQ rules, and meets ODOT's needs to understand what the requirements are to manage certain solid wastes without requiring that state or local transportation departments obtain DEQ permits. This approach will save both state agencies as well as county and city road departments time and money and ensure that asphalt grindings are not placed where they may impact aquatic organisms.* *DEQ understands that ODOT has allowed contractors through specific contract language to take and reuse asphalt pavement, grindings, or other excavated material from ODOT projects. Contractors need to meet DEQ rules and requirements for use of this waste. DEQ is committed to working*

	with ODOT and local road maintenance departments to identify and resolve issues regarding use of asphalt waste.

Comment 18	Concern that DEQ may require solid waste permits for all ODOT asphalt storage sites. This could be problematic for storage sites where end use of the stored asphalt has not yet been determined. ODOT allows contractors to keep and use asphalt on other projects and is concerned that ODOT is now liable for asphalt that contractors use outside of the ODOT prism. Returning pavement to an asphalt plant requires hauling that may increase the carbon footprint; landfilling is also likely to have negative environmental impacts. (26)
Response	*Indefinite storage of solid waste without an identified end use could create environmental impacts. DEQ remains committed to working with ODOT on these issues to come to an acceptable solution that meets both agencies' needs. DEQ believes a case-specific beneficial use determination that establishes safe storage criteria might allow for long-term storage of asphalt grindings or other solid waste that ODOT or local government road maintenance crews eventually intend to use.*

Comment 19	Regarding the use of asphalt paving or grindings in 340-093-0270(5)(a), confirm that asphalt producers are not required to apply for any permit or pay any reporting fees, as might be required for a Tier One review. The reporting requirements are confusing. Are there any reporting requirements if the material is being used in accordance with a standing beneficial use in the table? (5)
Response	*We have revised OAR 340-093-0270(4) to clarify which standing beneficial uses require reporting. The beneficial use of asphalt pavement or grindings will not require fees or reporting, if conducted in accordance with the standing beneficial use described in OAR 340-093-0270(5)(a). If the material or proposed use does not meet the conditions for a standing beneficial use in 340-093-0270(5)(a), then a Tier One application may be required for DEQ approval. A fee is required for a case-specific beneficial use determination approved as a Tier One determination.*

Comment 20	Does OAR 340-093-0270(2) mean that any excavation contractor that may supply recycled asphalt to an asphalt producer has to comply with all the reporting conditions? (5)
Response	*OAR 340-093-0270(4) in the revised rules does not require reporting to DEQ. The intent is to ensure that a person receiving a solid waste knows what they are getting and what uses are approved under the rules. In the case of asphalt paving or grindings, this should be a simple exchange of information based on knowledge of the material. The excavator contractor should confirm with the asphalt producer that it is asphalt from a road, and is approved for use as aggregate in new asphalt pavement.*

Comment 21	The standing beneficial use for asphalt shingle waste may make sense for traditional asphalt shingle waste, but may not make sense in terms of environmental and health protection or unknown and/or synergistic interactions when nanotechnology coatings have been applied to the asphalt shingles. (22)
Response	*DEQ agrees that the use of nanotechnology or other innovative materials*

	presents a concern for future uses of asphalt shingle waste, and intends to consider this in implementation of the proposed rules. Traditional components of asphalt shingles are generally bound up in the asphalt matrix and unlikely to be released at concentrations of concern. Oregon State University conducted research on the reuse of waste materials and published findings in Environmental Impact of Construction and Repair Materials on Surface and Ground Waters, National Cooperative Highway Research Program, Report 443, 2000.This research included evaluation of roofing shingles and notes that although the presence of sealers and preservatives increases the risk, when mixed with asphalt or concrete in final form, there was no evidence of harm to test organisms.

Comment 22	Revise standing uses for dredged sediment, foundry sand, and soil to restrict "contacting waters of the State." (18)
Response	*DEQ has made this revision.*

Comment 23	Change "chemical" to "hazardous substance" in OAR 340-093-0270(5)(c). (18)
Response	*DEQ has retained the word "chemical" because the water quality analysis is not limited to whether a contaminant is a hazardous substance.*

Comment 24	Use of concrete, Portland cement and masonry mortar containing hazardous substances from foundry sand, soil, steel slag, bottom ash should not be allowed in residential areas. (18)
Response	*For these beneficial uses, hazardous substances must be below occupational risk-based concentrations in the waste. Once incorporated into concrete, etc., any hazardous substances present will generally be bound up in the finished product and at concentrations significantly lower than in the original waste material. For these reasons, we believe the conditions on use will be protective even for residential areas.*

Comment 25	The standard "placed where it will not adversely impact waters of the State due to leaching" is unclear. Recommendations offered for developing guidance. DEQ should produce guidance before the comment period is closed or at least before this rule is put before the EQC. (1), (4)
Response	*DEQ has made revisions clarifying that the material must not be placed in contact with waters of the State and to remove the leaching reference. While the draft rule language does not specify how an evaluation for impacts to waters of the State must be conducted, leaching to groundwater values that can be used to assess this pathway are available in DEQ's Risk-Based Decision Making Guidance. Site-specific factors may also be taken into account, such as dilution and attenuation factors, assessment of leaching potential through leaching tests, and analysis of relevant transport pathways. In using such factors, applicants must be able to demonstrate that leaching is not a concern. DEQ is preparing a rule implementation plan that will include consideration of guidance after rules adoption.*

Comment 26	Request language be added in OAR 340-093-0270 that prohibits the beneficial use of the following materials in state certified wellhead protection

	areas: (5)(d) dredged sediment not approved for in-water use, (5)(f) foundry sand, and (5)(j) soil from cleanup sites used as construction fill, utility trench fill, or road base. These materials have the potential to contaminate groundwater. Case-specific beneficial use performance criteria in OAR 340-093-0280 should include a provision that considers state-certified Source Water Protection Areas. (25)
Response	*One of the conditions for these standing beneficial uses is that placement of solid waste on land must not adversely impact waters of the state. While this may allow some beneficial use of waste within a state certified wellhead protection area, DEQ believes that this language will assure protection of groundwater in such areas. Our understanding is that local governments could impose an ordinance restricting activities in well-head protection areas, but it would not be appropriate for DEQ to apply such restrictions statewide.*

Comment 27	Regarding OAR 340-093-0270(5)(g), DEQ lacks jurisdiction over log yard fines. If DEQ disagrees, suggest revisions to the proposed standing beneficial uses including identifying uses for unscreened and separated materials. (8), (9), (11), (13), (14), (15), (18), (20), (21), (24) Recommend defining the term "soil amendment" to include incorporating the wood waste into the soil and limiting the amount that can be applied to that which is necessary to improve specific physical properties of the soil.(6) Modify to allow berms to be made of log yard clean up material if landscaped. Only preclude soil berms that are not landscaped and perceived to create a risk to human health, welfare or the environment. (12) Add language requiring that log yard fines do not contain petroleum product, chemical treatment or point contamination. (18)
Response	*DEQ will remove log and mill yard fines from the table of standing beneficial uses to address the majority of comments. See also the response to Comment 32 on wood waste below.* *Related terms (e.g., log yard fines) are not defined in our rules and are open to interpretation. Additionally, there appear to be too many variables in the material and potential uses to adequately cover this category as a single standing beneficial use. Many existing log decks, log yards, or old wood waste landfills have solid waste permits and we can address management of solid wastes through those permits. If not, a person requesting DEQ approval can apply through the case-specific review process.* *DEQ's main concern with log yard fines is that they not be placed in thicknesses that will impact surface water or groundwater due to stormwater runoff or leaching.*

Comment 28	Electric Arc Furnace (EAF) steel slag within SIC code 3312 from Cascade Steel Rolling Mills is not within the statutory definition of solid waste. If the department insists on considering EAF steel slag as a solid waste, add a standing beneficial use for steel slag to the table in OAR 340-093-0270(5) that allows use of Cascade Steel's EAF steel slag in road construction,

	construction aggregate, drainage system construction, and railroad bed with conditions prohibiting the material from being in contact with stagnant surface water. (19)
Response	*DEQ considers steel slag to be a solid waste. Once the rules are adopted, we will address the request to beneficially use steel slag for construction fill, drainage, railroad bed, or other uses on a case-specific basis as provided for in OAR 340-093-0280 and -0290.*

Comment 29	Concern that the proposed rules would require street sweepings be picked-up within 6 months and reused winter sand and gravel to be separated by screening. The pick-up and screening would be time consuming and costly. Generally, sanding material ends up either being incorporated into road shoulder rock or collecting in grasses of the roadside ditch for eventual removal with the ditch-cleaning program. (10) There are some instances where ODOT cannot sweep or pick up winter sand and gravel within the six month timeframe identified in the standing beneficial use table. There are new technologies that may be more efficient than screening to separate reusable materials from street sweepings. Suggest replacing "separated from street sweepings by screening" with "separated from street sweeping material."(25)
Response	*DEQ has added language to the standing beneficial use for street sweepings that in addition to 6 months of application addresses material that is covered and re-exposed after snowmelt. Additionally, we've included the suggested revision related to screening. The requirement to pick up and screen applies to the materials used for winter sanding that a local or state road maintenance crew wishes to reuse for sanding. DEQ worked with ODOT to evaluate various reuses of road sanding wastes and ODOT screened and tested various size fractions of winter sanding wastes. The wastes do collect contaminants that DEQ is concerned may leach or run-off into water bodies. DEQ considers the risks of leaching or impact to water to be acceptable if winter sanding wastes are screened or separated and only the sand fraction reused for additional sanding. If ODOT or a road department wishes to reuse the larger fraction or finer fraction of sanding wastes for other uses then DEQ will work with that department to complete a case-specific beneficial use determination.*

Comment 30	The use of street sweeping fines as construction fill, utility trench fill, or roadbase should be designated a standing beneficial use. (10), (16)
Response	*DEQ has evaluated various uses of street sweepings and reviewed analytical data provided by ODOT to determine which uses may be appropriate as standing beneficial uses. Because of the statewide variability in sources and potential hazardous substance concentrations, DEQ believes that most requests for beneficial use of street sweepings will need to be determined through case specific reviews as provided for in OAR 340-093-0280. Note that while DEQ identified standing uses for dredge materials and soil from cleanup sites, which also vary considerably in hazardous substance concentrations, both of these materials require some DEQ oversight through either the water quality program or cleanup program. Oversight through these DEQ programs provides some of the certainty that would otherwise be*

	required through solid waste regulation. This is not the case for street sweepings.

Comment 31	Suggest DEQ expand the standing beneficial uses for wood-derived bottom ash to include road and building foundations, trench backfill, and similar uses. (3), (12), (24)
Response	*DEQ is concerned about the variability in bottom ash from a toxicity or contaminant standpoint depending on the source of the fuel burned. DEQ can develop conditions on use on a case-specific basis. We plan to address the types of uses suggested through the OAR 340-093-0290 Case-Specific Review Procedures.*

Comment 32	Regarding OAR 340-093-0270(5)(o), wood residuals are not solid waste, they are neither useless nor discarded. Object to the use of the term "wood waste." These are valuable materials with significant markets. Saw dust and wood chips when used as mulch for streambank and slide stabilization are not solid waste. By including "wood waste" as a standing beneficial use there is the inference that wood residuals sold for purposes other than fuel are within the scope of the rule and regulated as wastes. (8), (9), (10), (11), (13), (14), (15), (20), (21), (24), (26) Suggestions to retain or modify the wood waste standing beneficial use, including chemically treated or contaminated wood, wood containing glue or resigns, paint, and petroleum. (3), (12), (27) Add paper and pulp and paper wood derived wastewater treatment plant sludge used as a fuel source in industrial boilers applicable to DEQ air quality rules as standing beneficial uses. (27) Recommend that DEQ state biomass is not solid waste. Delete OAR 340-093-0270(o) or at the least revise and include biomass as a standing beneficial use. Biomass is not a solid waste and cannot meet the criteria of OAR 340-093-0270(1)(c) to limit hazardous substances to comparable raw materials or commercial products or to acceptable risk levels because biomass is variable and there is no comparable commercial product. (8), (9), (11), (13), (14), (15), (20), (21), (24), (26)
Response	*DEQ has removed the proposed 340-093-0270(5)(o) "wood waste,…" from the table of standing beneficial uses as the most direct way to address these concerns. Removing this standing beneficial use also addresses DEQ concerns about adequately referencing the range of air quality permit requirements for the burning of various wood materials.* *Wood may be solid waste, depending on the circumstances of its generation and use. The term "wood waste" has a specific definition in the current solid waste rules under OAR 340-093-0030(95). DEQ's solid waste program has not actively regulated the management of wood waste unless we have had reason to believe that it is not being managed in a manner protective of human health and the environment, such as land application in large quantities as a means of disposal. If a person requests DEQ clarification or approval for the use of wood residuals, pulp and paper, etc., we will address*

	them as case-specific beneficial use applications.

OAR 340-0280 Case-Specific Beneficial Use Performance Criteria

Comment 33	Regarding OAR 340-0280(3) "The use will not create an adverse impact to public health, safety, welfare, or the environment," concern that any use of almost any material is going to have some adverse environmental impact (*e.g.,* energy consumption to transport it to the customer, some hazardous substance could leach from the material). One could argue, therefore, that few if any proposed beneficial uses meet this requirement. The question ought to be whether recycling the material in the manner proposed will have a net adverse environment impact compared to disposing of the material and using virgin material instead. I suggest the following wording…"Taking into account the environmental benefits of the proposed beneficial use, it will not create a net adverse impact to public health, safety, welfare or the environment and satisfies the following requirements:" (2)
Response	*We have not included this specific language in the rules. DEQ drafted the beneficial use rules to allow for some impact if the use is productive. This is a significant policy component of the proposed rules. The rules allow some concentration of hazardous substances to be in materials placed on the land as long the concentrations are below levels protective of human health and the environment. The draft rules utilize a "no adverse impact" approach, defined by acceptable risk levels (10-6 cancer risk and a hazard index of 1 for human health) and the other performance criteria (e.g., objectionable odors). This is a risk management decision which balances allowing the use of solid wastes with relatively low concentrations of hazardous substances against the environmental benefits of resource recovery.*

Comment 34	Tier One for case-specific review procedures should be defined to include the beneficial use of material that is substantially the same as clean fill. This is consistent with the criteria for obtaining a permit exemption for disposal of inert wastes at a specified location, and with the standards for issuing short-term letters of authorization. (16)
Response	*"Clean fill" and solid wastes DEQ determines to be substantially the same as clean fill are exempt from the requirement to obtain a solid waste permit for disposal under OAR OAR 340-093-0050(3)(c) and 340-093-0080(2); and therefore do not require a beneficial use determination. DEQ will review requests to approve material as "clean fill" outside of the beneficial use rules. DEQ is considering guidance to clarify "clean fill" requirements.* *If a material such as street sweepings does not meet the definition of "clean fill" (e.g., due to the presence of hazardous substances such as lead), and does not meet the requirements of a standing beneficial use determination, the beneficial use rules will provide a more consistent and well-defined process to replace permit exemptions or letter authorizations. A Tier Two application will likely be required because use of the material will be dependent on the concentrations of hazardous substances and the need to compare to risk-based screening levels.*

Comment 35	Regarding OAR 340-093-0280(3)(c), to avoid all confusion, consider the following wording for the lead clause in (c): "Hazardous substances in the material satisfy one of the following conditions:" (1)
Response	*We have revised the rules to address this suggestion.*

Comment 36	Develop background criterion for barium at the 90th percentile concentration. Background concentrations of barium in native soils throughout the nation and especially in the western U.S. are substantially higher than the current criterion for barium of 82 mg/kg. (4)
Response	*This request is more appropriately addressed through guidance rather than through the proposed rules as the comment applies to any situation where DEQ considers background concentrations of metals. DEQ is considering a project to develop regional background concentrations for metals that are representative of the range in concentrations that may be found regionally within Oregon to improve upon default background concentrations. DEQ recommends that applicants who intend to land apply wastes pursue a site-specific background evaluation as an alternative to the default background concentration of 82 mg/kg for barium.*

Comment 37	Recommend that DEQ allow for consideration of whether endangered species are present or absent at a particular beneficial use site when evaluating the acceptability of material for beneficial use. Several of the clean fill criteria for metals are based on DEQ Level II Ecological Screening Level Values (SLVs) for protection of endangered species based on effects to individuals (DEQ 2001). However, the SLVs for protection of population-level effects are five times higher [See Section (9)(c)(i) in DEQ 2001]. If no endangered species are present at the beneficial use site, the SLVs for protection of population-level effects are the more appropriate criteria. (4)
Response	*DEQ agrees that endangered species should be a consideration. The purpose of the standing beneficial use table is to identify those beneficial uses that DEQ does not need to review on a site specific basis as long as certain criteria are met (e.g., covering to minimize exposure). Determining if endangered species are present and the appropriate screening level values can be part of a case-specific beneficial use application for material applied at a specific location. This is one of the advantages of the proposed rules, they provide different options (standing beneficial uses and case-specific beneficial uses) for solid wastes that are not "clean fill".*

Comment 38	Opposition to any beneficial use of incinerator ash and to any future granting of a beneficial use designation for incinerator ash as a case-specific beneficial use. Commentor cites several reasons including hazards associated with ultrafine particles and nanomaterials. (22)
Response	*DEQ cannot preclude a future application for the beneficial use of incinerator ash. DEQ is considering more detailed guidance for how to evaluate the potential risks associated with a case-specific beneficial use. DEQ is tracking emerging environmental issues associated with nanotechnology and as staff become more informed, we will consider new scientific information on nanotechnology environmental risks.*

OAR 340-093-0290 Case-Specific Review Procedures

Comment 39	Application requirements and fees for the two Tiers seem somewhat arbitrary. It would be helpful if an explanation was provided as to why requirements between the Tiers vary. Why are land use determinations treated differently from other reuse determinations? If land application is restricted to Tier Two analyses, then Tier Two should allow knowledge of process to determine contaminants and comparison of product pollutant levels to comparable raw materials and commercial products. (26)
Response	*DEQ established tiers because we anticipate a wide range of wastes and beneficial uses and therefore a wide range in the information necessary to approve a beneficial use and the time and therefore fees necessary for DEQ staff to review applications. Rather than have a single set of information requirements and fees that may be too high for simple applications and too low for others, the tiered approach gives us three options. Most applications are likely to be Tier Two. The main difference between Tier One and Tier Two is that Tier One approvals may be possible based on knowledge of process alone. Tier Two involves a screening level risk analysis due to the presence of hazardous substances which, if the material is land applied, presents an exposure concern for people and the environment. The main difference between Tier Two and Tier Three is that Tier Two should involve conventional materials and uses, whereas Tier Three may involve innovative or unfamiliar materials and uses that require significant review time, testing, or pilot studies to approve. DEQ is considering guidance on what will be considered acceptable information to be submitted for case-specific beneficial use determinations. In addition, DEQ intends to review the rules after some period of implementation to determine whether there is a need to revise and refine certain parts of the rules, including the tiered approach and fees.*

Comment 40	Regarding OAR 340-093-0290, submittal of a material management plan, document future land use, etc., it is not clear what would trigger the listed DEQ requests. It is not clear why these documents would be required for standing beneficial use determinations. (26)
Response	*The proposed OAR 340-093-0290 Case-Specific Review Procedures only apply to case-specific reviews, not to the OAR 340-093-0270 Standing Beneficial Use Determinations. Because DEQ cannot anticipate all the different waste and use scenarios that may be presented for review, the need for information listed in subsection (7) will be based on individual applications. DEQ is considering guidance to help clarify the requirements for case-specific application materials.*

Comment 41	Regarding OAR 340-093-0290(10) Revocation of a case specific beneficial use determination and clean up of material may not be affordable due to a change in risk information. For example if DEQ approved material as fill for use on highway projects, clean up might entail tearing up and rebuilding miles of constructed highways. The rule should allow pre-approved materials to remain in place, and long range plans can be made to manage material and associated risks. (26)
Response	*Even if risk information changes, DEQ is unlikely to regulate previously*

	approved beneficial uses of material as solid waste, unless there is reason to believe that it poses a significant threat to human health or the environment. DEQ requiring the tearing up and rebuilding of miles of highway is a very unlikely scenario. If risk levels are exceeded, managing materials in place, developing management plans, and institutional controls are more likely alternatives. DEQ will work with responsible parties to make such decisions on a case-specific basis, if the need arises.

Comment 42	Regarding OAR 340-093-0260(4), department review of solid waste uses authorized before the effective date of this rule, the language does not provide any triggers for re-evaluation of prior DEQ determinations. Determinations should not be revoked unless there is new information regarding pollutants or associated risks. (26)
Response	*We have not developed language to specify triggers. Nevertheless, as noted, DEQ may require review of previous authorizations if there is a concern for adverse impacts due to hazardous substances. DEQ may also conduct a review if a new beneficial use determination offers advantages to an applicant over the conditions of a previous authorization.*

Comment 43	Suggest revisions so it is clear that if the department revokes a case-specific beneficial use determination or a demonstration project authorization, the solid waste material becomes subject to solid waste regulation. As written, the section suggests that the department must take some action for solid waste regulation to apply. (18)
Response	*DEQ has made revisions to 340-093-0290(10) to address this comment.*

General Comments

Comment 44	Support for adoption of the proposed rules, with comments. Like many challenging efforts, this rule is a reasonable middle path forward. The rules advance the common objectives of decreasing disposal of useful materials, increasing opportunities for beneficial use, providing greater regulatory certainty, and streamlining the methods by which such opportunities are evaluated and implemented. (3), (4), (7), (12), (18)
Response	*DEQ appreciates the contributions and support from the many stakeholder groups that contributed to the rulemaking process.*

Inventory of Public Comment Responders
Beneficial Use of Solid Waste Proposed Rules Notice October - November 2009

	Name	Last Name	Organization	Address, Contact Info	Comment Format	Received
1	Mark	Morford	Stoel.com	JMMorford@stoel.com	Email – 1 page	10/14/09
2	Mark	Morford	Stoel.com	JMMorford@stoel.com	Email – 2 pages	11/16/09
3	Mark	Labart	Biomass One	2350 Avenue G White City, Oregon 97503	Email – 1page attachment	11/19/09
4	Todd	Thornburg	Anchor QEA,LLC	6650 SW redwood Lane, Suite 333 Portland, OR 97224	Email – 3 page attachment	11/19/09
5	Dave	Vogt	Hooker Creek Companies, LLC	dvogt@hookercreek.net	Email – 1 page	11/19/09
6	Carl	Nadler	Citizen	cnadler@qnect.net /2108 Garrison, The Dalles, OR 97058	Email – 1 page	11/22/09
7	Martha B	Cox	Columbia Steel Casting Co.,Inc.	10425 N. Bloss Ave. Portland, OR 97203	Email – 1 page attachment	11/23/09
8	David	Like	Hampton Lumber Mills, Inc. -Tillamook Division	311 E. third St., Tillamook OR 97141	US Mail – 4 pages	11/23/09
9	Malissa	Maynard	Duraflake Particleboard / Flakeboard	2550 Old Salem Road NE , P.O. Box 428 Albany, OR 97321	US Mail – 3 pages	11/23/09
10	Jon	Oshel	OACES	1201 Court St NE Salem, OR 97301	Email attachment – 2 pages	11/23/09

11	Dale	Riddle	Seneca Sawmill Co.	PO Box 851, Eugene, OR 97440-0851	Email attachment – 7 pages	11/23/09
12	Russell	Strader	Boise Cascade, LLC	PO Box 50, Boise, ID 83728	Email attachment – 3 pages	11/23/09
13	Michael D	Tompkins	Georgia Pacific Wauna Mill	92326 Taylorville Road, Clatskanie, OR 97016	Email attachment – 4 pages	11/23/09
14	Dee	Brown	The Collins Companies/Fremont Sawmill	P.O. Box 1340, Lakeview, OR 97630	Fax – 5 pages including cover sheet	11/24/09
15	Randy	Crockett	Dr Johnson Lumber Company	P.O. Box 66 Riddle, OR 97469	Fax - 4 pages no cover sheet	11/24/09
16	Roger	Dilts	Clean Water Services	2550 Southwest Hillsboro Highway Hillsboro, Oregon 97123	Email – 1 page attachment	11/24/09
17	Ray	Hendricks	Portland General Electric	121 SW Salmon Street, 3WTCBR05, Portland OR 97204	Email – 3 pages	11/24/09
18	Dean	Kampfer	Waste Management of Oregon	NWR Region Office 7227 NE 55th Ave, Portland, OR 97218	Email attachment – 15 pages	11/24/09
19	Daniel	Lee	Cascade Steel Rolling Mills, Inc.	3200 N Highway 99W (PO Box 687) McMinnville, Oregon 97128-9399	Email – 7 page attachment	11/24/09
20	Kenneth	Li	Georgia Pacific Toledo LLC	1400 SE Butler Bridge Road, Toledo, OR 97391	Email attachment – 4 pages	11/24/09
21	Bruce	Martin	Blue Heron Paper Company	419 Main Street, Oregon City, OR 97045	Email – 3 page attachment	11/24/09
22	Joseph	Miller	Physicians for Social Responsibility, Oregon Chapter	812 SW Washington Street, Suite 1050, Portland, OR 97204	Email – 4 pages	11/24/09

23	Kristan S.	Mitchell	ORRA Oregon Refuse & Recycling Association	680 State Street, Suite 100, PO Box 2186, Salem, Oregon 97308-2186	Email attachment -3 Pages	11/24/09
24	Ellen	Porter	Roseburg Forest Products	P.O. Box 1088, Roseburg, OR 97470	Email attachment – 5 pages	11/24/09
25	David G.	Staff	Portland Water Bureau	1120 SW 5th Avenue, Room 600, Portland OR 97204	Email attachment – 1page	11/24/09
26	Doug	Tindall	Oregon Department of Transportation	355 Capitol St. NE, Salem, OR 97301	Email attachment – 6 pages	11/24/09
27	Kathryn	VanNatta	Northwest Pulp and Paper	1300 114th Avenue south Bellevue, WA 98004	Email – attachment 2 pages	11/24/09

State of Oregon
Department of Environmental Quality **Memorandum**

Presiding Officer's Report

Date: Nov. 19, 2009

To: Environmental Quality Commission

From: Audrey O'Brien
Larry Brown
Craig Filip

Subject: Presiding Officer's Report for Rulemaking Hearings
Title of Proposal: Beneficial Use of Solid Waste
Hearing Dates, Times and Locations:

Nov. 17, 2009, 6 pm
DEQ Portland Office
811 SW Sixth Avenue, 10th floor, Room EQC-A
Portland, Oregon 97204-5696

Nov. 17, 2009, 6 pm
DEQ Eugene Office
165 E. 7th Avenue, Suite 100, Willamette Meeting Room
Eugene, Oregon 97401

Nov. 17, 2009, 6 pm
DEQ Bend Office
475 NE Bellevue Drive, Suite 110, Main Conference Room
Bend, Oregon 97701

On Nov. 17, 2009, DEQ convened three rulemaking hearings around Oregon on the proposed beneficial use of solid waste rules. Each hearing started at 6 p.m., began with an informational presentation of the proposed rules, and allowed time after the presentations for questions and discussion. Tom Roick explained the rule-making proposal at the Portland hearing and Bob Barrows explained the proposed rulemaking at the Eugene hearing.

Three people attended the Portland hearing and three people attended the Eugene hearing. No one attended the Bend hearing. No attendee at the Portland or Eugene hearings provided formal verbal comments.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Relationship to Federal Requirements

Beneficial Use of Solid Waste Rulemaking

Answers to the following questions identify how the proposed rulemaking relates to federal requirements and potential justification for differing from, or adding to, federal requirements. This statement is required by OAR 340-011-0029(1).

1. Is the proposed rulemaking different from, or in addition to, applicable federal requirements? If so, what are the differences or additions?

Yes, the proposed rulemaking is different from federal requirements. The federal Resource Conservation and Recovery Act, Subtitle D, only applies to the management of municipal solid waste landfills. There are no federal requirements that address other solid waste management activities, except for federally designated hazardous waste under the Resource Conservation and Recovery Act, Subtitle C. The state definition of solid waste excludes hazardous waste, and therefore excludes hazardous waste from this rulemaking.

The proposed rules would amend existing state solid waste rules to include "standing" beneficial use determinations and criteria for case-specific beneficial use determinations. State authority for this rulemaking is Oregon Revised Statute 459.045, Solid Waste Management.

2. If the proposal differs from, or is in addition to, applicable federal requirements, explain the reasons for the difference or addition (including as appropriate, the public health, environmental, scientific, economic, technological, administrative or other reasons).

The purpose of these rules is to establish a process for Oregon Department of Environmental Quality review of proposals to use solid wastes beneficially as an alternative to disposal. Two examples are using scrap asphalt roofing shingles as a component of asphalt pavement for roads and using dredged sediments for fill materials on construction projects. Currently, DEQ does not have an appropriate process or funding mechanism for responding to and authorizing requests by generators to use wastes beneficially. These rules will allow DEQ to issue beneficial use determinations rather than disposal permits for appropriate uses. Beneficial use of solid waste conserves energy, reduces the need to extract virgin resources, reduces demand for disposal facilities, and promotes sustainability.

3. If the proposal differs from, or is in addition to, applicable federal requirements, did the Department consider alternatives to the difference or addition? If so, describe the alternatives and the reason(s) they were not pursued.

One alternative is to continue using short term disposal permits, staff letter approvals, or rejections to respond to beneficial use proposals. However, these mechanisms do not provide a sound regulatory basis for decisions under Oregon law and stakeholders have expressed concerns that the current review process is cumbersome and time-consuming. The proposed beneficial use rulemaking will provide a more streamlined alternative, save resources, and make it easier for businesses and other persons to understand and obtain the necessary approvals to use wastes beneficially.

DEQ has reviewed how other states regulate the beneficial use of solid waste. There is no standardized approach that is used consistently among the states. While other state approaches have helped inform this rulemaking process, these rules have been formatted to complement existing Oregon rules, based on the types of industries and wastes produced in Oregon and the waste management practices of Oregon industries.

Stakeholders have commented that the beneficial use of solid waste rules should be no more stringent than the federal requirements for recycling of hazardous waste. Federal hazardous waste rules do not apply to solid waste as defined under Oregon solid waste laws. The U.S. Environmental Protection Agency recently posted revisions to hazardous waste recycling regulations in the Federal Register (73 FR 64668). However, DEQ has not adopted these new federal requirements for hazardous waste, nor does DEQ consider following the federal recycling requirements for hazardous waste to be an acceptable approach for the beneficial use of solid waste in Oregon. DEQ plans to tailor beneficial use regulations to the types of wastes and waste management practices experienced and encouraged under state law in Oregon.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Chapter 340
Proposed Rulemaking
STATEMENT OF NEED AND FISCAL AND ECONOMIC IMPACT

Title of Proposed Rulemaking	Beneficial Use of Solid Waste, OAR 340-093-0260, 340-093-0270, 340-093-0280, 340-093-0290, 340-097-0120
Statutory Authority or other Legal Authority	ORS 459.045, 459.215, 459.235, 459.A025, 468.065
Statutes Implemented	ORS 459.045, 459.215, 459.235
Need for the Rule(s)	Oregon does not have an appropriate process for responding to or authorizing requests for the beneficial use of solid wastes. Adopting beneficial use rules will clarify the Department of Environmental Quality's (DEQ) authority and provide criteria for reviewing proposed beneficial uses of solid waste. The proposed rules will also authorize certain standing beneficial uses by rule.
Documents Relied Upon for Rulemaking	• ASTSWMO 2006 Beneficial Use Survey Report (Association of State and Territorial Solid Waste Management Officials, November 2007) http://www.astswmo.org/publications_solidwaste.htm. • State Models for Beneficial Use (DEQ 8/4/08) http://www.deq.state.or.us/lq/sw/disposal/beneficialusemeetings.htm • Solid Waste Reviews (DEQ 9/9/08) http://www.deq.state.or.us/lq/sw/disposal/beneficialusemeetings.htm
Requests for Other Options	Pursuant to ORS 183.335(2)(b)(G), DEQ requested public comment on whether other options should be considered for achieving the rule's substantive goals while reducing negative economic impact of the rule on business.
Fiscal and Economic Impact, Statement of Cost Compliance	
Overview	DEQ is proposing rules to encourage and regulate beneficial uses of solid waste as an alternative to disposal. Beneficial use typically involves using an industrial waste in a manufacturing process to make a product, as a substitute for fill materials, or to amend soils. Examples include using spent foundry sand from steel manufacturing to replace virgin sand in concrete, using scrap asphalt roofing shingles as a component of asphalt pavement, and using dredged sediments for construction fill. Using solid waste beneficially conserves energy, reduces the need to extract resources, reduces demand for disposal facilities, and promotes sustainability. The proposed rules will establish a process and criteria for DEQ review and approval of proposals to use solid wastes beneficially. Under existing rules, waste generators generally either request DEQ to issue a specific solid waste disposal permit to cover a proposed use or dispose of the wastes in permitted solid waste landfills. The proposed rules will allow DEQ to issue beneficial use determinations that will operate in lieu of disposal permits for approved uses. The proposed rules will also authorize by rule certain beneficial uses of solid waste that have low potential for environmental impact and in some cases have been endorsed by U.S. EPA or other states. These standing beneficial uses identified in the rule will not require DEQ solid waste pre-authorization. The proposed rules include fees to cover DEQ's costs of reviewing proposed beneficial uses that are not standing beneficial uses. Proposed fees are tiered based on the estimated staff

time required to review different types of beneficial use applications and reports. The proposed fees range from $250 to $5,000 as follows:

- A Tier One beneficial use determination: $1,000;
- A Tier Two beneficial use determination: $2,000;
- A Tier Three beneficial use determination: $5,000;
- Annual extension to a demonstration project authorization: $1,000;
- The review of an annual or other report: $250.

These fees are comparable to fees charged by other states for beneficial use applications.

Fiscal and Economic Impacts

If adopted, the proposed rules will cover any person or entity who generates solid waste that may currently require disposal under a solid waste disposal permit and who proposes to use those wastes beneficially. Waste generators may include individuals, large and small businesses, organizations, local and regional governments, state and federal agencies, and any other entities.

DEQ expects the proposed beneficial use rules to reduce costs for DEQ as well as most generators of solid waste covered by the proposed rules. The proposed rules are designed specifically for beneficial use determinations and will make the process for approving the beneficial use of wastes more predictable, reliable, and efficient for everyone involved.

Waste generators that use waste beneficially will avoid the costs of disposal at a permitted landfill or of obtaining a separate disposal permit for a proposed use and the managing of wastes under that permit. They will incur costs for a beneficial use determination, but DEQ expects those costs to be lower than costs for disposal in most cases. For standing beneficial uses authorized in the proposed rules, waste generators will simply document that they meet the criteria for the standing use and maintain records of that use. Some of the standing beneficial uses will require a $250 annual reporting fee. For uses that are not standing beneficial uses, the waste generator will need to apply for a beneficial use determination and pay the proposed fees. In most cases, DEQ expects the costs of preparing the application for a beneficial use determination to be lower than for a disposal permit because the beneficial use application process will require less effort. Waste generators may also incur costs for ongoing management of wastes under a beneficial use determination, including record keeping and for some uses, monitoring and annual reporting to DEQ. To offset costs, some generators may derive revenue from the sale of materials for beneficial use. Finally, although the rules are designed to promote the beneficial use of materials, generators may continue to dispose of wastes under existing rules. They are not required to obtain a beneficial use determination. Most businesses that choose to beneficially use a solid waste under the proposed rules will likely see economic savings as a result.

The proposed rules may provide economic benefits to the public as well. The beneficial use of wastes as substitutes for more costly materials in manufactured products or construction fill or for other purposes may lower the costs of producing those products or completing those projects. For example, using waste asphalt roofing shingles as a substitute for aggregate in asphalt reduces costs for new asphalt pavement. In some cases, those costs savings may be passed along to subsequent purchasers and the public.

The proposed rules may result in fewer tons of waste being disposed at permitted municipal and industrial solid waste landfills. These landfills will lose the disposal fees that would have been paid on any tons diverted, along with any associated profits. DEQ will also lose the solid waste tipping fee revenue that would have been generated from disposal at these landfills, and Metro may lose fee revenue from wastes diverted from Metro area transfer stations. Potential losses in disposal fee revenue to landfills, DEQ, or Metro depend on the waste streams diverted and are difficult to estimate.

Impacts on the General Public

Impacts on individuals that generate waste and want to use those wastes beneficially in lieu of disposal are described in the *Overview – Fiscal and Economic Impacts* above. Otherwise, impacts on the general public are expected to be minimal, as also described in the *Overview - Fiscal and Economic Impacts*.

Impacts to Small Business (50 or fewer employees – ORS183.310(10))	Small businesses most likely to be affected by these rules are small industrial operations, such as wood waste or construction/demolition operations, that generate solid waste and want to use those wastes beneficially in lieu of disposal. The potential impacts on these small businesses are described in the *Overview – Fiscal and Economic Impacts* above. As noted, businesses are not required to use wastes beneficially, so those that choose do to so under the proposed rules will likely realize economic savings. Impacts on other small businesses are expected to be minimal, as described for the general public in *Overview - Fiscal and Economic Impacts* above.	
Cost of Compliance on Small Business (50 or fewer employees – ORS183.310(10))	a) Estimated number of small businesses subject to the proposed rule	Unknown.
	b) Types of businesses and industries with small businesses subject to the proposed rule	Small industrial operations, such as wood waste or construction/demolition operations, that generate solid waste and want to use that waste for beneficial uses versus disposal.
	c) Projected reporting, recordkeeping and other administrative activities required by small businesses for compliance with the proposed rule, including costs of professional services	Businesses choosing to beneficially use wastes under the proposed rule must keep records of the solid wastes and associated beneficial uses. In some cases, record keeping may be no more than a business would already maintain. In other cases, the proposed rules may require additional laboratory testing to characterize wastes or demonstrate no adverse impacts to human health or the environment from the beneficial use. Certain beneficial uses may also require ongoing monitoring and reporting to DEQ.
	d) The equipment, supplies, labor, and increased administration required by small businesses for compliance with the proposed rule	Applying for and managing wastes under a BUD may require additional administration beyond that required for disposal. Whether any additional equipment or labor may be involved will depend on the type of waste and how it will be used beneficially.
	e) A description of the manner in which DEQ involved small businesses in the development of this rulemaking	DEQ did not seek out small businesses in developing this rulemaking because they are not likely to be significantly impacted. Industry representatives participated in stakeholder meetings and provided comments on the draft rules.
Impacts on Large Business (all businesses that are not "small businesses" under ORS183.310(10))	Requests DEQ receives for approval to use wastes beneficially most often come from large businesses that generate large volumes of industrial solid wastes. These businesses seek significant cost savings by reducing the need for disposal and associated fees. Such industries may include steel foundries, wood products manufacturers, and construction/demolition contractors. The potential impacts on these large businesses that generate waste and want to use those wastes beneficially in lieu of disposal are described in the *Overview – Fiscal and Economic Impacts* above. As noted in *Overview – Fiscal and Economic Impacts*, landfills that currently receive wastes that are diverted from disposal under the proposed rules will lose disposal fee revenue from those wastes.	
Impacts on Local Government	The potential impacts on local governments that generate wastes and want to use those wastes beneficially in lieu of disposal are described in the *Overview – Fiscal and Economic Impacts.* In addition, local governments may see modest cost savings from the use of waste materials or products derived from waste materials for road construction or other development projects. Metro may lose fee revenue from wastes diverted from Metro area transfer stations.	
Impacts on State Agencies other than DEQ	The potential impacts on state agencies that generate wastes and want to use those wastes beneficially in lieu of disposal are described in the *Overview – Fiscal and Economic Impacts.* Other state agencies most likely to be impacted are the Oregon Department of Transportation (ODOT) and Division of State Lands (DSL). The impacts would be positive for both. ODOT may	

	be able to use waste materials or products derived from waste materials for road construction projects, resulting in a net cost savings. DSL may apply royalties to management of sediments dredged from waters of the state and used beneficially in upland areas as fill material or for other purposes, resulting in fees paid to DSL for dredging projects.
Impacts on DEQ	The proposed rules provide a much more efficient process for DEQ's review of requests to use wastes beneficially and establish fees designed to cover DEQ's costs. Currently, DEQ reviews such requests as applications for short-term disposal with a $500 fee, which does not cover DEQ's costs, or in some cases without charging fees. The solid waste program has absorbed the uncovered review costs using the tipping fee on disposal at solid wastes landfills. To the extent the proposed rules divert wastes streams from disposal at permitted solid waste landfills, the solid waste program will see a reduction in revenue from the tipping fee charged for such disposal.
Assumptions	The key assumptions are that (1) the beneficial use of solid wastes is preferable to disposal, and (2) for most generators, applying for and managing a solid waste for a beneficial use under the proposed rules will cost less than disposal and therefore provide an economic incentive to use wastes beneficially.
Housing Costs	DEQ has determined that this proposed rulemaking will have no effect on the cost of development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single family dwelling on that parcel.
Administrative Rule Advisory Committee	In developing the proposed rules DEQ held four public meetings with stakeholders, maintained a mailing list and web site updating interested parties on the rule development process, provided draft rules to stakeholders for review and comment, and consulted with individual industries (e.g., wood products, steel foundries).

Prepared by	Tom Roick Printed name	3/31/10 Date
Approved by DEQ Budget Office	James Roys Printed name	4/1/10 Date

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Land Use Evaluation Statement

Beneficial Use of Solid Waste Rulemaking

Rules for DEQ approval of proposals to beneficially use solid wastes rather than dispose of them

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1. Explain the purpose of the proposed rules.

The purpose of these rules is to establish a process for Oregon Department of Environmental Quality review of proposals to use solid wastes beneficially as an alternative to disposal. Two examples are using scrap asphalt roofing shingles as a component of asphalt pavement for roads and using dredged sediments as fill material on construction projects.

The rules will allow DEQ to issue Beneficial Use Determinations (BUDs) rather than disposal permits for appropriate uses. Beneficial use of solid waste conserves energy, reduces the need to extract virgin resources, reduces demand for disposal facilities, and promotes sustainability.

2. Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program?

Yes X No

a. If yes, identify existing program/rule/activity:

The DEQ Solid Waste Program, through Oregon Administrative Rules (OAR) 340-093-0060 and 340-093-0070, requires that solid waste disposal permit applications include a statement of compatibility with the local comprehensive plan and zoning - a Land Use Compatibility Statement (LUCS).

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?

Yes No X (if no, explain):

The existing land use compliance procedures address issuance of solid waste disposal facility permits and require a LUCS before DEQ issues those permits. The proposed beneficial use rules authorize DEQ to approve the use of solid waste in instances where a solid waste disposal facility permit is not appropriate. Beneficial Use Determinations (BUDs) are a new, alternative approach to disposal permits, and the LUCS would be unnecessary or inappropriate for many BUDs. For example, DEQ may issue BUDs for using ground-up asphalt paving as a component of new asphalt paving and for using wood waste for hog fuel. A LUCS would not be relevant for such uses.

In other instances, DEQ may approve BUDs for the use of solid wastes as a replacement for virgin materials such as fill in building construction, road projects, or similar land applications. In these cases, DEQ would require a risk screening for hazardous substances to ensure an approved use adequately protects public health and the environment. For example, DEQ may evaluate whether spent foundry sand can be safely used as fill material on industrial versus residential zoned property. The risk screening would consider potential exposure pathways for present and future land uses where the material may be applied. As noted below, DEQ will require documentation of land uses for this screening, but a LUCS documenting that the proposed construction fill, road base material, or other proposed use was compatible with local comprehensive plan and zoning rules would not be appropriate or adequate for this purpose.

c. If no, apply the following criteria to the proposed rules.

Staff should refer to Section III, subsection 2 of the SAC document in completing the evaluation form. Statewide Goal 6 - Air, Water and Land Resources is the primary goal that relates to DEQ authorities. However, other goals may apply such as Goal 5 - Open Spaces, Scenic and Historic Areas, and Natural Resources; Goal 11 - Public Facilities and Services; Goal 16 - Estuarine Resources; and Goal 19 - Ocean Resources. DEQ programs and rules that relate to statewide land use goals are considered land use programs if they are:

1. Specifically referenced in the statewide planning goals; or

2. Reasonably expected to have significant effects on
   a. resources, objectives or areas identified in the statewide planning goals, or
   b. present or future land uses identified in acknowledged comprehensive plans.

In applying criterion 2 above, two guidelines should be applied to assess land use significance:
- The land use responsibilities of a program/rule/action that involved more than one agency, are considered the responsibilities of the agency with primary authority.
- A determination of land use significance must consider the Department's mandate to protect public health and safety and the environment.

In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination

3. If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the Department will use to ensure compliance and compatibility.

Before issuing a BUD, DEQ will determine that the proposed beneficial use of materials is protective of human health and the environment, and include conditions for approved use as needed. BUDs that involve land application of materials will be evaluated against risk-based screening criteria to ensure that air, land, water resources and public health are adequately protected. The screening criteria consider potential exposure pathways for present and future land uses. For BUDs involving land applications that may need to be restricted to certain land uses (e.g., fill for commercial vs. residential areas), DEQ will require the applicant to document the current and reasonably likely future land uses to complete the screening. This documentation may include, but is not limited to, checking in with the local land use jurisdiction and ensuring that the proposed use is compatible with the local comprehensive plan. For example, materials used on road projects may not require a description of actual land use, whereas, materials used as construction fill for commercial or industrial property may require land use information, including proximity to any sensitive ecological environments.