

## WASTE MANAGEMENT



# Columbia Ridge Landfill & Green Energy Plant

Columbia Ridge provides safe and professional disposal services for communities, businesses and industries primarily from Oregon and Washington. Located in north central Oregon, the site provides convenient truck and rail access. In addition, the site's dry climate and unique geology support superior environmental performance, while the rural locale allows for a 10,000-acre buffer sustainably managed for agriculture and wildlife. Columbia Ridge is also a platform for wind power and green technologies that use waste to generate renewable energy.

Columbia Ridge is a modern Subtitle D landfill that accepts primarily municipal solid waste (MSW or household waste) as well as industrial and special wastes. It is engineered with overlapping environmental protection systems that meet or exceed rigorous state and federal regulations and are subject to highly regulated monitoring and reporting requirements.

Columbia Ridge uses sophisticated monitoring protocols to verify that its environmental protection systems are operating properly. Monitoring data gathered by company and independent professionals is submitted to the Oregon Department of Environmental Quality (DEQ) and the US Environmental Protection Agency.

## Containment Design

Columbia Ridge has a multi-layer composite liner system that includes an engineered clay barrier and a 60-mil high-density polyethylene (HDPE) membrane to ensure that waste and wastewater (leachate) are contained and isolated from soil and groundwater.

## Groundwater Monitoring

The site's geology and hydrogeology provide unique natural protections because the groundwater is approximately 200 feet deep and separated from the waste by low permeability soils. Groundwater is monitored at seven wells, both upgradient and downgradient of the waste disposal footprint.

## Landfill Gas Management

Columbia Ridge manages landfill gas to generate renewable energy, reduce emissions, and prevent odor. The system collects 6,700 cubic feet per minute of landfill gas through more than 100 wells. A portion of the gas is sent to an on-site energy plant, with the remaining gas managed by flares per federal requirements.

### COLUMBIA RIDGE LANDFILL

18177 Cedar Springs Lane  
Arlington, OR 97812  
[www.wmnorthwest.com/landfill](http://www.wmnorthwest.com/landfill)

### HOURS OF OPERATION

6:00 a.m. – 4:30 p.m.  
Monday – Friday

### YEAR OPENED

1990

### PROJECTED LIFE REMAINING

143 years

### FACILITY ACREAGE

12,000 acres

### PERMITTED FOOTPRINT

700 acres

### REMAINING PERMITTED CAPACITY

329 million tons

### TONS PROCESSED ANNUALLY

2.74 million in 2017

### OWNERSHIP

Waste Management Disposal Services  
of Oregon

### PERMIT TYPE & PERMIT #

DEQ Solid Waste Permit #391

### EMPLOYEES

111



## Leachate Collection & Treatment

The leachate collection and treatment system consists of a highly permeable gravel drainage layer covering the entire landfill base, with perforated pipes at low points to collect and route leachate to a double composite-lined evaporation pond. It also includes a recirculation process that pumps leachate from the pond back into the landfill, to accelerate waste decomposition and enhance landfill gas production.

## Acceptable Material

- » Abrasive Blast Media
- » Agricultural Wastes
- » Animal Carcasses
- » Asbestos-Containing Material (Friable & Non Friable)
- » Auto Shredder Residue
- » Biosolids
- » Construction & Demolition (C&D) Debris CERCLA Wastes
- » Dredged Wet Sediments
- » Filter Cake
- » Incinerator Ash
- » Industrial & Special Wastes
- » Medical Waste (Treated)
- » Municipal Solid Waste (MSW) Petroleum Contaminated Soil Sludge
- » Treated Wood

## Unacceptable Material

- » Appliances
- » Batteries
- » Discarded Vehicles Hazardous Wastes
- » Loose Sharps
- » Tires
- » Used Oil

## Additional Services Provided

- » Electronic Waste Recycling
- » Household Recycling Drop-off
- » On-site Rail Spur
- » Transportation Services
- » White Goods Recycling

## Renewable Energy

The energy plant at Columbia Ridge uses landfill gas to generate renewable energy as part of Waste Management's increasing focus on extracting value from waste. Gas collected from the landfill powers 12 engines to produce 12.8 MW of electricity—enough to power 12,500 homes in Seattle through an agreement with the City of Seattle.

In addition, Columbia Ridge is home to 92 wind turbines with the capacity to generate more than 150 MW.

## Community Partnerships

Columbia Ridge is proud to be a valued community partner in ways that are visible in every direction across the Gilliam County landscape:

- » **Family-wage Jobs:** Columbia Ridge provides 111 family-wage jobs with full benefits, training and development opportunities.
- » **Infrastructure and Economic Development:** Columbia Ridge pays Gilliam County an annual host fee to support essential public sector services, capital improvements and economic development. WM voluntarily initiated the host fee agreement in 1990 as a demonstration of community partnership. In 2017, WM paid Gilliam County \$3.8 million in host fee payments.
- » **Community Donations:** WM donates generously to support youth and community vitality across Gilliam County. In 2017, WM's contributions totaled more than \$50,000—largely to support the chambers of commerce in Arlington and Condon, the Gilliam County Fair, the WM Community Partnership Scholarship Program (college scholarships for local students).

## CONTACT

### Technical Support

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## COMMUNITY RELATIONS

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## COMMUNITIES SERVED

Oregon  
Washington  
Idaho  
Alaska  
Canada



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