



# Oregon

Theodore R. Kulongoski, Governor

## Department of Transportation

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To: Lynn Averbeck  
Region 1 Innovative Partnerships

June 3, 2009

From: Charles Schwarz  
Region 1 Hazmat Coordinator

Subject: Preliminary Hazardous Materials Assessment  
West Linn Solar Project  
Hwy 64, MP 6.4 to 6.8  
Clackamas County

ODOT Region 1 Geo/Hydro/Hazmat has completed a preliminary hazardous materials assessment for the proposed West Linn Solar Project. The project involves placing as many as 30,000 solar panels on land owned by the State of Oregon adjacent to I-205. The purpose of the assessment was to identify potential hazardous materials concerns that could impact the project. Our findings are presented below.

### Site Description

The subject property is located on the north side of I-205 in West Linn (see Exhibit A). It is located in Sections 35 and 36 of Township 2 South, Range 1 East and covers an area of approximately 45 acres. The entire property is owned by the State of Oregon (see Exhibit B).

The subject property includes vacant land and an ODOT stockpile yard. It is bordered by residential properties that are cross gradient and upgradient to the west, north, and east and I-205 which is downgradient to the south.

The subject property is situated on a south facing hillside that rises from an elevation of approximately 220 feet at I-205 to over 400 feet along Barrington Drive and Riverknoll Way near the top of the hill (see Exhibit C). The Willamette River is located approximately 1200 feet to the southeast.

Construction of I-205 in 1969 triggered a large landslide on the subject property. The slide impacted several residential properties and the Willamette Reservoir, all of which were subsequently removed due to ground instability. After the State of Oregon purchased those properties, ODOT constructed a series of stepped-back benches and a rock fill buttress to stabilize the site. The buttress is over 2,000 feet in length, 100 feet in width near its center, and approximately 20 to 30 feet high along its southern face. Several groundwater springs are present at the toe, including one which has created a possible wetland.

The ODOT stockpile yard is approximately 1,500 feet long and located at the toe of the buttress. Access from I-205 is restricted by a locked gate.

### **Site Visit**

ODOT Region 1 Geo/Hydro/Hazmat conducted site visits on May 11 and June 2, 2009. Photographs taken during the visit are attached.

In general, the stockpile yard appeared to be clean and well maintained. The ground surface consists of a layer of gravel ballast and it is partially paved with asphalt. Several piles of aggregate material were present along with concrete zipper barrier, metal bridge components, and other items. No significant areas of surface staining were observed.

Some of the metal bridge components are painted. The paint may contain lead and other metals. Several cubic yards of road sweepings were also present near a small wooden garage. These may contain petroleum, metals, and other contaminants.

There are no worker-occupied buildings on site. Two green metal container boxes were present and locked. The garage was opened and examined. It contained only two or three small plastic fuel containers. There do not appear to be any underground utilities in the stockpile yard. Overhead electricity is present for lighting and to furnish power to the garage.

No surface stains or odors were observed in the vicinity of the wetland at the west end of the stockpile yard. Old automobile tires were scattered on top of the ground there and further west. Elsewhere on the subject property, small quantities of metal, concrete and other debris were observed including an old appliance with exposed insulation.

Two vertical, square metal pipes were observed at different locations on top of the buttress. Both pipes are capped and rise approximately 12 inches above ground. These appear to be inclinometers that were once used for measuring slope stability.

### **Environmental Database and File Review**

An environmental database report provided by Environmental FirstSearch and information available on the Oregon Department of Environmental Quality's Facility Profiler website indicate neither the subject property nor any adjacent property have been subject to hazardous materials investigations or cleanups.

Since 1986, the State Fire Marshal has maintained a database of hazardous substance incidents that have required action from regional emergency response teams. No such incidents have occurred on or adjacent to the subject property. ODOT Region 1 files indicate there have been no hazardous materials incidents on or adjacent to the subject property since 2000, when recordkeeping began.

Water well reports were reviewed using the Oregon Water Resources Department's on line database. There were no records of monitoring wells or water supply wells that have been completed on or adjacent to the subject property in Sections 35 and 36.

### **Historic Aerial Photographs**

Historic aerial photographs were obtained from the University of Oregon Map Library and examined to determine past land use on and adjacent to the subject property. ODOT reviewed photographs for the years 1936, 1944, 1948, 1952, 1956, 1959, 1964, 1970, 1973, 1980, 1984, 1990, 1994, and 1998.

The photographs indicate that from 1936 through 1964 the subject property was largely undeveloped. Two or three private residences are visible on the subject property and the old rectangular Willamette Reservoir is clearly visible in the northwest corner.

Construction of I-205 is visible in the 1970 photograph. Extensive slope repair work is in progress on the subject property above I-205. The private residences are no longer visible and the Willamette Reservoir has been drained. Adjacent properties to the west, north, and east of the subject property are largely undeveloped.

The 1973 aerial photograph shows the subject property following construction of the buttress. I-205 has been completed. The subject property appears unchanged in the 1980, 1990, and 1994 aerial photographs. During those years, residential development occurred on adjacent properties to the west, north, and east. The ODOT stockpile yard is visible in the 1998 photograph.

### **Supplemental Information**

According to an email received from Bill Miller, the ODOT District 2A Baldock Maintenance supervisor, the stockpile yard was created in 1995. It is used to store winter sanding material, rock, aggregate, and various highway materials such as pipe, portable bridges and zipper barrier. To the best of his knowledge, ODOT has never stored hazardous materials there nor have there been any hazardous materials spills. He indicated the vehicle tires resting in the field to the west of the stockpile yard were the only instance of possible illegal dumping he was aware of. He did not know how or when the tires were placed there.

### **Findings and Recommendations**

Based on the site visit, it is possible the gravel ballast in the stockpile yard has been impacted by low concentrations of petroleum, metals, and other contaminants due to some of the materials that have been stored there. Testing and analysis may be required by the Oregon Department of Environmental Quality if any of the gravel ballast must be removed and hauled off site.

The metal and concrete debris present on the subject property should be collected and recycled or disposed. A sample of the exposed insulation found next to the appliance has been collected for asbestos analysis. If asbestos is detected ODOT will hire an asbestos abatement company to handle and dispose of that material.

The abandoned automobile tires in the field west of the stockpile yard should be collected and disposed accordingly. They may have been illegally dumped. It is also possible they were once incorporated in the fill and have floated to the surface now as a result of a high groundwater table.

No potential environmental concerns are visible in the historic aerial photographs. The residences and reservoir that were present on the subject property were completely removed following the slide. The subject property has remained vacant since that time except for the ODOT stockpile yard.

Based on this preliminary assessment, there do not appear to be significant hazardous materials concerns with the subject property and the proposed West Linn Solar Project. Testing and disposal costs may be incurred if the project requires removal of the gravel ballast in the stockpile yard. ODOT may be able to avoid those costs if the ballast remains on site.

Copies of the Environmental FirstSearch report and the historic aerial photographs are available upon request. If you have any questions, please contact me at 503-731-8290.

**Limitations**

This assessment is for internal ODOT use only and may not be relied upon by any other entity without the written permission of an authorized ODOT representative. This assessment is intended to identify potential sources of contamination that could impact the subject property. No environmental assessment can wholly eliminate uncertainty regarding the potential for environmental conditions in connection with a site. Performance of a site assessment is intended to reduce but not eliminate uncertainty regarding the existence of environmental conditions in connection with a property. Finally, this report does not warranty against changes in land use or environmental conditions at the subject property or adjoining properties subsequent to publishing this report.

Attachments: Exhibit A- Aerial Photograph  
Exhibit B- Tax Lot Map  
Exhibit C- Topographic Map  
Site Photographs



Magnetic Declination



18° E

SCALE 1:4800

0 100 200 300 YARDS

0 1000 FEET

0 100 200 300 METERS

Name: CANBY NE, OR  
 Date: 5/30/2009  
 Scale: 1 inch equals 400 feet

Location: 621014 ft. N 7652155 ft. E NAD83  
 Caption: Exhibit A  
 West Linn Solar Project

2 IE 35D  
WEST LINN

SE 1/4 SEC. 35 T.2S.R.1E.W.M.  
CLACKAMAS COUNTY

This map was prepared for  
assessment purpose only.

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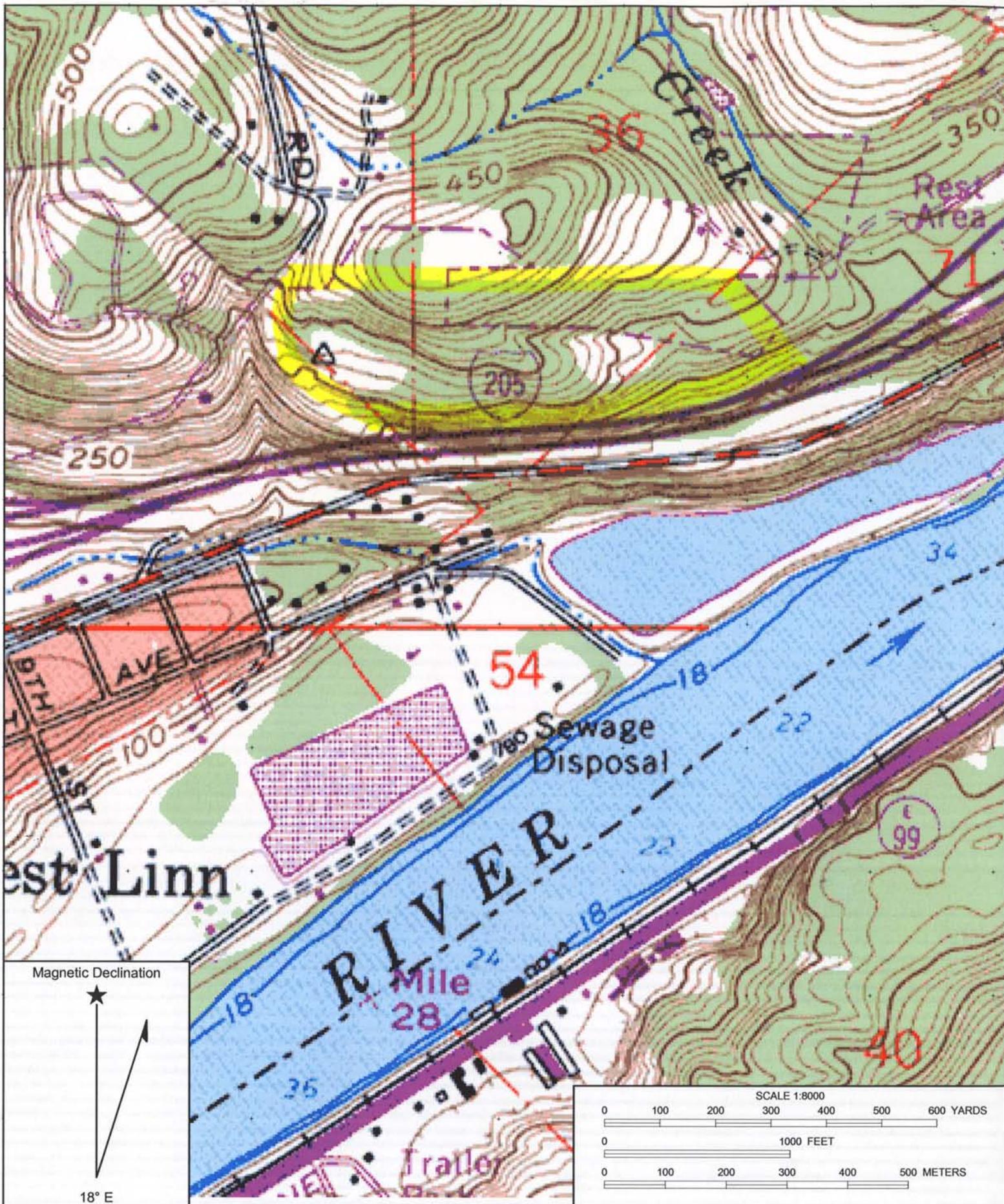
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Name: CANBY  
 Date: 6/1/2009  
 Scale: 1 inch equals 667 feet

Location: 619680 ft. N 7652256 ft. E NAD83  
 Caption: Exhibit C  
 Topographic Map



ODOT stockpile yard looking east toward brown wood shed in the distance.



Looking north toward rock fill buttress from the stockpile yard.



Portable bridge components stored at the stockpile yard.



Zipper barrier stored at the stockpile yard.



Aggregate piles at stockpile yard.



Shed used for front end loader.



Road sweepings debris stored at the stockpile yard.



Looking east across the top of the rock fill buttress.



Looking down from the top of the buttress near the west end. Tires are visible in the field below. View is to the southeast.



Tires scattered across the field at the toe of the buttress. ODOT stockpile yard visible in the distance. View is to the east.



Possible wetland area at the toe of the buttress.  
Stockpile yard is visible in the upper right corner.



Abandoned appliance found on the top of the buttress.  
Loose insulating material is visible on the ground.



One of two possible inclinometers found on the top of the buttness.



Looking down at possible wetland area from the top of the buttness.  
View is to the southwest.



Looking down at the stockpile yard from the top of the buttress.