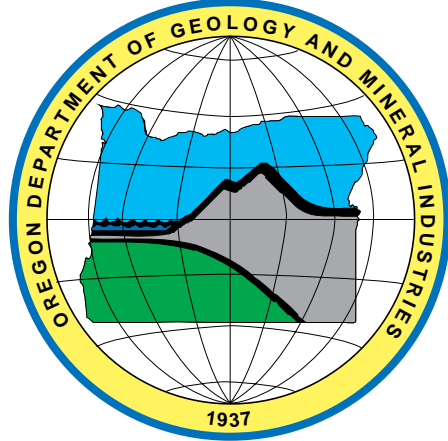


BARE EARTH HILLSHADE IMAGE

Lidar Imagery of the Northwest Quarter of the Lake Oswego 7.5' Quadrangle

HIGHEST HIT HILLSHADE IMAGE

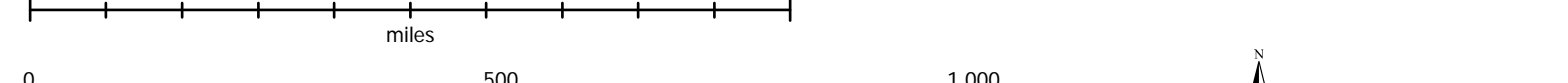
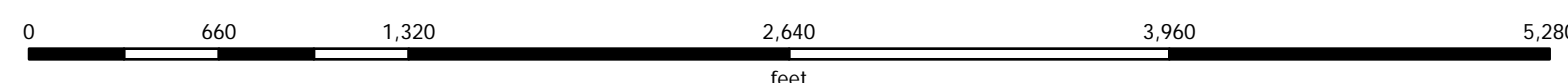
STATE OF OREGON  
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES  
VICKI S. MCCONNELL, STATE GEOLOGIST  
www.oregon.gov/dgi



Lidar Imagery Series

LIS-2010-45122D6-Lake Oswego  
Lidar Imagery of the Lake Oswego 7.5' Quadrangle,  
Clackamas, Multnomah, and Washington Counties, Oregon

2010



Cartography by Ted Roberts and Sarah Robinson, Oregon Department of Geology and Mineral Industries.  
Additional Cartography and data processing by John English, Kateena Hughes, Melissa Tilton, and Rustie  
Nelson, Oregon Department of Geology and Mineral Industries.  
Data Source: Lidar data from DDCAM and Puget Sound Lidar Consortium.  
Lidar flown 2004, 2005 and 2007.  
Hydrology features digitized from lidar data by DDCAM. Feature names from Google Maps,  
U.S. Bureau of Land Management, U.S. Geological Survey, and ESRI.  
Contours derived from bare earth elevation model smoothed to 40' x 40' averaging kernel.  
Map projection: Universal Transverse Mercator Zone 10 North, North American Datum 1983.

Scale: 1:8,000  
1 inch = 667 feet  
Contour interval: 20 feet  
UTM grid: 1 kilometer  
Water Features

Bare Earth Image



The bare earth image is a representation of the earth's  
surface stripped of man-made objects and vegetation.  
This is achieved by post-processing lidar point data.

Highest Hit Image



The highest hit image is a representation of the  
landscape at the time of the lidar flight. Unlike the  
bare earth image, this image shows features such as  
trees, buildings, and even cars.

Lidar Data Origins and Map Image Limitations

These maps were created using data derived from lidar (light  
detection and ranging) technology. A lidar measurement system  
collects huge quantities of three-dimensional point data where laser  
pulses have been reflected off opaque objects such as buildings,  
trees, bushes, and the ground surface.

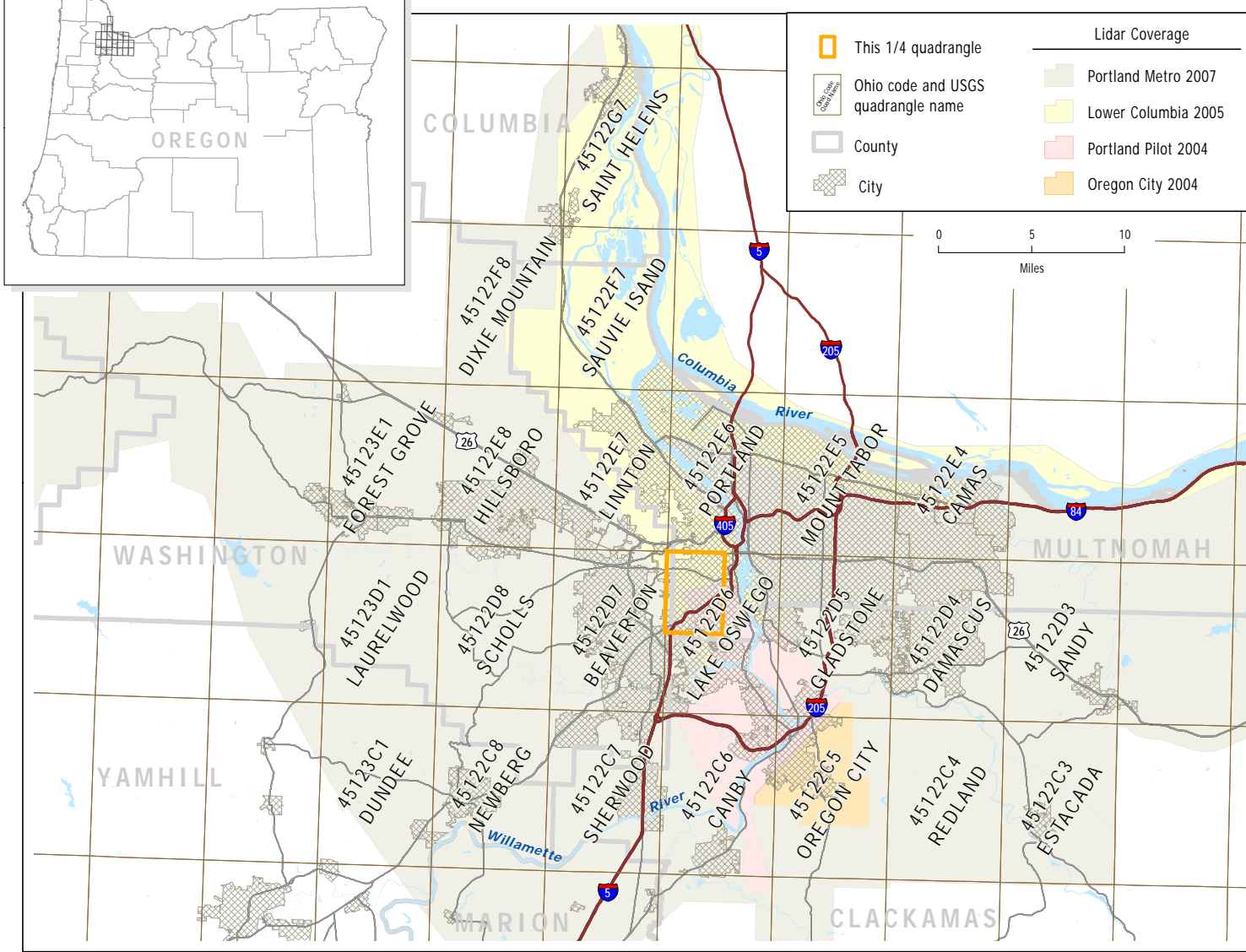
The lidar all returns point cloud data that are the original basis for  
these images were collected by Watershed Sciences Inc., TerraPoint,  
LLC, and Merriam and Company. The point cloud is a remotely sensed  
collection of three-dimensional point data that are systematically  
calibrated relative to GPS ground control points.

The services provided and map products produced by Watershed  
Sciences Inc. and TerraPoint, LLC were performed under the  
supervision of a State of Oregon registered and certified Registered  
Land Surveyor. The bare earth and highest hit digital elevation  
surface models (DEM) produced by the three companies and made

available by DDCAM as the Lidar Data Quadrangle (LDQ) series, are  
georeferenced raster grids (ESRI format) interpolated from the point  
cloud data.

The map images depicted here are examples by DDCAM using GIS  
techniques to extract and emphasize selected features. These map  
images, the interpretative content displayed, and this lidar image  
series are for general information purposes and are not intended to  
indicate the authoritative location or definition of real property  
boundaries, the precise shape or contour of the earth, or the precise  
location of fixed works of humans. No warranty, expressed or  
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Quadrangle Location Map



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