

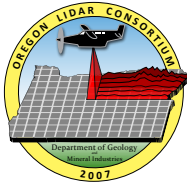
# DOGAMI Fact Sheet: Lidar Data Acquisition, Uses, & Partners



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## The Oregon Lidar Consortium

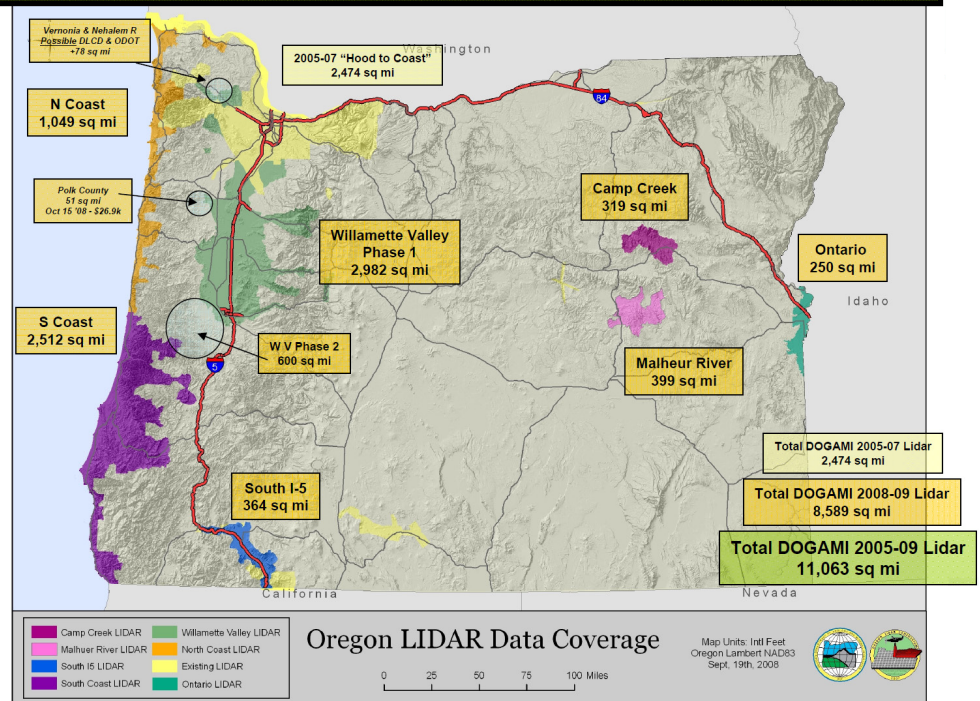


This program represents a major focus of DOGAMI staff. The Business Plan for the consortium is based on pooling funds and needs for data to leverage the best price for data collection and guarantee the highest standards and quality assurance. Need for lidar data and visualization materials is not limited to DOGAMI; lidar data contain vital information for all natural resource and land management organizations.

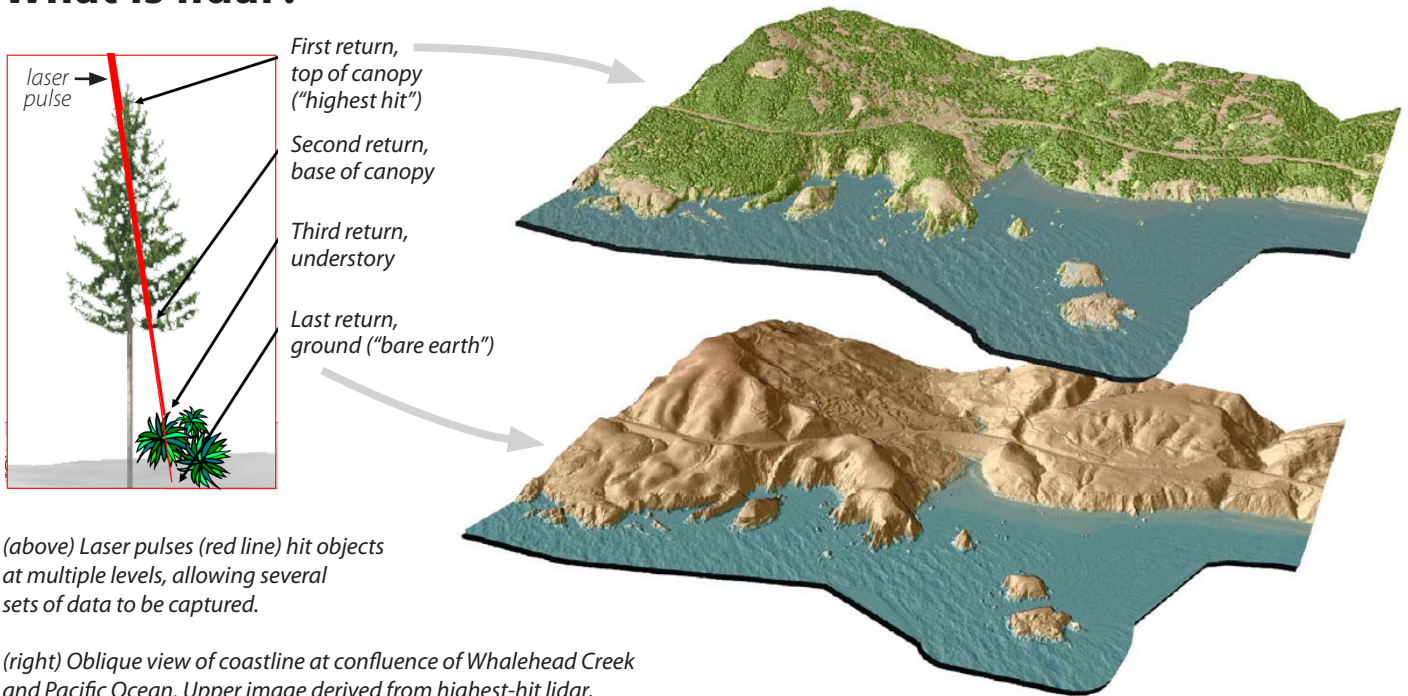
### OLC on the Web:

<http://www.oregongeology.org/sub/projects/olc/default.htm>

## DOGAMI LIDAR PROJECTS '08-'09

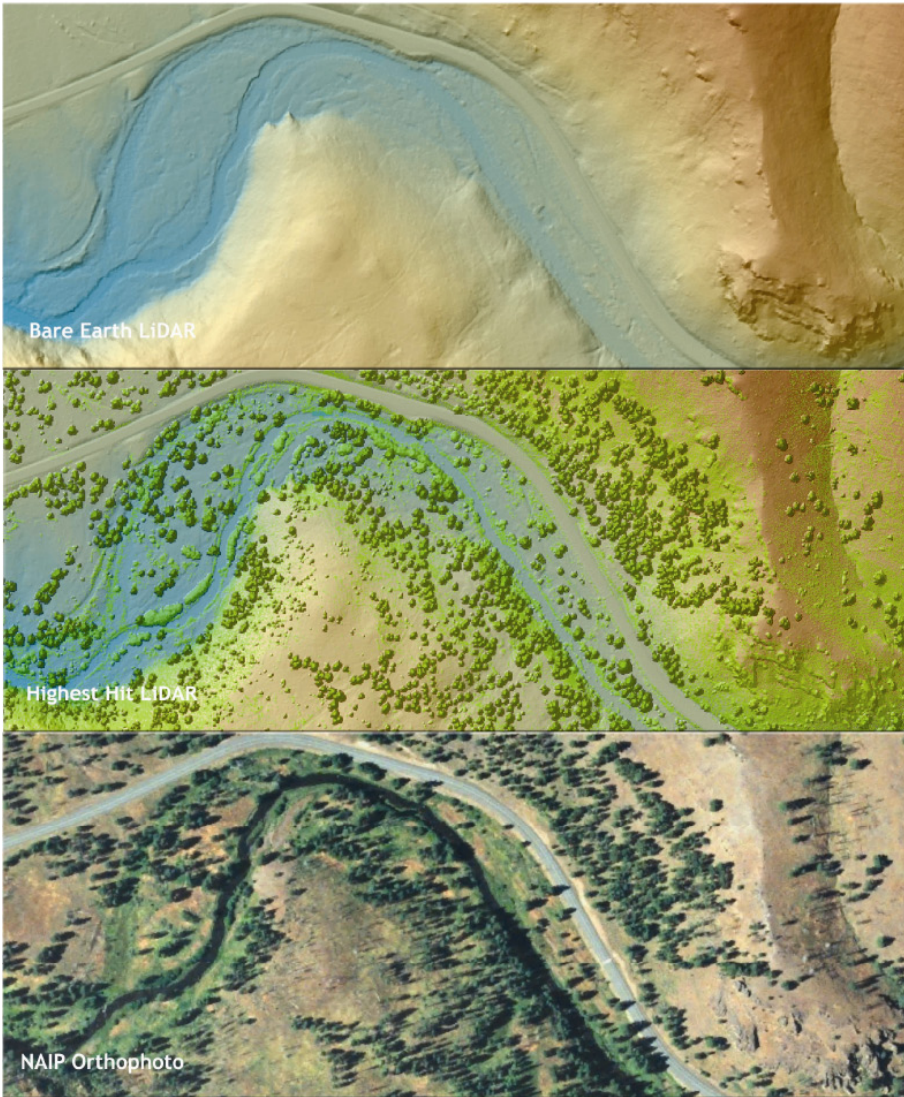


## What is lidar?



(above) Laser pulses (red line) hit objects at multiple levels, allowing several sets of data to be captured.

(right) Oblique view of coastline at confluence of Whalehead Creek and Pacific Ocean. Upper image derived from highest-hit lidar, lower image derived from bare-earth lidar. Image from November 21, 2008, Watershed Sciences Southwestern Oregon report to DOGAMI.



Plan view over Middle Fork John Day River. Top image represents bare-earth lidar, middle image is highest-hit lidar, lower image is NAIP orthophoto. Image from November 26, 2008, Watershed Sciences Camp Creek, Oregon, report to DOGAMI.

## Uses of Lidar

Lidar provides very high resolution digital data that are vital components of a myriad of natural resource and land-use assessment and planning activities, including:

- Forest inventory, canopy analysis, and operations planning and management (ODF, USFS, BLM)
- Riparian habitat recovery and watershed restoration (OWEB)
- Civil infrastructure risk assessment, including dams, levees, and power lines (USCOE)
- Forest fire fuel load assessment and mitigation planning (ODF, counties)
- Locating and measuring location and type of impervious surfaces (cities)
- Transportation corridor planning, for highways, rail lines and connective services (ODOT)
- Natural hazard assessment, including landslides, earthquakes, flooding, channel migration, coastal erosion, volcanic debris deposition, and tsunami inundation (USGS, DOGAMI)

DOGAMI uses lidar to build new-generation topographic maps as a base for geological maps, and especially for natural hazard assessment, as listed above.

DOGAMI has had success during 2007-2009 in building federal, tribal, state, and community lidar funding partnerships. In total, these partnerships will amount to \$3.2 million in Other Funds financing to acquire, process, and deliver lidar data for 8,600 square miles of the South Coast, Willamette Valley, south I-5, and eastern Oregon areas.

## DOGAMI Lidar Funding Partners 2008-2009

[Over and Above \$1.5M in Lottery Funds provided by OWEB]

### ■ Federal Agency Partners

- Bureau of Land Management [\$984,000]
- USDA Forest Service [\$423,071]
- U.S. Geological Survey [\$347,400]
- Federal Emergency Management Agency [\$250,000]
- Environmental Protection Agency [\$160,000]
- Army Corps of Engineers [\$92,836]
- USDA National Resources Conservation Service [\$83,000]
- Bureau of Reclamation [\$95,000]
- U.S. Fish and Wildlife [\$2,500]

### ■ State Agency Partners

- Department of Transportation [\$230,500]
- Department of Forestry [\$142,232]
- Parks and Recreation [\$49,000]
- Department of Land Conservation and Development [\$14,000]

### ■ Oregon Counties

- Lincoln [\$86,400]
- Clackamas [\$55,000]
- Lane County [\$28,000]

- Polk County [\$26,900]
- Marion [\$12,000]
- Linn [\$10,000]
- Benton [\$5,000]
- Malheur County [\$2,500]

### ■ City and Local Governances Partners

- Eugene Water and Electric [\$57,645]
- Eugene [\$50,000]
- Clean Water Services [\$50,000]
- Salem [\$15,000]
- Lincoln City [\$13,549]
- Springfield [\$10,000]
- LCOG [\$7,000]
- Malheur Soil and Water Conservation District [\$5,000]
- Medford [\$3,612]
- Philomath [\$3,294]
- Yachats [\$1,100]
- Turner [\$878]

### ■ Tribal Partners

- Coquille [\$5,000]
- Siletz [\$5,000]