Pacific Northwest Region
Malheur National Forest
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News Release

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Funding secured to acquire LiDAR coverage of the Canyon Creek Watershed

JOHN DAY, PRAIRIE CITY, and HINES, Ore. – The Malheur National Forest recently received funding from Oregon's Federal Forest Health Program to acquire LiDAR (Light Detection and Ranging) coverage for the Canyon Creek watershed.

LiDAR is an active imaging system similar to sonar or radar, but it uses pulses of laser light instead of sound or radio waves to scan the landscape. LiDAR has been used since the 1950s to help make the topographical maps we enjoy today, but has many applications for forestry as well, such as measuring forest vegetation densities, heights of canopy cover, and even shrub levels. Precise terrain mapping can show the location of former roads, railroads, and mine tailings, and reveal previous drainages or stream meanders otherwise difficult to detect on the ground. Before and after scans of an area can alert geologists to unstable terrain, and may warn of areas vulnerable to landslides or flood events.

Flood potential is a concern for areas within or downstream of the Canyon Creek Complex fire, because decreased vegetation cover can reduce the landscape's natural ability to slow down and store rainwater. The recently-acquired LiDAR imagery will help Grant County, the Forest Service and other partners improve predictions about vulnerable areas within the Canyon Creek watershed.

Besides implications for flood and landslide prediction, LiDAR coverage will help the Forest Service specialists and collaborative partners be more efficient in their work. Some advantages of using LiDAR include:

- Terrain imaging can guide hydrologic and fish survey crews to potential trouble spots, such as where roads cross drainages.
- Forest Service archeologists' search for artifacts or cultural heritage sites is already better focused through the use of LiDAR imaging.
- Silviculture planners can use LiDAR to better select forest inventory sample points.

Other potential applications are numerous, which is why the Forest Service hopes to continue working with other federal, state, and local partners to expedite coverage of Grant and Harney counties and the entire Malheur National Forest.

for the greatest good

For more information on LiDAR coverage at a national level (http://nationalmap.gov/3DEP/index.html), at the Oregon state level (http://www.oregongeology.org/sub/projects/olc/default.htm), or at the forests of Pacific Northwest level, see http://www.fs.fed.us/pnw/pubs/pnw_gtr768.pdf.

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