Central Oregon, High Cascades included in new Oregon Geologic Data Compilation Release

by Bend Weekly News Sources

The Oregon Department of Geology & Mineral Industries (DOGAMI) has finished the third phase of a multi-year project to develop a digital statewide geologic map and to compile the geologic data in a database form for the entire state. This report brings together the best available geologic mapping and data from all relevant published and unpublished sources: state and federal agencies, university thesis work, and other documents. This updated map and data, Oregon Geologic Data Compilation (OGDC-3), now includes the Southeast and Northeast Oregon Geologic Compilation data sets plus the newly added Central Oregon data set, including the High Cascades â€“ Mt. Bachelor, the Three Sisters, the Cascade Lakes region â€“ and Newberry National Volcanic Monument. OGDC-3 also includes Bend, Redmond, Prineville and the John Day Fossil Beds National Monument.

The purpose of the Oregon Geologic Data Compilation project is to assemble the best available geologic map information for the entire state by integrating the work of many individual geologic mappers into a vector digital data set. The data are stored in a geographic information system (GIS) format with links to a relational database. The compilation is thus a "living map" that can change as new information becomes available. Knowledge of and access to GIS and database software applications are essential to the use of the CD version of the compilation.

"By using digital mapping technology we are able to present much more detail than conventional paper maps. We will be able to better assist in the understanding of a variety of environmental, resource-availability, geologic-hazard, and land-use planning questions," said Vicki S. McConnell, State Geologist and Director of DOGAMI.

Creating geologic maps is commonly confused with surveying, and making road maps and topographic maps, which show hills, valleys, roads, and other natural and man-made features on the Earthâ€™s surface. Geologic maps, however, use a combination of colors, lines, and symbols to depict the composition, distribution and relationships of rocks and sediments at and near the Earthâ€™s surface.

Geologic maps also reveal the structure of the rocks below the Earthâ€™s surface by depicting faults and the orientation of the rocks. Understanding this third dimension is particularly important for the discovery and assessment of mineral and energy resources; the locations of geologic hazards such as landslides and faults; and the locations and types of resources such as sand and gravel, ore deposits, and ground water.

The Oregon Geologic Data Compilation team includes Margaret D. Jenks, Paul E. Staub, Mark L. Ferns, Ian P. Madin, Lina Ma, Clark A. Niewendorp, and Deb Schueller, all with DOGAMI and Ronald P. Geitgey, retired DOGAMI geologist, and Ed Taylor, retired UO geology professor. The web map application is headed by David Percy, Research Faculty, Geospatial Data Manager, Department of Geology, Portland State University.

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