

Oregon Geoscience Workgroup

Minutes of March 5, 2003 meeting

Attendees:

Fred Lissner, OWRD

Doug Terra, OWEB

Teri Gaffney, Tillamook Co.

Jon Hofmeister, DOGAMI

Courtney Cloyd, USFS

Cy Smith, DAS/OGDC

Ron Geitgey, DOGAMI

Paul Staub, DOGAMI

Andrew Rorick, USFS

Mark Darienzo, OEM

Loudon Stanford, IGS

Guest speaker Loudon Stanford of the Idaho Geological Survey (IGS) gave a presentation on geologic map data models, following up with a look at sample IGS data. Loudon has served on the North American Digital Geologic Map Data Model (NADM) Committee and has overseen development of the Idaho variant of the NADM. Basic geologic map elements were presented as an introduction, then a history of geologic data model development efforts was provided. Data modeling of geologic map information is still in its infancy. In comparing and contrasting the IGS model with the NADM, Loudon emphasized that the science drives the model. The NADM and the IGS variant are entity-relational models. However, the national model development effort is evolving toward an object-oriented model. This is known as Norton, and is estimated to be about two years from completion. A link for more information on this is <http://pubs.usgs.gov/of/2002/of02-202/>

The NADM is a guide to what information should be collected about each map. It does not specify how to collect or store this information. Further, it is acknowledged that different states have different emphases in their mapping and different ways of collecting that data, and when the various geological surveys evaluate and implement the national data model, they will modify it as needed to suit their system and user requirements. Tools for interchange/translation will be necessary to merge data from different data collectors.

Loudon went on to describe the IGS model in detail. There are three components: the spatial database, the legend database, and metadata (see the following link for more information <http://www.idahogeology.org/Lab/datamodel.htm>.) The legend component includes extensive tables relating to lithologic description, which addresses the key need expressed by the Oregon Geoscience workgroup in earlier meetings. This will be an important component in the development of an Oregon model. Loudon finished up with helpful comments regarding choosing and implementing a model. He again emphasized that one model/type does not fit all needs and developers must customize and ensure the resulting model fits the particular need.

After Loudon's presentation, Oregon Geoscience members commented favorably regarding the IGS data model and felt it was a good starting point in developing an Oregon version. Accordingly, DOGAMI staff will review the model to determine what elements of it might meet the needs of the statewide compilation project set to begin in June. A pilot project in NE Oregon will gather the best available geologic data in a compilation effort while establishing the data structure and methodologies to proceed with a statewide geology Framework theme at 1:100,000 scale, over six years. Details of the NE Oregon pilot project can be viewed at http://www.oregongeology.com/transfer/NE_Pilot.pdf

At the next Oregon Geoscience workgroup meeting, a first draft of an Oregon geologic data model will be presented for discussion.