

Geoscience FIT Meeting Agenda

Date: Tuesday, April 4, 2017

Time: 10am-12pm

DOGAMI Conference Room, Portland State Office Building, 800 NE Oregon St., Suite 965, Portland, OR 97232

Teleconference Line: if you would like to call in, please contact Lina Ma at lina.ma@oregon.gov or 971-673-1545

10-10:15am WELCOME/INTRODUCTIONS (All)

10:15-10:45am BACKGROUND

1. Oregon GIS Framework Program (Theresa Burcsu)
2. Oregon Geology Data Standard/Oregon Geologic Data Compilation (Lina Ma)

10:45-11:45am BUSINESS ITEMS

1. Geology Data Standard update
 - a. OGDC v6
 - b. USGS NCGMP09/GEMs schema
2. Overview of the Soils Data Standard (Whityn Owen)
3. GIS Data Stewardship/Data Preservation
4. Identify new Geoscience data for development
 - a. Priority data?
5. Upcoming Call for Proposals- FIT funding
 - a. Identifying Framework Foundational Data Elements: where do the Geoscience data elements lie? (Theresa)
 - b. Funding requirements/eligibility

11:45-12pm OTHER ITEMS OF BUSINESS

1. Members or alternates for workgroup
2. Geoscience FIT listserve
3. Comments/Questions
4. Next meeting/time- quarterly? (July 11th)

12:00pm ADJOURN

NOTES

Attendees: Lina Ma, DOGAMI; Theresa Burcsu, OSCIO; Whityn Owen, NRCS; Lowell Anthony, DOGAMI; Darrick Boschmann, OWRD; Nancy Calhoun, DOGAMI; Jacob Edwards, DOGAMI; Ian Madin, DOGAMI; Curran Mohney, ODOT; Dorothy Mortenson, OWRD; Don Pettit, DEQ; Deb Schueller, DOGAMI

On phone: Jason McClaughry, DOGAMI; Diana Walker, ODA

Framework Program

Theresa gave an overview of the Framework program for the new members in the group. For more information, visit the Oregon Framework Program website- <http://www.oregon.gov/geo/Pages/fit.aspx>

Discussion: OGDC - Oregon Geologic (Map) Data Compilation and the Oregon Geology Standard - Ian Madin and Lina Ma

1. Ian reminded the group that in the past there was a tremendous amount of detail in the attributes referencing the sources and data collection of information. Internal decision was made to update only the line work without the data from the original Access database. OGDC v6 includes these tables.
2. DOGAMI has put a number of key performance measures into place, as have all state agencies. One of these is to keep databases maintained and up-to-date.
3. USGS is completing a new Portland area map
 - a. A decision is needed about which Portland area map should be used in OGDC (per Ian)
4. Geology Data Standard and OGDC were created in 2004.
5. OGDC is a statewide compilation of geologic maps. Geologists made decisions for best available maps for the state. Paper maps were scanned, georeferenced, digitized as-is and unit description information was entered into the Access database. The digitizing process created a patchwork of maps at various map scales in a single polygon layer for geologic map units, faults, folds, and reference map extents. There were two components to the data: a spatial database and tabular database.
6. Some areas of the State have multiple maps overlying one another and in other areas, best scale is 1:500,000. These variances are seen in the Edge Boundary "faults".
7. There is some desire for a seamless 1:100,000 geologic map, but funding has not been made available. Some geologic contacts/map units need to be re-delineated to make it seamless.
8. Members expressed interest in a single, constant resolution surficial geology map, separate from bedrock
 - a. Some think it would be good to maintain a separate surficial map and standard for uses such as in landslide hazard studies
 - b. Others prefer a single layer, single database to simplify the usability for users, especially non-geologists, such as engineers. The data would be used more correctly and efficiently this way.
 - c. It was noted that surficial units do not exist statewide and keeping the data in separate surficial and bedrock layers to create a hybrid map are not user friendly for OGDC.
 - d. USGS data schema/standard doesn't separate surficial and bedrock units into two separate layers. This could be accommodated by adding an attribute field in the schema.

Discussion: USGS database standard vs. Oregon standard

1. Latest OGIC approved standard is from 2004. OGDC has taken on many changes since the approval and is not 100% reflective of the current approved data standard.

2. OGDCv6 is the latest release as an Esri-formatted geodatabase. It added recent DOGAMI mapping, but other published/best available mapping was not included, as it could be.
3. We need to be cognizant of the limitations of the Esri model for databases
 - a. ****note:** Lina learned from Dave Soller at the USGS that the Esri geologic mapping template was created to showcase cartographic representation, not to be used as mapping template. This has caused confusion for many who create geologic maps.
4. USGS and Oregon schema/database structure are quite different
 - a. There is an opportunity to update the State's standard with the USGS' geologic map database schema, dubbed NCGMP09.
 - b. There may be an opportunity to align with neighboring state standards. Some states (AK, AZ, WA) are currently using the USGS schema/standard, others are not.
 - c. Current DOGAMI geologic mapping is using the USGS' schema for the first time.
5. USGS is planning to take their schema to FGDC for standardization after version revisions have been made. The USGS standard is a schema for geologic mapping using ArcGIS.
 - a. It was noted that if a federal standard is in place, the State Standard has generally followed it
 - b. OGDC data must be modified to conform to the USGS data schema
6. Geoscience Workgroup tasks to consider:
 - a. Update the OGDC/Geology Data Standard.
 - b. Action Item: Provide feedback and recommendations to improve the Oregon geology data standard to Lina by June 1, 2017.
 - c. Action Item: Provide any considerations for a more user friendly product to Lina by June 1, 2017.
7. Creating a single resolution (1:100,000) geologic map that is statewide in extent. Requests from several people for a seamless map layer, however funding has not surfaced for this project.

Soils Data Standard and Work Group - Whityn Owen

1. Renewing the work group. Volunteered to chair the work group.
2. Action item: Please express your interest in the group by sending an email to Whityn Owen. Diana Walker and Lina Ma volunteered to join the work group.
3. Action item: Theresa Burcsu to work with the Soils Work Group to finalize minor revisions of the standard, and will substitute Whityn Owen's contact info for Ian Reid's on the GEO website
4. Action item: Whityn Owen to work with Theresa Burcsu on an updated map of soil survey digitizing status for the GEO website. Ideas: providing an AGOL map and a PDF version. (Interest was expressed in having both views too).
5. Action item: Whityn Owne to reconvene the Soils Workgroup
6. Soil Properties and Interpretations
 - a. gSSURGO = gridded SSURGO
 - i. New raster version (10-m) fGDB of SSURGO with some tools for querying and visualization (such as pyramid layers)

- b. SSURGO data in a fGDB. SSURGO has been an SQL database for many years because of the complex relationships among the tables.
 - c. Soil Data Viewer - existing view that allows for query of the spatial data using Esri custom tools
7. The Oregon Soils Standard
 - a. Based on federal standards - national cooperative survey and FGDC.
 - b. How do you get "best available" data integrated into existing data? It would be highly challenging to use locally available data as these are often proprietary.
 - c. 5 layer files that can be modified for future releases or updates

Decision opportunities:

Action Item: Remove specific software references in the Standard's language, e.g., shapefile, Access db, and delivery format for the data

Additional products, e.g., permeability data element, hydric soils data element, depth to saturation may be considered

Action Item: Consider any additional items to add to the Soils Standard

Unfinished items:

1. Identify new Geoscience data for development
 - a. Priority data?
Action Item: Provide feedback or comments to Lina with any suggestions that were not discussed during the meeting by June 1, 2017.
2. Upcoming Call for Proposals- FIT funding

Other items for the next meeting:

- Framework Standards Update Process
- Framework data elements -- Are these the right ones? Are all geoscience data elements represented?
- Any suggestions from the Geoscience FIT Workgroup?

Acronyms:

- FGDC: Federal Geographic Data Committee
- USGS: U.S. Geological Survey
- NCGMP: National Cooperative Geologic Mapping Program
- NCGMP09: The USGS' geologic map database schema, initially released in 2009 (<https://ngmdb.usgs.gov/Info/standards/NCGMP09/>)
- GeMS- An unpublished, revised version of NCGMP09
- NRCS- Natural Resources Conservation Service
- SSURGO: Soil Survey Geographic Database of the NRCS