

DIGITAL MAPPING TECHNIQUES 2013

The following was presented at DMT'13
(June 2-5, 2013 - Colorado Geological Survey and Colorado School of Mines
Golden, CO)

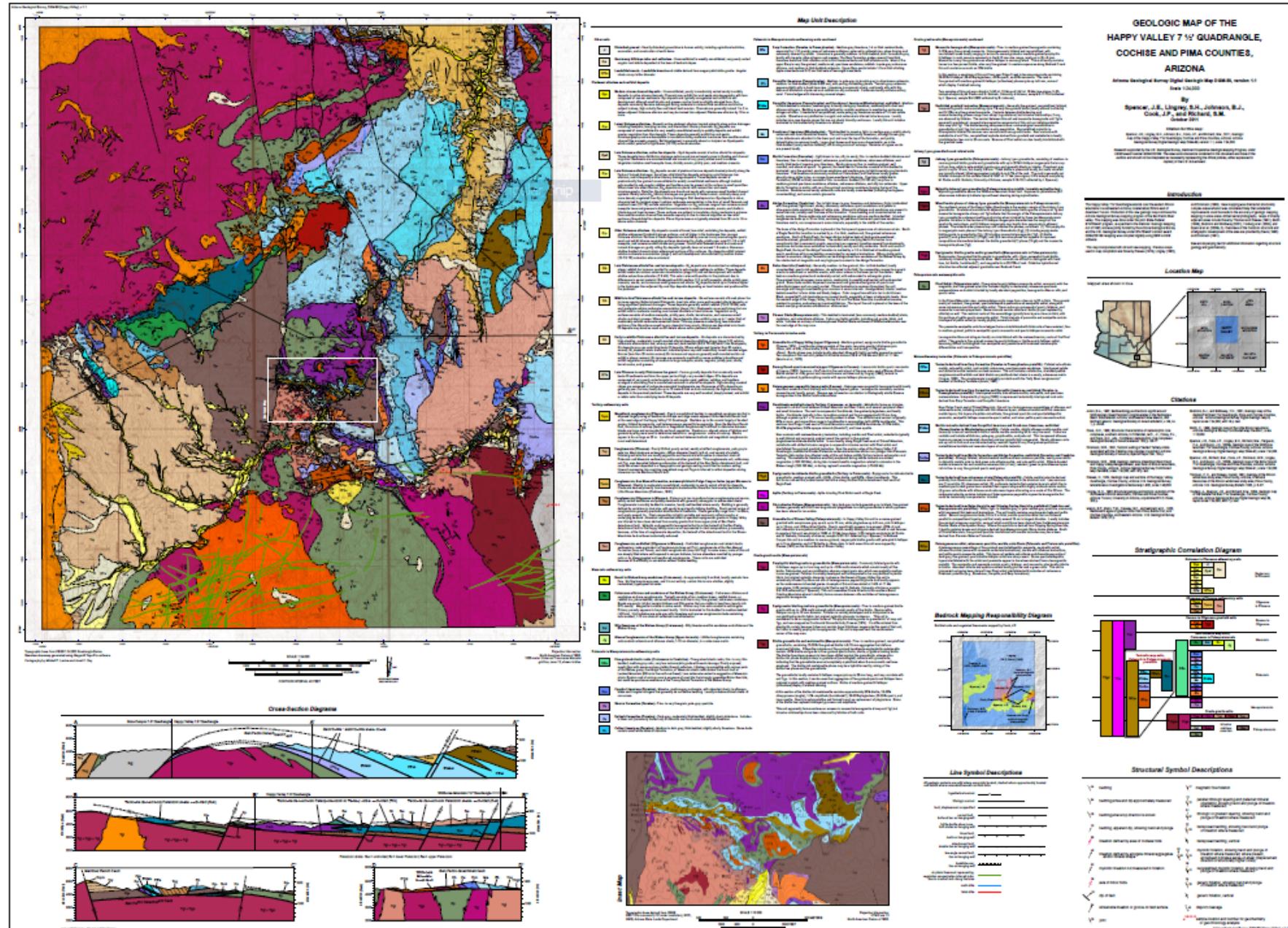
The contents of this document are provisional

See Presentations and Proceedings
from the DMT Meetings (1997-2013)

<http://ngmdb.usgs.gov/info/dmt/>

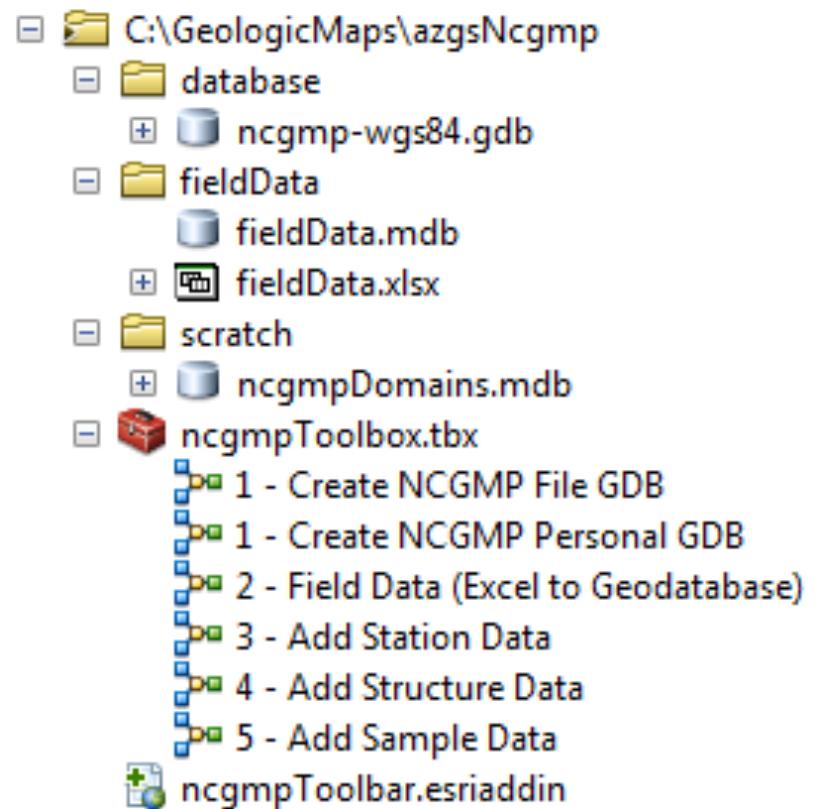
Streamlining geologic map production and archiving with NCGMP Tools

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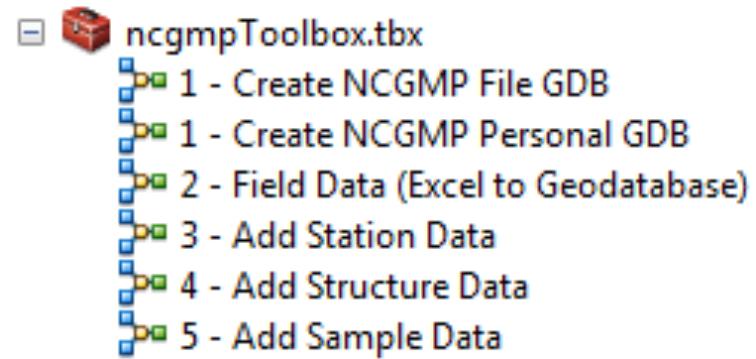
What we are developing. . .

- Tools that streamline the geologic mapping production and archival process:
 - Toolbox
 - AddIn
 - Documentation



In the toolbox. . .

- You'll find tools to:
 - Create NCMGP formatted database (azgs style)
 - Import field data into NCGMP point feature classes (stations, orientation data points, samples)

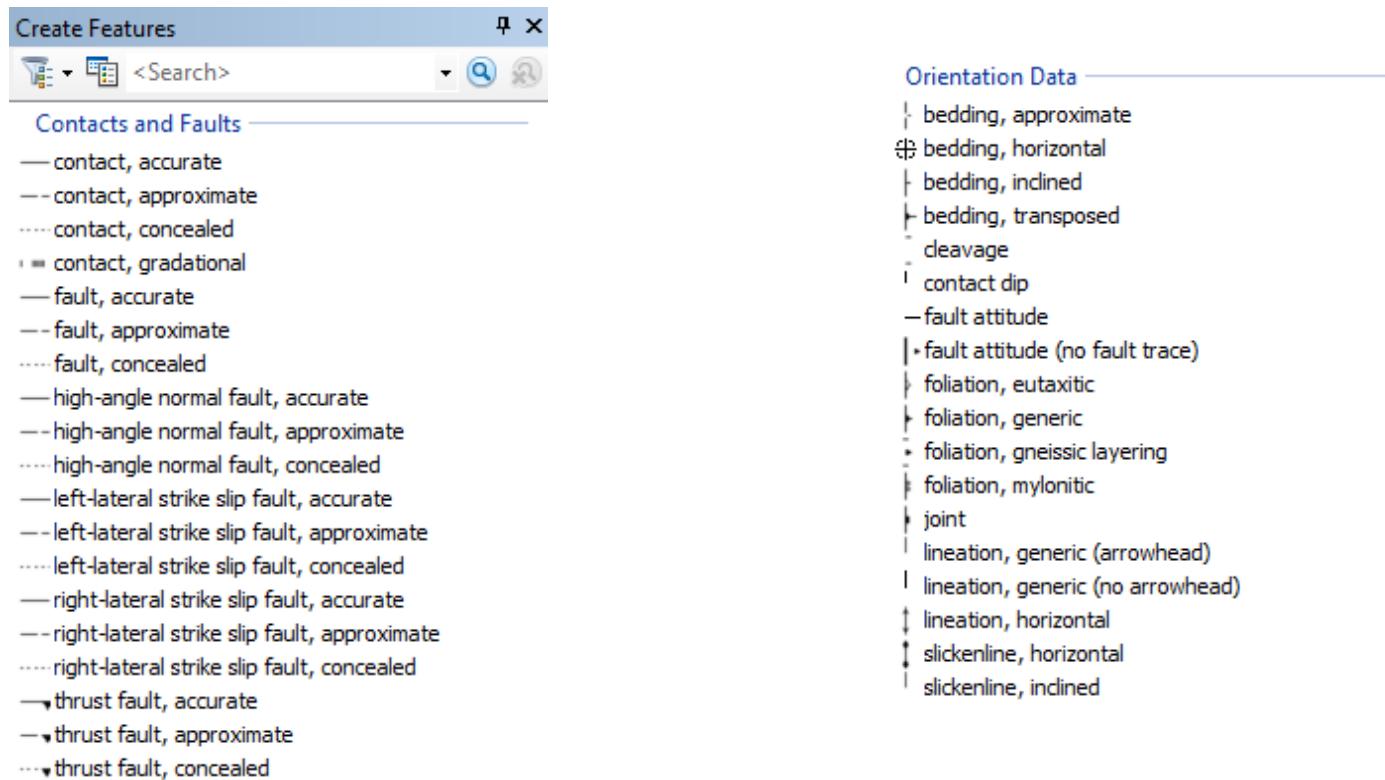


Esri AddIn

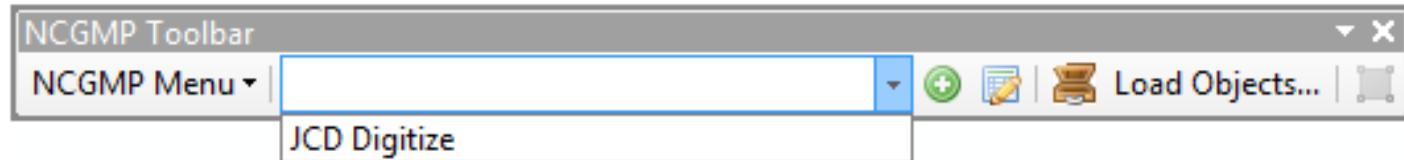
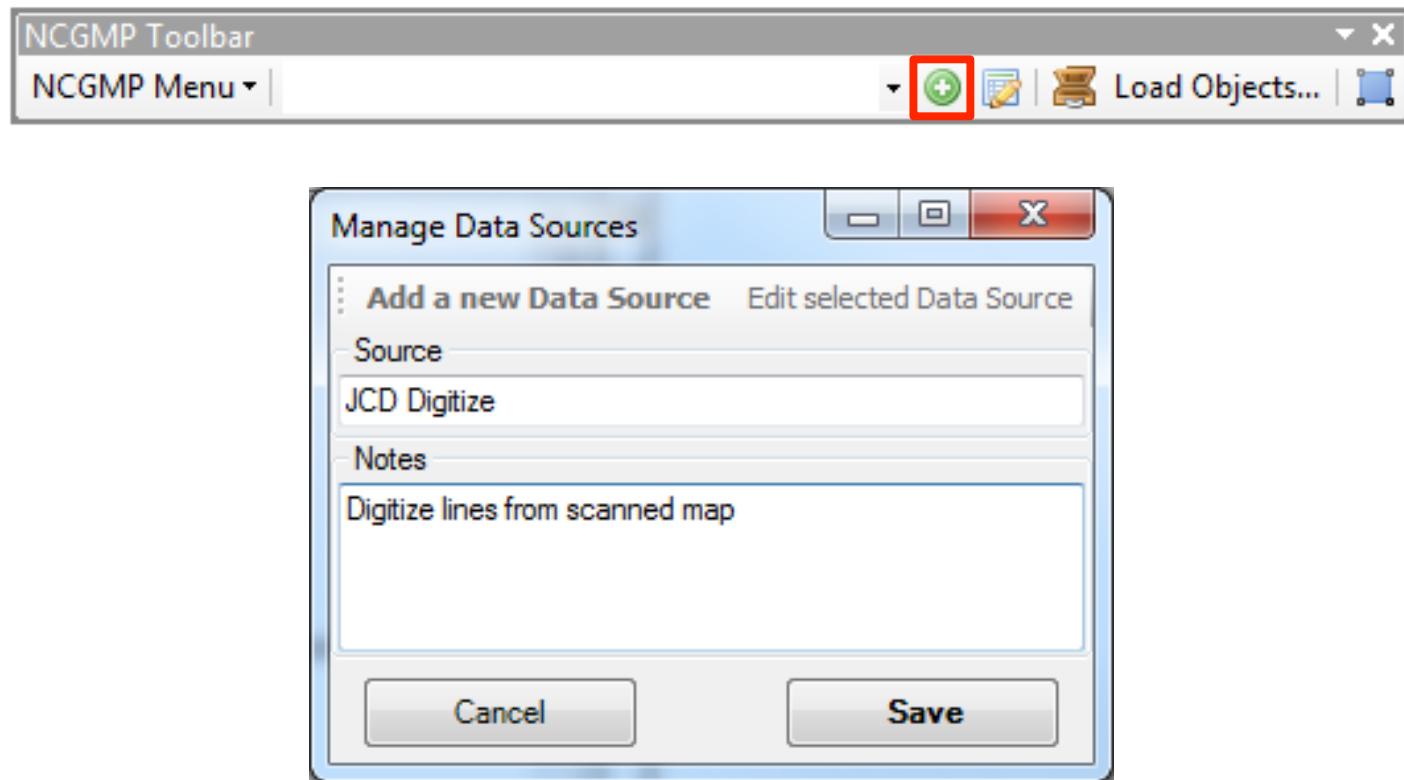


- Key Features:
 - ‘Default’ contact, fault and orientation data templates
 - Manage data sources/feature level metadata
 - Digitize structure data from scanned maps tool
 - Manage map unit legend data, hierarchy and symbology
 - Produce map unit legend in ArcMap layout view

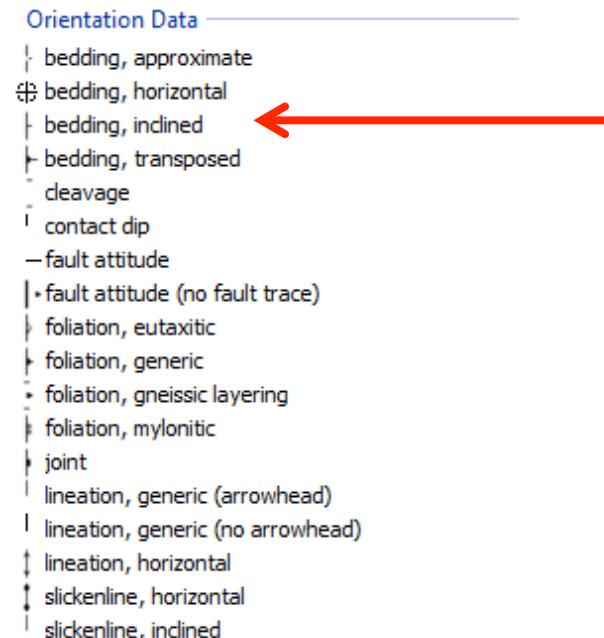
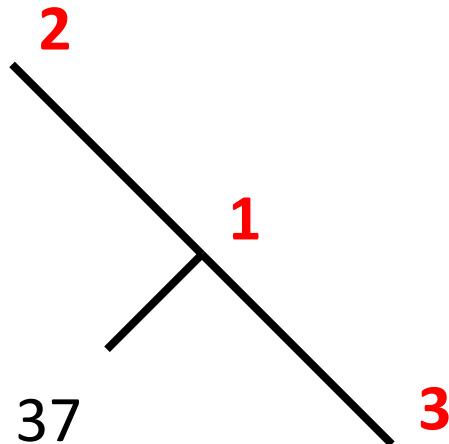
Default Templates



Feature Level Metadata



Digitize structure data



Manage map unit legend

The screenshot displays the NCGMP Toolbar and two instances of the Map Unit Legend Editor.

NCGMP Toolbar: Shows the "NCGMP Menu" dropdown and three buttons: "Open NCGMP Database", "Database Maintenance", and "Manage Map Unit Legend". The "Manage Map Unit Legend" button is highlighted with a red box.

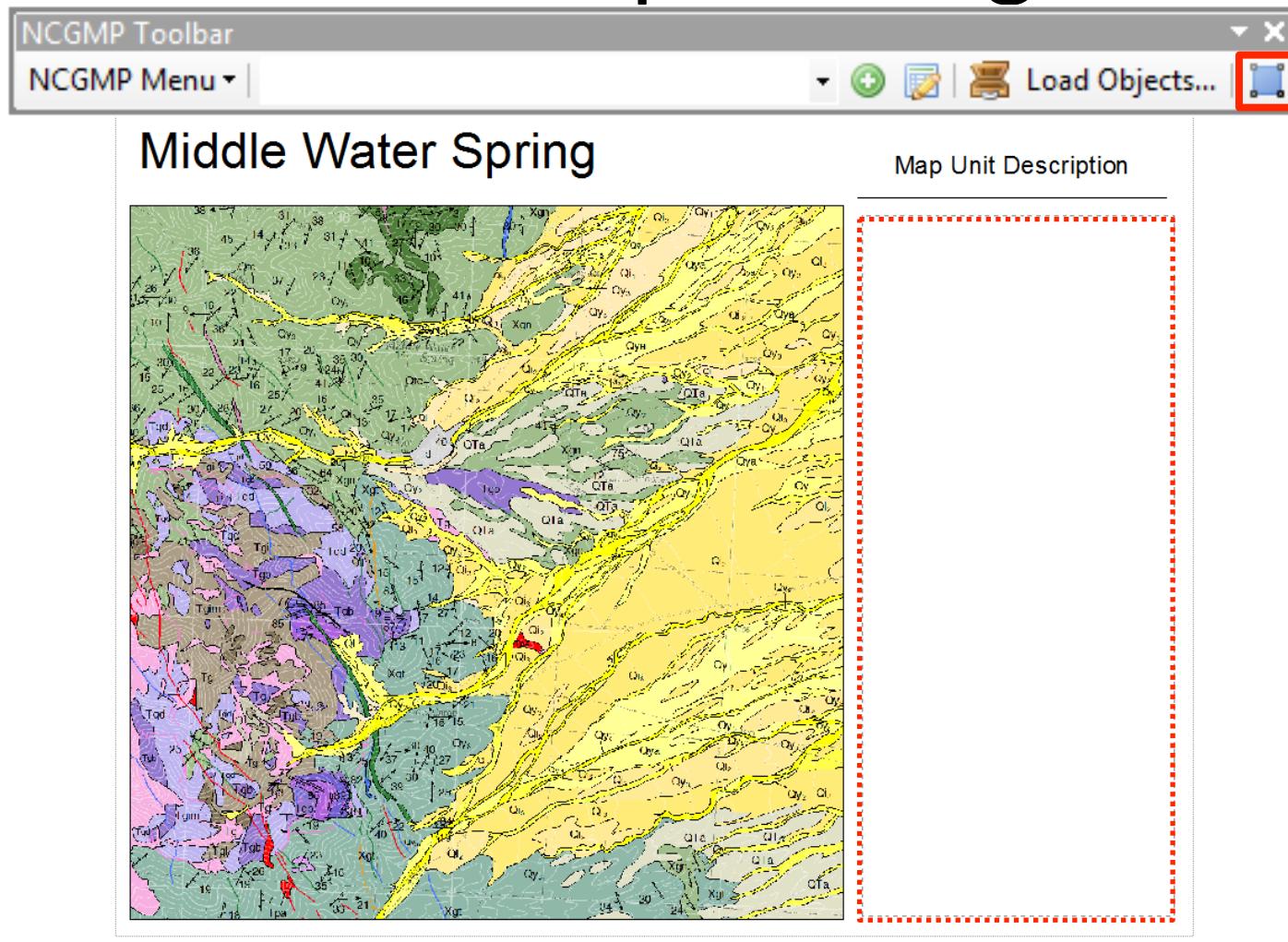
Map Unit Legend Editor (Left): A tree view of geological units under "Happy Valley". The "Other units" section is expanded, showing entries like "d - Disturbed ground", "Ks - Calcareous siltstone and sandstone of the Bisbee", and "Ict - Tectonite derived from calcareous strata (Paleozoic)".

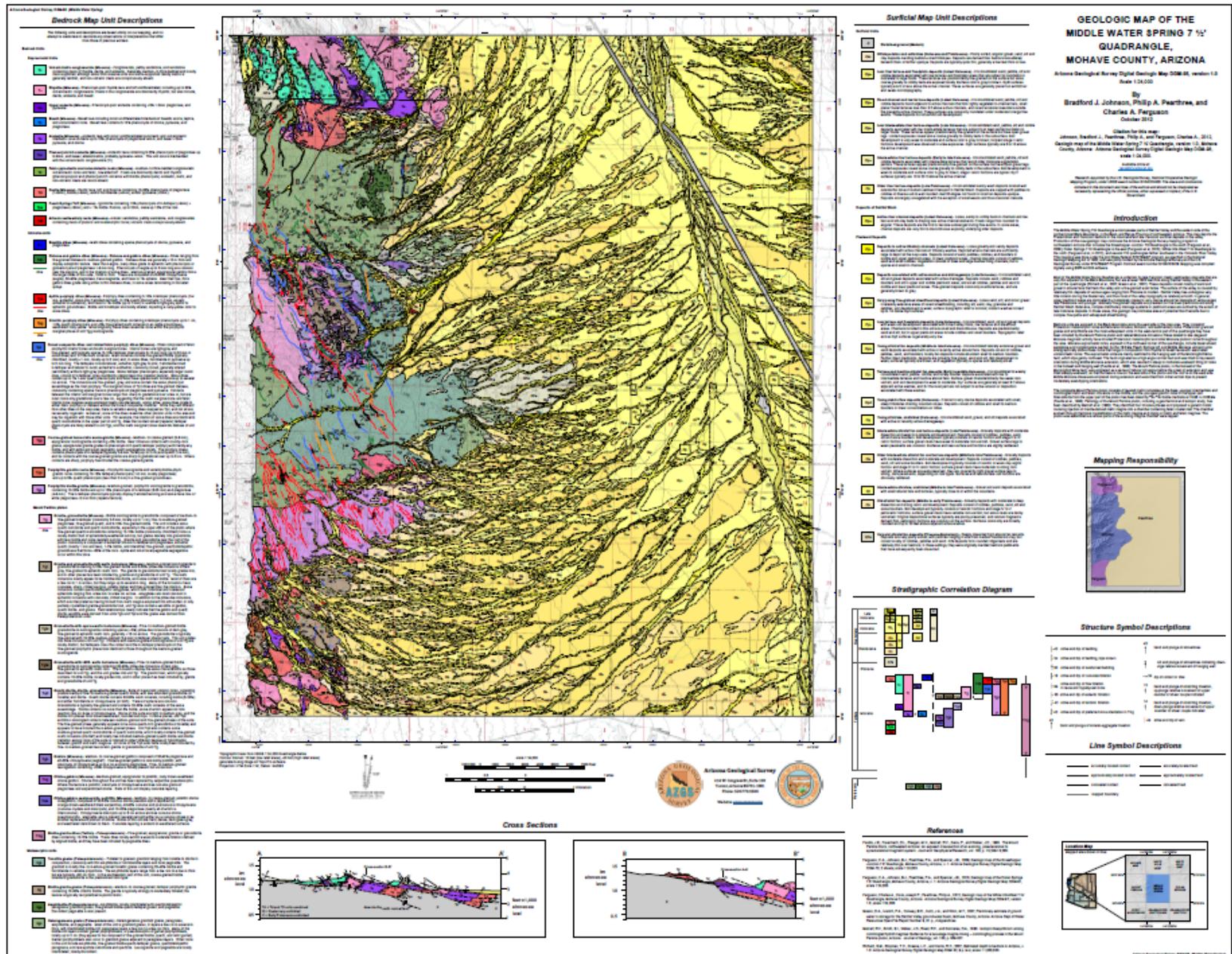
Map Unit Legend Editor (Right): A detailed view of the "d - Disturbed ground" entry. The "Main" tab is selected, showing the following fields:

Map Unit Name	Quaternary hillslope talus and colluvium
Abbreviation	Qtc
Display Age	Holocene
Suggested Display Name	Quaternary hillslope talus and colluvium (Holocene)
Map Unit Description	Unconsolidated to weakly consolidated, very poorly sorted angular rock debris deposited at the base of bedrock slopes.

Buttons for "Heading?", "Save", and "Cancel" are at the bottom right of the editor.

Produce map unit legend





Documentation

- Documented workflow for:
 - Creating NCGMP database
 - Importing field data into geodatabase
 - Compiling geologic maps in Arc
 - Digitizing
 - Attribution
 - Creating map layout

Final words

- OFR to be released later this summer
- Tools work against AZGS NCGMP database
- More collaboration among colleagues for further development would be nice

Questions?