Additional Information to Accompany USGS Data Management Training Modules

Module 1: Value of Data Management

Definitions:

- **Freedom of Information Act (FOIA)** - A statute that generally provides that any person has a right, enforceable in court, to obtain access to records maintained by a Federal executive branch agency, except for those records (or portions of records) protected from public disclosure by one of the FOIA Exemptions. Note that this law applies only to the Executive Branch of the Federal Government, it does not apply to the Legislative or Judicial Branches.
  USGS Guidelines - http://www.usgs.gov/info_qual/
- **Information Quality Act (IQA)** - Section 515 of the Treasury and General Government Appropriations Act for FY 2001 requires federal agencies to publish their "Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information" that they disseminate, establish mechanisms for receiving requests for correction of information, and report annually on the number and nature of complaints received and the steps that were taken to resolve them. http://www.foia.gov/
- **New Federal Open Data Policies**
  - White House Office of Science and Technology Policy (OSTP). 22 February 2013. Memorandum for the Heads of Executive Departments and Agencies: Increasing Access to the Results of Federally Funded Scientific Research.
    http://www.whitehouse.gov/sites/default/files/microsites/ostp/ostp_public_access_memo_2013.pdf
  - Executive Order 12906, Coordinating Geographic Data Acquisition and Access: The National Spatial Data Infrastructure.
    http://www.whitehouse.gov/the-press-office/2013/05/09/executive-order-making-open-and-machine-readable-new-default-government-
  - Office of Management and Budget (OMB) Memorandum 13-13, Open Data Policy, Managing Data as an Asset.
    http://www.whitehouse.gov/sites/default/files/omb/memoranda/2013/m-13-13.pdf

Citations:

- Gordon J. 2013. Use Case: Whirling Disease, video comments to the USGS Data Management Training Modules by Janice Gordon, U.S. Geological Survey Core Science Analytics and Synthesis.

Module 2: Planning for Data Management

Other Resources:

- The DMPTool: free online tool for creating data management plans (DMPs): http://dmptool.org
- DataONE: resources for data management planning: http://dataone.org
- Oak Ridge National Laboratory DAAC: Components of a Data Management Plan: http://daac.ornl.gov/PI/plan.shtml

Citations:

- DAMA, 2008, The DAMA Dictionary of Data Management, First edition: The Data Management Association (DAMA): New Jersey, Technics Publications, LLC, 148 p.
- Smith, S., Tessler, S., McHale, M., Burley, T., 2012, Data Management Planning Framework (DMPf), Part III - Research Data Management Plan (RDMP) – Enterprise, version 2.2, U.S. Geological Survey.

Module 3: Best Practices for Preparing Science Data to Share

Other Resources:

- Fundamental Practice #1- Additional examples of parameter formats:
    - http://daac.ornl.gov/PI/bestprac.html#prac3
- Fundamental Practice #6 - More information and details on QA Checks:
    - https://daac.ornl.gov/PI/archive.shtml
- Fundamental Practice #8 - Example tools to generate checksums:
    - http://www.pc-tools.net/win32/md5sums/
    - http://corz.org/windows/software/checksum/
- USGS Data Management Website - http://www.usgs.gov/datamanagement
- DataONE Data Management Primer: http://www.dataone.org/sites/all/documents/DataONE_BP_Primer_020212.pdf
- ORNL DAAC Data Management for Data Providers: http://daac.ornl.gov/PI/pi_info.shtml

Citations:

- Ackerman, S.D., Andrews, B.D., Foster, D.S., Baldwin, W.E., and Schwab W.C. 2012, High-resolution geophysical data from the inner continental shelf—Buzzards Bay, Massachusetts: U.S. Geological Survey Open-File Report 2012-1002, http://pubs.usgs.gov/of/2012/1002/
- Aranibar, J. N. and S. A. Macko. 2005. SAFARI 2000 Plant and Soil C and N Isotopes, Southern Africa, 1995-2000. Data set. Available on-line

[http://daac.ornl.gov/] from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A. doi:10.3334/ORNLDAAC/783

- Hook LA, Vannan SKS, Beaty TW, Cook RB, Wilson BE, 2010. Best Practices for Preparing Environmental Data Sets to Share and Archive. Oak Ridge National Laboratory. http://daac.ornl.gov/PI/BestPractices-2010.pdf
- Morisette, J.T., C. S. Jernevich, A. Ullah, W. Cai, J.A. Pedelty, J. Gentle, T.J.Stohlgren, J.L. Schnase, A tamarisk habitat suitability map for the continental US., *Frontiers in Ecology and the Environment*, Volume 4, Issue 1 (February 2006) pp. 11–17
- Morisette J. 2013. Importance of Well-Managed Data, video comments to the USGS Data Management Training Modules by Dr. Jeffrey Morisette, U.S. Geological Survey, Fort Collins Science Center.
- Strasser, C., Cook, R., Michener, W., Budden, A. 2012. Primer on data management: what you always wanted to know. DataONE. Accessed August 23, 2013. http://www.dataone.org/sites/all/documents/DataONE_BP_Primer_020212.pdf
- Tenopir C, Allard S, Douglass K, Aydinoglu AU, Wu L, et al. (2011) Data Sharing by Scientists: Practices and Perceptions. PLoS ONE 6(6): e21101. doi:10.1371/journal.pone.0021101
- The Speech Dudes, apophenikos. 2012. "The Dudes Do ATIA Orlando 2012: Day 3. Of Data and Describbling" The Speech Dudes. Word Press. http://speechdudes.wordpress.com/page/4/. Accessed August 15, 2013.