



USDA Forest Service

Groundwater Technical Guide Series Development Program

12/7/13 (v4.1)

Objective: Provide agency staff guidance and recommendations on how to acquire, analyze, and apply high quality groundwater resource data and information to inform management decisions.

Organization: The development program is organized around two primary Technical Guides and integrates complementary technical guidance and methods developed by other agencies and partners.

- 1) Development and publication of the ***Groundwater Inventory, Monitoring, and Assessment Technical Guide*** addressing the foundations of groundwater inventory, monitoring, and assessment, groundwater and groundwater dependent ecosystem inventory, groundwater monitoring methods, and analysis and assessment methods for groundwater resources.
Target date for publication: Review Draft – 2nd Q FY14. Final - 1st Q FY15.
 - a. The ***Groundwater Dependent Ecosystem Inventory Field Guides*** (GTR-WO-86a and 86b, March 2012) providing detailed inventory and data collection procedures for use in planning and assessment (Level I) and project design and analysis (Level II).
 - b. Publication of twelve of ***Groundwater Technical Notes*** describing standard groundwater inventory and monitoring procedures. Target date for publication: Review Draft - November 15, 2013. Final - 1st Q FY15.
 - c. Methods described in the ***Groundwater Technical Procedures of the U.S. Geological Survey*** – Techniques and Methods 1-A-1 (2011) compiled by William L. Cunningham and Charles W. Schalk.
 - d. The Oregon Chapter of The Nature Conservancy's ***Groundwater and Biodiversity Conservation: A methods guide for integrating groundwater needs of ecosystems and species into conservation plans in the Pacific Northwest*** (2007) authored by J.A. Brown, A. Wyers, A. Aldous, and L. Bach.
 - 2) Revision of the ***Technical Guide to Managing Groundwater Resources*** (FS-881, May 2007) to address emerging groundwater management issues, incorporate new science and technology, and remove overlapping content and coordinate information presented with the documents described above. Target date for publication: Review Draft – 3rd Q FY15. Final – 2nd Q FY16.
 - a. Development and publication of ***Groundwater Technical Notes*** describing standardized data collection methods to support groundwater resource management. Target date for publication: Review Draft – 3rd Quarter FY15. Final – 2nd Quarter FY16.
 - b. Methods described in the ***Groundwater Technical Procedures of the U.S. Geological Survey*** – Techniques and Methods 1-A-1 (2011) compiled by William L. Cunningham and Charles W. Schalk.
 - c. Additional components addressing management of groundwater resources being considered for development include:
 - ***Methods Guide for Determining Environmental Flows and Levels*** based on the partnership with The Nature Conservancy and pilot efforts on the Fremont-Winema NF, Oregon Dunes NRA, and Sheyenne NG.
 - Adapting and expanding the Spring Mountains NRA's ***Framework for Springs Stewardship Program and Proposed Action Development*** (2013) authored by M. Coles-Ritchie, S. Solem, A. Springer, and B. Pendleton.
 - ***Project Groundwater Monitoring Methods Guide*** outlining standardized methods suitable for different groups of projects potentially affecting groundwater resources.
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