

John R. Gray

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OBJECTIVE

Emeritus Scientist with national & international experience/expertise in river sedimentology & surface-water hydrology/quality seeks to remain professionally active after a 37-year career with the U.S. Geological Survey.

PROFESSIONAL EXPERIENCE

2014-Present – Principal, GraySedimentology.com, and Scientist Emeritus, U.S. Geological Survey

1996-2014 – National Sedimentologist, USGS Office of Surface Water (OSW), Reston, VA

- **Policy, Guidance, & Support:** National leader responsible for the technical integrity & continuity of USGS sediment-monitoring programs & selected aspects of fluvial-sediment & water-quality research. Developed & published guidelines nationally & internationally to ensure commonality in data-collection, -analysis, -storage, & -publication procedures.
- **Review:** Led or participated in technical assessments of USGS sediment data-collection programs, research projects & laboratories in 20 States; consulted on proposed or active projects around the U.S.
- **Training:** Oversight of USGS sediment training. Administered USGS training courses “Sediment Data-Collection Techniques” (coordinator and instructor, 1997-2013) & “Sediment Records Computation and Interpretation” (coordinator, 1989-94; instructor, 1989-2014). Led classroom & field-based training on Brazilian rivers near Puerto Alegre (2007) & for the Mekong River Commission in Thailand (2011).
- **Leadership, Representation, & Initiative:** Thrice chair of, & 18-year USGS representative on the Federal Subcommittee on Sedimentation, the top-level U.S. committee that addresses & coordinates responses to the U.S.’s sediment-information needs. USGS representative on the Technical Committee, Federal Interagency Sedimentation Project that produces the sediment instruments & methodologies used in the U.S. & internationally (1993-2002 & 2010-13). Founding member, World Association for Sedimentation and Erosion Research (2004-10). USGS lead on Annex 4 (Sediment Transport), USGS-Chinese Protocol on Surface-Water Hydrology. Liaison to the International Research and Training Centre for Erosion and Sedimentation, Beijing, & Yellow River Conservancy Commission, Zengzhou. Organizer/lead for well-documented regional & national symposia & workshops. Invited speaker at national & international conferences, including the International Symposium on River Sedimentation in Moscow, Russia (2007).
- **Project Oversight:** Conceived & led the Subcommittee on Sedimentation’s Reservoir Sedimentation Database project within the OSW. Conceived & led calibration of pressure-difference bed-load samplers in the St. Anthony Falls Laboratory Main Flume, Minneapolis, Minnesota, U.S.
- **Research:** Conceived & led ongoing successful USGS efforts to shift from labor-intensive & expensive methods for monitoring suspended-sediment & bed-load transport to mostly in situ surrogate technologies (1997-2013). Led expose’ on unreliability of the Total Suspended Solids (TSS) analytical method for quantifying the solid-phase content of surface waters.
- **Techniques Development:** Conceived & led development of the Graphical Constituent Loading Analysis System (GCLAS) for computing time-series sediment & water-quality loads.

1993-95 – Office of Water Quality (OWQ), USGS, Reston, VA

- **Acting Assistant Chief:** Supported the OWQ Chief in planning & operational activities (1994-95).
- **Staff Hydrologist:** Responsible for surface-water quality guidance/policy/support (1993-94). Coauthored the interagency Stream Corridor Restoration Handbook.

1991-93 – Director’s Office, USGS, Reston, VA

- **Staff Assistant to the Director:** Supported the USGS Director by coordinating with the four USGS divisions; Budget, Congressional Affairs, & Public Affairs Offices; & Department of the Interior.

1987-91 – USGS Arizona District, Tucson, AZ

- **Unit Leader:** Led contaminant-hydrology team studying occurrence and movement of radionuclides in surface- & ground-water resources of northeast Arizona & northwest New Mexico, U.S.
- **Project Chief:** Led projects on radionuclide transport in the Puerco & Little Colorado Rivers, & on suspended-sediment & bed-load transport in the Colorado River, Grand Canyon, Arizona.
- **Development:** Conceived & produced SEDCALC, the first USGS sediment-load computation software.

1982-87 – USGS Illinois District, Urbana

- **Project Chief:** Led study of sediment transport & geomorphology at a nuclear-waste disposal facility.

1977-82 – USGS Illinois Sub-district, Dekalb

- **Staff Hydrologist:** Streamgauged, monitored water quality, & collected/computed sediment records.

OTHER PROFESSIONAL & VOLUNTEER EXPERIENCE

2015-Present – Board Member, Minocqua/Kawagasuega Lakes Protection Association, and Leader of the Lakes Water-Quality Committee

PROFESSIONAL CERTIFICATIONS & SELECTED AWARDS/HONORS

- Certified Professional Hydrologist & member, American Institute of Hydrology.
- Member, American Society of Civil Engineers (through 2013).
- Member, American Geophysical Union.
- Review Board Member, International Journal of Sediment Research (through 2012).
- USGS Superior Service Award (2004).
- Subcommittee on Sedimentation’s Career Recognition Award (2013).
- Department of the Interior Distinguished Service Award (2014).

EDUCATION

- Post-graduate education in Civil & Environmental Engineering, Virginia Tech, Falls Church, VA.
- M.S., Civil (Hydrosystems) Engineering, University of Illinois, Urbana-Champaign.
- B.S., Biology (Ecology), minor in Chemistry, Northern Illinois University, Dekalb.
- Various additional academic-, professional-, & government-sponsored training over the years, but the most valuable and enduring education was acquired via the “School of Hard Knocks.”

BIBLIOGRAPHY

- >100 peer-reviewed reports, journal articles, proceedings papers & abstracts (see GraySedimentology.com).

COMMUNITY LEADERSHIP/PERSONAL

- Director for two USGS 5K foot races (1995, 1998); former Reston Youth Basketball League basketball commissioner (5 years); former coach for youth basketball, baseball, softball & soccer; science volunteer at local schools; American Civil War, and general history enthusiast; avid reader and gardener; regular exerciser (bicyclist, swimmer, former distance runner, canoeist, hiker); proud father of two successful & wonderful adult children; 1977-to-present husband of a most-fortunate & adoring wife.