

## **Betsy Smith, Physical Scientist, in EPA's National Exposure Research Laboratory**

Systems Exposure Division

[Mailing Address](#)

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**Areas of Expertise:** Broad-scale monitoring and assessment, integrated assessment, sustainability assessment, landscape ecology, statistical ecology, time-series analysis, comparative and cumulative risk assessment across media, leadership of multi-disciplinary teams, application of research results towards decision-making, systems-based approaches to assessment and decision-making, decision science, forecasting alternative future scenarios.

### **Select Publications:**

Smith, Elizabeth R.; Neale, Anne C.; Ziegler Richard C.; and Jackson, Laura E. 2014. New Interoperable Web Tools to Facilitate Decision-making to Support Community Sustainability. IN Mueller, Michael P.; Tippins, Deborah J.; Stewart, Arthur J. (Eds.) Assessing Schools for Generation R (Responsibility):A Guide to Legislation and School Policy in Science Education Series: Contemporary Trends and Issues in Science Education, Tentative volume 41, Chapter 14. Springer.

Tran, Liem T.; O'Neill, Robert V.; Smith, Elizabeth R.; Bruins, Randal J.F.; and Harden, Carol. 2013. Application of hierarchy theory to cross-scale modeling of nutrient loads. *Water Res. Mgmt.* Jan 2013.

Mehaffey, Megan; Smith, Elizabeth: and Van Remortel, Rick. 2012. Midwest US landscape change to 2020 driven by biofuel mandates. *Ecological Applications* 22 (1): pp 8-19.

Tran, L.T., O'Neill, R.V., and Smith, E.R. 2012. A watershed-based method for environmental vulnerability assessment with a case study of the Mid-Atlantic region. *Environmental Impact Assessment Review* 34(2012):58-64.

MacPherson, A.J., Principe, P.P, and Smith, E.R. 2010. A directional distance function approach to regional environmental-economic assessments. *Ecol. Econ.* 69 (10):1918-1925.

Smith, E.R., M. H. Mehaffey, R.V. O'Neill, T.G. Wade, J.V. Kilaru, and L.T. Tran. 2008. Guidelines to assessing regional vulnerabilities. EPA/600/R-08/078. 78pp.

View more research publications by [Betsy Smith](#).

### **Education:**

- Ph.D., Ecology, The University of Tennessee, 1990

- M.S., Forest Biometrics, The University of Tennessee, 1983
- B.S.F., Forestry, The University of the South, 1978

**Professional Experience:**

- Task lead, SHC Sustainable Port Communities, 2016 – present
- Associate National Program Director, Sustainable and Healthy Communities Program, 2011-2016
- Project lead, Future Midwestern Landscapes Project, ESRP, 2006-2008
- Director, Regional Vulnerability Assessment Program, 1998-2009
- Team Lead, Landscape Sciences Team, Tennessee Valley Authority, 1990-1998
- Research Forester, Tennessee Valley Authority, 1984-1989
- Research Associate, Dept of Forestry, Fisheries, and Wildlife, The University of Tennessee, 1983-1984

Honors and Awards:

- EPA ORD S-awards for outstanding performance, 2011, 2008, 2003, 2012, 2013, 2014
- U.S. EPA, ORD Bronze Medals for Commendable Service, 2015, 2012, 2007, 2006 and 1998.
- EPA ORD Science and Technological Achievement Award Honorable Mention, 2010
- EPA ORD Science and Technological Achievement Award, 2003
- SAMAB's Hinote Award for sustained personal dedication to the objectives of the Southern Appalachian Man and the Biosphere Cooperative, 1997
- Vice President Gore's Hammer Award for the Southern Appalachian Assessment, 1997
- Southern Appalachian Man and the Biosphere (SAMAB) Appreciation Award, 1993
- Sigma Xi - Science honorary society