

Nutrient Innovation Showcase

USGS Gosnold Laboratory
Quissett Campus
384 Woods Hole Road
Woods Hole, MA 02543

June 18, 2018

8:30 am to 5:15 pm

A day of presentations and field visits to learn about:

- ◆ Nutrient challenges on Cape Cod and nationwide
- ◆ Advances in nutrient treatment technology
- ◆ Watershed-scale science and technology for addressing nonpoint source nitrogen problems
- ◆ Technology demonstrations of winning solutions from recent Innovation Challenges

Presenters will include:

- ◆ Technical experts in nutrient pollution control
- ◆ Senior state and federal environmental officials
- ◆ Local government representatives from Suffolk County and the Cape Cod Commission
- ◆ Other local partners in nutrient research

Agenda

8:30 am *Arrival and coffee; lunch selection (optional)*

We encourage you to remain at the USGS facility for lunch to network with fellow participants. Bring a lunch if you like; lunches are also available for purchase for \$15 (cash only). Please review the menu at the sign-in desk, and make your selection and payment by 9:30am.

8:50 am *Welcome, introductions, opening remarks*

USGS: Keith W. Robinson, Director of the New England Water Science Center and the lead of the Water Mission Area
EPA Region 1: Alexandra Dunn, Regional Administrator
MADEP: Gary Moran, Deputy Director
EPA Office of Research and Development: Jennifer Orme-Zavaleta, Principal Deputy Assistant Administrator for Science

9:30 am *Framing the nitrogen issue for Cape Cod, MA, and Suffolk County, NY*

Cape Cod Commission: Kristy Senatori, Acting Director
Suffolk County: Kenneth Zegel, Associate Public Health Engineer
USGS: Denis LeBlanc, Research Hydrologist

10:45 am *Coffee break*

11:00 am Technology demonstrations

Nutrient sensor challenges

- ◆ *Syستا, WIZ sensor demonstration: Bethany Steevens*
- ◆ *University of Connecticut: Yuankai Huang and Xu Zhiheng*
- ◆ *T.E. Laboratories: Mark Bowkett, CEO*

Physical models

- ◆ *Permeable Reactive Barriers: Kenneth Foreman, Director, Semester in Environmental Science, Marine Biological Laboratory (MBL)*
- ◆ *Bioreactor test column; Jessica Janiec and Rick McKinney, EPA-ORD*

12:15 pm Lunch

12:45 pm Alternative approaches to achieve watershed nitrogen reduction goals (partnerships, financing, problem solving)

Barnstable Clean Water Coalition: Zee Crocker, Executive Director

1:15 pm Field trip

Sampling nitrogen from ground water test well array, Maravista peninsula
Denis LeBlanc and Tim McCobb, USGS

Massachusetts Alternative Septic System Test Center (MASSTC)
George Heufelder, Director, MASSTC

Waquoit Bay National Estuarine Research Reserve: Shoreline Permeable Reactive Barrier
Kenneth Foreman, MBL

5:15 pm Return to USGS Gosnold Laboratory, Woods Hole, MA

Field trip logistics

- ◆ We will be driving to our field trip destinations (addresses and maps are included in your registration package).
- ◆ Please take advantage of carpool opportunities (sign up at registration).
- ◆ For our state and ORD partners who have dinner plans Monday evening in Narragansett, RI, we recommend that you drive separately and depart directly from MASSTC (after the second stop on the field trip) rather than continue on to the next stop.