



Distilled biosolids and residuals news for New England and eastern Canada

June 30, 2021



Happy Canada Day and U.S. Independence Day!

UPCOMING EVENTS:

Mid-Atlantic Biosolids Association's Summer Technical Symposium, July 13th through the 29th, Tuesdays & Thursdays, 12 to 1:30 pm.

The National Association of Clean Water Agencies will host a virtual Utility Leadership Event, July 20th and 21st.

Lunch & Learn about Urine Diversion and the work of the Rich Earth Institute in Vermont on July 23rd.

Waste Conversion Technology Conference & Trade Show, August 16th - 18th in San Diego, CA.

Lunch & Learn about Water Research Foundation Project #5307 (Evaluation of Source Separated Organics Feedstock Pretreatment & Management Practices) on August 27th.

Save the Date! Northwest Biosolids Association will host its annual Biofest virtually, September 15 & 16th, 20th & 21st.

FOR MORE EVENTS, go to NEBRA's [Events Page](#).

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- **MABA Issues**
- **Request for**
- **Expression of**
- **Interest for**
- **Executive**
- **Director**
- For more information, go
- to NEBRA [Job](#)
- [Opportunities](#).
- Applications are being
- accepted via [Indeed](#).
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CHECK IT OUT:

The new [Waters Up](#) Podcast from the Maine Water Utility Association and the Maine Water Environment Association for continuing education credits!

Speaking of education, the Southern Regional Extension Forestry hosts an award-winning "multi discipline" web platform called [The Webinar Portal](#) with on-demand webinars from the National Resources Defense Council and on topics like climate change, bio-energy, and agriculture.

Sludge to bioplastics: [virtual tour](#) of clean water facility in Wuppertal-Buchenhofen, Denmark, that is cultivating Polyhydroxyalkanoates (PHA)-producing bacteria.

Smart, new aqua farm in Korea using [hot wastewater](#) from nearby power plant.

[Water bears](#) in space? They are pretty hardy.

Cruella DeVille going on an adventure in the [New York City sewers](#)? Glen Close would be interested.

Telangana (India) Girl Builds Low-Cost [Homes From Sewage Pipes](#) - you have to see!

This [map lets you fly along the path of a drop of water](#) from any place in the U.S.

Confederate [statue to toilet](#)?

NEBRA Responds to Sierra Club's "Sludge in the Garden" Report

The Sierra Club issued a [report](#) on May 25th titled "Sludge in the Garden: Toxic PFAS in Home Fertilizers Made from Sewage Sludge" about a study done in conjunction with the Ecology Center of Michigan. For the study, the Sierra Club purchased 9 biosolids-based soil amendments and fertilizers and tested them for per- and poly-fluoroalkyl substances (PFAS). The products purchased included D.C. Water's BLOOM, Tacoma, Washington's TAGRO, and Earthlife which contains biosolids from the Massachusetts Water Resources Authority. [Read more](#).

NEBRA Members: watch for the July Research Abstracts which will also respond to the Sierra Club report with a "PFAS Reality Check".

NACWA Builds on NEBRA Work, Issues "How-To" Guide for Modeling PFAS Fate and Transport

The National Association of Clean Water Agencies (NACWA), in partnership with the National Council for Air and Stream Improvement (NCASI) and the American Forest and Paper Association (AF&PA), issued a new report in June prepared by Stone Environmental as a "how-to" guide to understanding the Pesticide Root Zone Model (PRZM) and how it may be used to screen for per- and polyfluoroalkyl substances (PFAS) potentially leaching into groundwater from land applied residuals and biosolids. [More...](#)

Table 6. Example Calculations to Determine Maximum PFAS Application Rates and Maximum Allowable Initial PFAS Concentrations for a Given Biosolids Application Rate

	PWC Simulation Results		Screening Level Calculations for DWLOC = 70 ppt			
	Annual Applied Mass Rate (mg/ha)	Worst Case Post Breakthrough Conc. (ppt)	Attenuation Dilution Factor (mg/ha/ppt)	Maximum Annual Mass Rate (mg/ha)	Biosolids Mass Annual Application Rate (t/ha)	Biosolids Solid Content (%)
PFOA	49.3	11	4.48	314	44.83 (20 us ton/acre)	32
PFOS	108	22	4.91	344		35

The highest post breakthrough groundwater concentrations were from the Maine Caribou soil scenario for both PFOA and PFOS (11 ppt and 22 ppt, respectively). Using the modeled annual chemical application rates, the attenuation dilution factors $d = m_b / c_{bw}$ are 4.48 mg/ha/ppt for PFOA and 4.91 for PFOS. By

Florida Revises Biosolids Regulations, Major Impacts Expected

The Florida Department of Environmental Protection (FDEP) has made major revisions to its biosolids regulations to implement the provisions of 2020 legislation, [SB-712](#), which was focused on abating nutrient impacts on Florida's water resources. The regulations promise to have major impacts on biosolids management programs and costs and will significantly curtail the land application of Class B biosolids in the State of Florida starting in July of 2022. [More...](#)

DOE Awards \$27.5 Million for 16 Water Resource Recovery Systems Projects, NEBRA Partners with UConn on AD Research Project

The U.S. Department of Energy (DOE) recently awarded \$27.5 million in grants for [16 research projects](#) to advance resource recovery from wastewater. DOE has focused resources on water resource recovery facilities (WRRFs) in the past, mainly energy efficiency grants, and has found that the amount of energy coming into WRRFs in the wastewater far exceeds the energy required to operate the WRRFs. These grants seek to harness that energy, generate enough to power the facility and even export energy in the form of renewable fuels. [Read more...](#)

COVID – The End May Be Near But WBE Advancements Will Continue

The end of the COVID pandemic can't come quick enough! There is finally light at the end of the COVID tunnel with at least some semblance of normality returning to our worlds. The vaccination systems in the States and Provinces are picking up speed. The North East Biosolids & Residuals Association (NEBRA) is daring to hope for an in person conference in the Fall! But something we don't want to leave behind is wastewater-based epidemiology (WBE) which has proven to be a valuable tool for detecting the SARS-CoV-2 virus, its variants and other viruses to come. Afterall, water resource recovery facilities (WRRFs) are in the public health business. [Read more...](#)

In Brief / en bref...

NEBRA Issues Letter to Support Changes to Compost Labeling

On June 11th, the North East Biosolids & Residuals Association sent a [letter](#) to the American Association of Plant Food Control Officials (AAPFCO)'s Terms and Definitions Committee in support of the U.S. Composting Council's proposed changes to compost product labels and information about phosphorus that reflects its actual availability in organic-based fertilizers such as biosolids, manures, digestates, and composts. The changes would allow for water extractable phosphorus (WEP) testing and information on the label indicating the "slowly-available" phosphate based on that WEP testing which NEBRA believes the new labels will more accurately reflect the value of organic-based fertilizers.

NACWA Continues Advocacy Work Around PFAS Concerns

On June 14th, the National Association of clean water agencies penned a [letter](#) to the US Environmental Protection Agency's new Council on per- and polyfluoroalkyl substances (PFAS). The recommendations, which are detailed in the letter, include increased federal research on PFAS toxicity/risk, PFAS source reduction using the Clean Water Act (CWA) and the Toxic Release Inventory regulations, faster development of CWA analytical methods and EPA's efforts to complete a Biosolids Risk Assessment, protections for "Passive Receivers" against CERCLA Liability, and an aggressive risk management approach using the Toxics Substances Control Act. [Read more...](#)

Maine's Longtime Residuals Program Supervisor Taking New Position at DEP

Maine Department of Environmental Protection (MEDEP)'s Residuals Management Unit supervisor Carla Hopkins has taken a new position as the Director of the MEDEP's Division of Remediation. She will be replacing Dave Wright who is retiring. Ms. Hopkins supervised the MEDEP's residual program for 15 years, overseeing the response to and dealing with the fallout from the high-profile PFAS contamination issue on dairy farms in Arundel and Fairfield. Congratulations to Carla! NEBRA has enjoyed working with her on behalf of our members' issues over the years. Biosolids/residuals managers in Maine should continue to work with the Project Manager in their [Region](#). For technical questions about organics management, composting, or anaerobic digestion, continue to reach out to Mark King (Mark.A.King@maine.gov or 207-592-0455). Jim Pollock will be the contact for PFAS-specific inquiries. All analytical data (including PFAS testing results) should continue to be submitted to DEPEDD@maine.gov and your regional project manager.

CASA Updates Biosolids Publication

The California Association of Sanitation Agencies (CASA), a frequent collaborator with the North East Biosolids & Residuals Association, recently published some updated biosolids educational materials on its website including a 2-pager titled "[Biosolids: A Renewable Resource](#)". Also available on CASA's website is a very good [primer](#) on biosolids land application that was developed in response to the California Air Resources Board questions about methane emissions from biosolids land application. It provides a good overview of some of the regulations and research that govern land application programs in California.

Senate Bill Proposes Grants to Support Wastewater to Energy Systems

Senator Tammy Duckworth (D-Illinois) introduced the Drinking Water and Wastewater Infrastructure Act of 2021 back in March, which would establish a "Wastewater Efficiency Grant Pilot Program." The bill ([S-914](#)) passed the Senate in May and is currently in the House. Section 222 of S-914 describes the grant program which will be open to "owners or operators of publicly owned treatment works to carry out projects that create or improve waste-to-energy systems." If approved, the pilot program will include up to 15 grants awards which may be used for projects related to sludge collection, installation of anaerobic digesters, methane capture and transfer, facility upgrades and retrofits necessary to create or improve waste-to-energy systems, and other new and emerging, but proven, technologies that transform waste to energy. The maximum grant under the current proposal would be \$4,000,000.

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Thank You!

NEWEA Green Steps Award: Nomination Deadline Extended

The New England Water Environment Association (NEWEA)'s Sustainability Committee has extended the deadline for submitting nominations for its Green Steps Award. The [Green Steps Award](#) celebrates innovation and sustainability within the wastewater and stormwater industry. The nominee must be an organization or utility that demonstrates initiative and leadership in the implementation of innovative, sustainable practices.

NEBRA member [Resource Management, Inc. \(RMI\)](#) received the [Green Steps Award](#) last year for its successful piloting of low-temperature belt-type biosolids dryer/dehumidification units at Water Resource Recovery Facilities in Hooksett, New Hampshire and Brattleboro, Vermont.

The deadline to [apply](#) is August 18th!

Looking for Content

NEBRA is always looking for good content -- like [stories for NEBRAMail](#) and [topics for webinars](#). We welcome articles from and presentations by members. If you have any ideas or suggestions, please contact the [NEBRA office](#).



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