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## Interim Best Management Practices for Emerging Contaminants in Certified Biosolids

### **What are biosolids?**

“Biosolids” are defined by RSA 485-A:2, XXII as “any sludge derived from a sewage wastewater treatment plant that meets the standards for beneficial reuse specified by the Department [of Environmental Services].” In other words, biosolids are made by taking sludge produced from a sanitary source, such as a wastewater treatment facility (WWTF), and treating it in order to use it for beneficial use. In order to produce biosolids, a facility must obtain a certificate from the Sludge Quality Certification (SQC) Program through the New Hampshire Department of Environmental Services (NHDES). This program sets the standards that sludge is required to meet before it can be made into biosolids and used for beneficial use. More information about this program can be obtained from the [Sludge Quality Certification Fact Sheet](#).

### **What are the benefits of biosolids?**

Farmers and gardeners know that soil condition is one of the most important factors in crop production. Not only does the organic material in biosolids act as a fertilizer and soil conditioner, but other sought-after benefits include:

- Enhanced soil health.
- Increased organic matter in soils.
- Nutrient recycling.
- Carbon sequestering (mitigates climate change).
- Reduced need for fertilizers and pesticides.
- Bolstering of farm economies by providing low-cost soil supplements.
- Restoring vitality to degraded lands.

While the above list demonstrates that biosolids have many benefits, it’s still essential to monitor the application of biosolids to ensure the protection of public health and the environment. Facilities producing biosolids must maintain their SQC in order to ensure they continue to make a beneficial reuse biosolid product that meets all current requirements. Additionally, these facilities need to establish and follow a set of best management practices for responding to emerging contaminants.

## **What are emerging contaminants?**

The EPA defines emerging contaminants “as a term used by water quality professionals to describe pollutants that have been detected in water bodies that may cause ecological or human health impacts, and typically are not regulated under current environmental laws. Sources of these pollutants include agriculture, urban runoff and ordinary household products (such as soaps and disinfectants) and pharmaceuticals that are disposed to sewage treatment plants and subsequently discharged to surface waters.” NHDES monitors emerging contaminants and works to establish screening standards within the SQC Program in order to protect human health and the environment.

NHDES is currently investigating the impacts of chemicals such as per- and polyfluoroalkyl substances (PFAS) that may be present in biosolids and the impact on soil, surface water and groundwater when the material is used for beneficial use in agriculture. Additionally, NHDES is working to establish soil leaching standards for PFAS compounds, which will be used to determine PFAS concentration limits for land applied biosolids. Once established, any sludge that does not meet the standard will no longer be certified for use as biosolids and will not be allowed to be distributed for beneficial use.

NHDES has developed this set of Interim Best Management Practices (BMPs) for communities to use in order to produce and provide the highest quality biosolids possible while NHDES continues to study and determine appropriate regulatory limits. NHDES is suggesting these Interim BMPs but encourages communities to take action by adopting a specific version of these Interim BMPs and any other BMPs for your facility to provide the highest quality biosolids to the end user.

## **Interim Best Management Practices**

PFAS compounds are man-made and are not created by the wastewater treatment process; these compounds are transported from their source to the wastewater treatment facility. NHDES is currently in the early phase of understanding the exact sources that impact our treatment systems, but these Interim BMP's will help you to start to identify potential sources in your community.

### For industrial and commercial establishments:

- Educate those that use your facility about emerging contaminants such as PFAS compounds. Inform them that your community produces biosolids and educate them on how they can help maintain high quality biosolids.
- Encourage them to avoid products that contain emerging contaminants. Suggest that they begin asking their suppliers if those compounds are in the products they use. If so, they should ask if there are other alternatives.
- Inform these partners of the liability to both the community and themselves if contaminants pass through the facility and emphasize the importance of their cooperation in limiting emerging contaminants.
- Inform these partners that the NHDES Pollution Prevention Program (NHPPP) provides free, non-regulatory, confidential assistance with any pollution prevention questions. They can also provide information on new technologies, pollution prevention products and vendors, and fact sheets. Please contact them at (603) 271-6460 for assistance.

For your facility:

- Screen and test your collection system to determine if any sections contribute higher levels of PFAS and trace the PFAS back to the source.
- Ensure your pretreatment program is prepared, involved, and ready to regulate emerging contaminants. For example, by having an up to date Sewer Use Ordinance.
- Establish rates that ensure you are fulfilling interim BMPs and for insurance to protect your facility and the public.
- Maintain a budget in order to screen for emerging contaminants.
- Screen sludge from other facilities, commercial septage, and/or landfill leachate and evaluate if these sources will negatively impact the quality of your biosolids.
- Create an education program for residents on the benefits of biosolids and explain what they can do to help create high quality biosolids. Encourage them not to use or buy products that contain PFAS.
- Document your efforts and include them in your SQC annual report.

**For more information**

Dealing with emerging contaminants is a challenge and NHDES encourages communities that produce biosolids to stay involved and informed on these issues. While NHDES will provide timely communication on important issues, you can still reach out to us at any time. If you have questions, comments or concerns, please contact the NHDES Residuals Management Section at (603) 271-2818 or [SludgeandSeptage@des.nh.gov](mailto:SludgeandSeptage@des.nh.gov). We are also available to provide technical assistance or to discuss any of the information provided in this fact sheet.