



# 2024 ANNUAL REPORT

## Code of Good Practice of the Virginia Biosolids Council

The Virginia Biosolids Council Code of Good Practice provides guiding principles to its members. Like anything else, the Code requires constant review and, if appropriate, updating. Our Code receives a thorough evaluation annually. This annual report provides progress on how the Council's membership performed in 2024. We provide this update annually.

### **VIRGINIA BIOSOLIDS COUNCIL**

The Council includes representatives of municipal utilities throughout Virginia and Washington, D.C., and contractors that beneficially recycle biosolids. We exist to educate the public and to provide information on the production, beneficial use, and recycling of biosolids. The Council's staff also provides support to its members on regulatory and legislative matters.

Member commitment to a Code of Good Practice requires an ongoing effort to go beyond compliance with the state's extensive regulatory requirements for biosolids. It also addresses social responsibility and the need for transparency to the public.

Biosolids are carbon- and nutrient-rich material produced during wastewater treatment. Solids and nutrients are recovered from wastewater that would otherwise be discarded, and processed into an effective, soil-enhancing product. When recycled, biosolids boost crop yields, improve soil health, and help fight and adapt to climate change by capturing carbon in the soil. Biosolids are an endlessly renewable, safe, reliable resource with multiple benefits — good for people and the planet.



## PERFORMANCE SUMMARY

Under the direction of the Board of Directors, the Council made the decision several years ago that a Code of Good Practice would enhance the accountability of biosolids generation and use in Virginia. The Council began producing annual reports on its performance in 2016.

This past year represented a year when our members focused on the quality of their products and research.

Information on biosolids inspected and complaints collected by the Department of Environmental Quality (DEQ) supplies the Council with measurements of our organization's performance. Provided below is a summary of this information, which is available to the public.

- In 2024, biosolids were applied to 37,786 acres, compared with 36,145 in 2023. The acreage where biosolids was recycled is less than 1% of all agricultural land in Virginia.
- In 2024, DEQ conducted 227 inspections on fields where biosolids were recycled, slightly down from 230 inspections in 2023. Council members received 15 warning letters and 0 notice of violations (NOV).
- In 2024, DEQ reported 18 biosolids-related complaints from the public, down from 20 the year prior. The complaints recorded by DEQ were odor-related, surface and groundwater runoff, or track-out.

The Code, while emphasizing outreach, also provides guidance for our operators for the management and public outreach of their activities. Virginia DEQ's biosolids regulations require property owners adjacent to an application site to be notified about the intent to use biosolids, or notified in advance of any public permit meeting. Our members work with DEQ to address questions or concerns that originate from community stakeholders either during a public comment period or at informational meetings.

- In 2024, DEQ distributed 1,553 notices for public meetings and adjacent landowner notification. The total number of responses resulting from these notifications was 60. Five (5) persons submitted requests for extended setbacks.



## PFAS AND PFOA

**Per- and Polyfluorinated Substances**, commonly called **PFAS**, are man-made compounds that can be found in a variety of household and commercial items. Research surrounding human health impacts, accurate measurements of PFAS, and available treatment technologies is still emerging. PFAS have been in use since the 1940s and are found in a wide range of products used by consumers because they are resistant to heat, water, and oils. The best way to prevent PFAS chemicals from being released into the environment is minimizing use of products containing PFAS, especially when PFAS-free alternatives are available.

Concentrations of PFAS, for instance, in wastewater and biosolids have been going down because of greatly reduced manufacturing of PFOA and PFOS in commercial products. The cessation of manufacturing of PFOA and PFOS in the U.S. has resulted in significantly declining levels of PFAS in human blood samples, which demonstrates the potential of eliminating sources of PFAS compounds.

In Virginia, the tracking of PFAS at industrial sites, airports, and other suspected locations has proved effective at identifying “hot spots” of potential PFAS sources, and subsequent regulatory clean-up responses to reduce PFAS releases to public sewers have also been effective.

While research is still ongoing, recent findings to date have not shown adverse impacts of biosolids-borne PFAS on human health and the environment. This research has found low risks to groundwater and crops from sites where biosolids were land applied with average, “background” levels of PFAS concentrations. It is important to note that human exposures to PFAS compounds come not from biosolids and their use but from ubiquitous sources in our society — food packaging, cosmetics, carpets, and even household dust.

## DEQ LANGUAGE:

Addressing PFAS has been an active and ongoing priority for the U.S. Environmental Protection Agency (EPA) and DEQ. Since 2021, DEQ has been monitoring PFAS in streams, rivers, and reservoirs to understand the prevalence of these substances and to identify potential locations where PFAS concentrations are elevated.

In January, the EPA released its Draft Sewage Sludge Risk Assessment for **Perfluorooctanoic Acid (PFOA)** and **Perfluorooctane Sulfonic Acid (PFOS)**. The VBC commented on the record. Our organization requested the risk assessment not be finalized until additional data is considered using new or soon to be published research on this subject — some of which is EPA funded — as our members believe the draft risk assessment grossly overestimates actual risk. We further requested that future EPA communications regarding the risk assessment highlight the fact that it was completed without an essential risk management component or comparative risk analysis, which is unprecedented.



**Scan to read VBC comments on U.S. EPA's draft risk assessment.**

## THE COUNCIL'S COMMITMENT

Our collective response is to support research activities that can help formulate good, science-based policy. The VBC established a Research Fund in 2019 to focus on biosolids research, and particularly research on emerging chemicals, including PFAS and PFOA. VBC supported the research of Dr. Ian Pepper: *National Collaborative Study on the Incidence and Mobility of PFAS Following Land Application of Biosolids*, and facilitated and supported several EPA-funded studies at the Progress Farm at Hampton Roads Sanitation District.

A critical factor limiting the ability to determine health risks is the lack of data. This was particularly evident in EPA's Sewage Sludge Risk Assessment for PFOA and PFOS. One effort to address this limitation was involvement in a nationwide collaborative project initiated by the University of Arizona. This project comprises field studies conducted across broad geographic regions of the U.S. with differing soils, climates, and depth to groundwater. VBC contributed to this research effort by submitting data from its own research plot developed in conjunction with Virginia Tech at the University's Agriculture Research and Extension Center in Warsaw. The University of Arizona will begin Phase II of its study in 2025, and VBC anticipates supporting this effort as well.

VBC individual members are also initiating their own research on this matter. The Hampton Roads Sanitation District has four projects underway at a research area on its property.



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# CODE OF GOOD PRACTICE ANNUAL REPORT 2024

To support and encourage biosolids research in Virginia, the Council spearheaded HB 2517 during the 2025 General Assembly. It was approved and signed by the Governor and exempts certain permitting requirements for land application, marketing, and distribution of sewage sludge for any land application for a research project when the land is owned by an institution of higher education in Virginia. While research on PFAS and biosolids is important, it is critical that control of PFAS begin at the sources of its creation in society. It is important that we understand its prevalence in our households, on our clothes, on the makeup we use, and in our food packaging, among other sources. The best way to prevent PFAS chemicals from being released into the broader environment is to minimize use of PFAS-containing products.



## SUMMARY

The Council is committed to bringing information directly to stakeholders — both person-to-person outreach and through its social media channels, and providing fact-based information. Good policy demands good science. Our steadfast commitment to science that supports the development of good, sound policy is essential to ensuring farmers who choose to use biosolids can continue to do so.



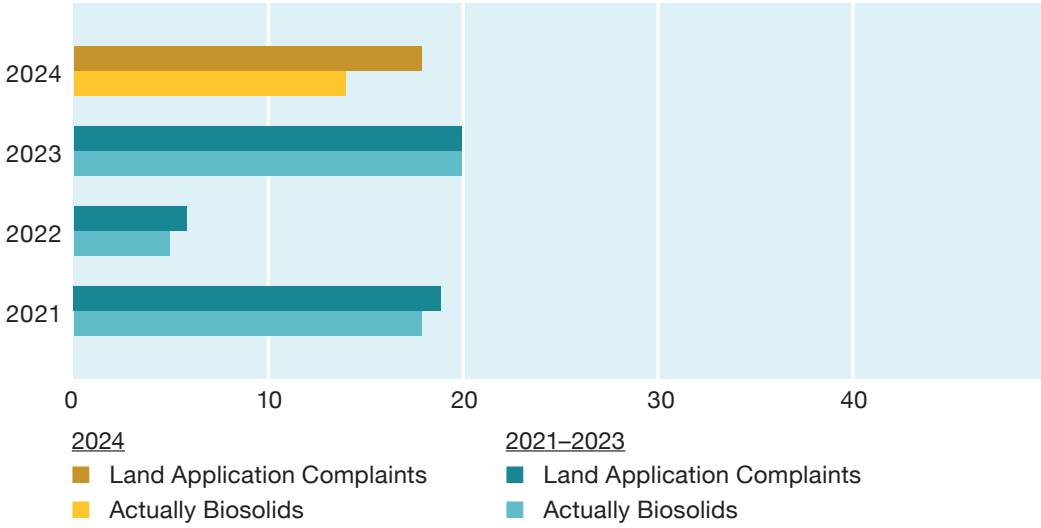
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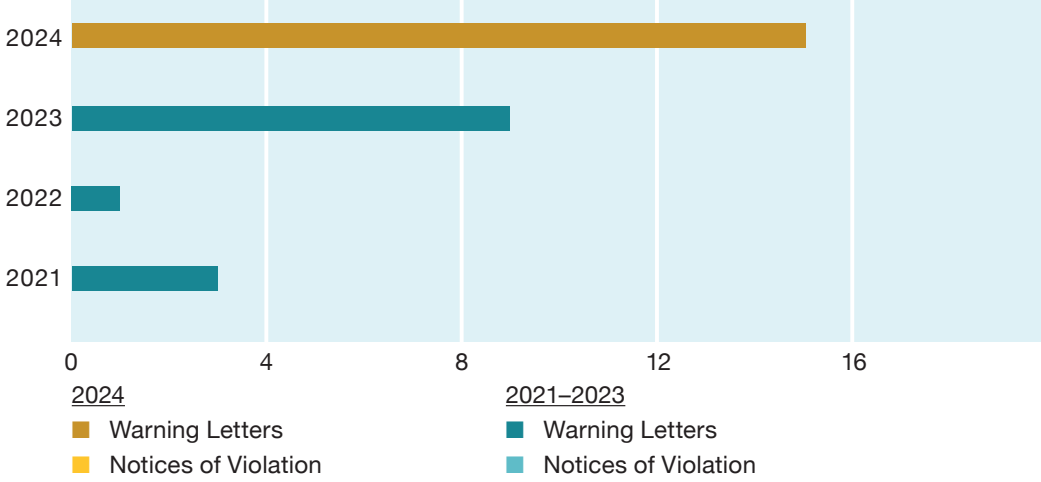


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our website.

## VIRGINIA BIOSOLIDS COMPLAINTS



## BIOSOLIDS COMPLIANCE



## ACRES RECEIVING BIOSOLIDS

