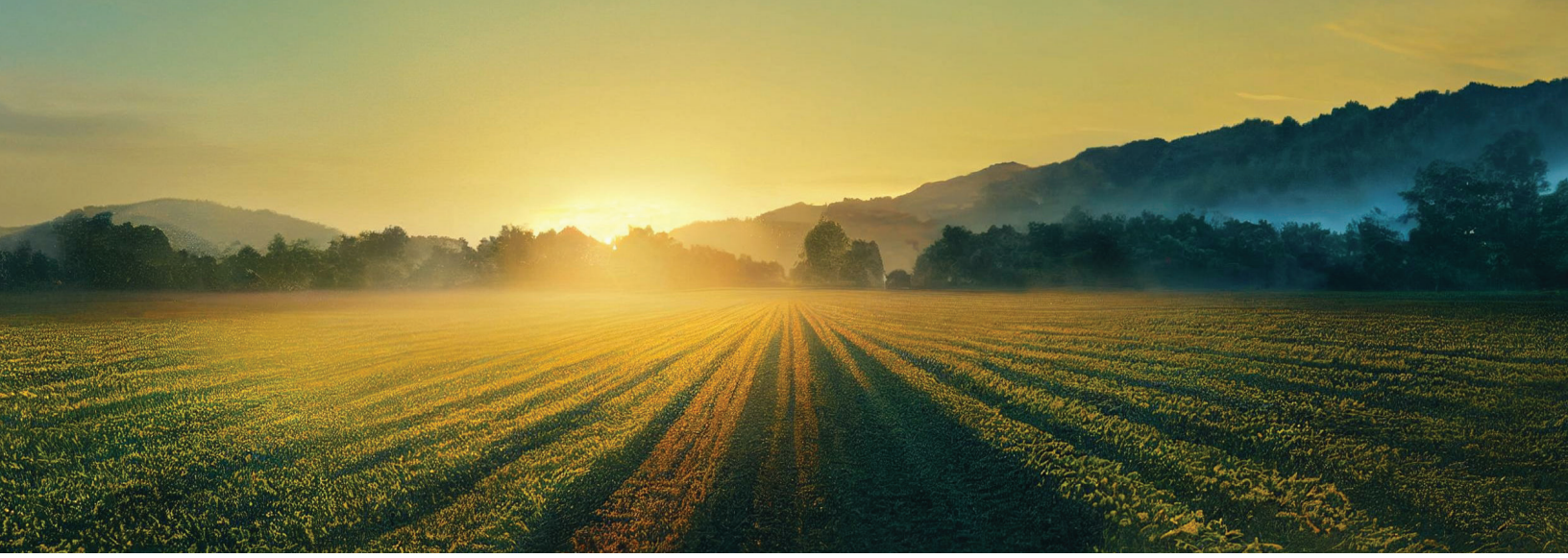


2022 Annual Report for Code of Good Practice of the Virginia Biosolids Council

The Virginia Biosolids Council (VBC) Code of Good Practice was initially drafted and then approved in 2007. This annual update provides a progress report on how the Council's membership performed under these guiding principles.

VIRGINIA BIOSOLIDS COUNCIL

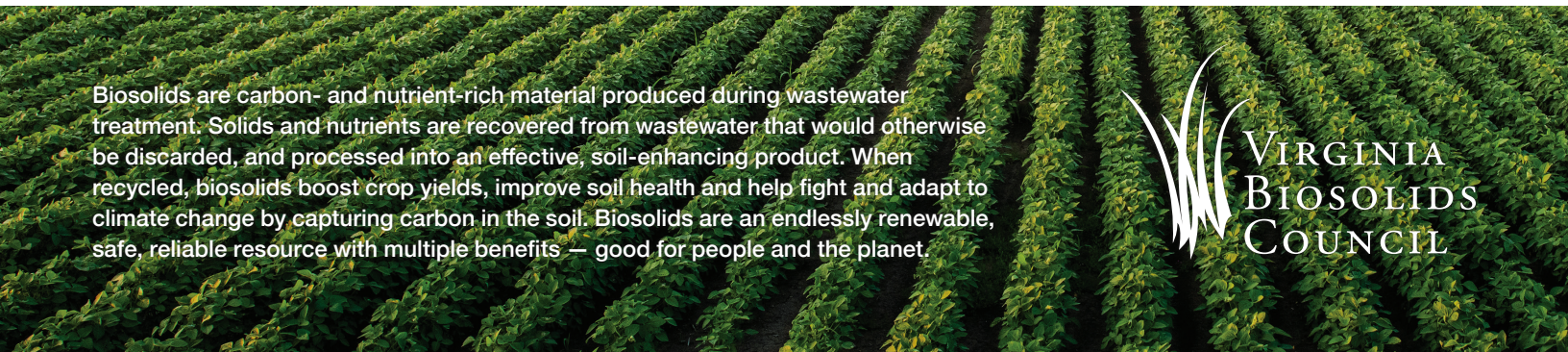
The Council's membership includes representatives of municipal utilities in Virginia and metropolitan facilities in Washington and Maryland that beneficially manage biosolids in Virginia. It also includes companies that recycle biosolids on Virginia's farms, forests, and public spaces. The VBC was established to educate the public and to provide information on the production, beneficial use, and recycling of biosolids.

Member commitment to our Code of Good Practice requires an ongoing effort to exceed compliance with Virginia's extensive regulatory requirements for biosolids. It also addresses the need for social responsibility and transparency with the public. The recent modifications to our Code include a commitment to research high-priority trace organics and to advocate for the development of sound policy and regulations. As an organization, we maintain a commitment at our municipal facilities and at application sites to minimize social impacts and to share technologies and practices.

PERFORMANCE SUMMARY

According to the Pew Research Center, as America moves out of COVID-19 effects, our society is adjusting to a new normal, even as the exact contours of that new normal may be hard to discern. This applies to the regulation of biosolids in Virginia, which is a very public and transparent process. As we provided in this report last year, the production of biosolids following extensive treatment never stops. Biosolids are a true and endless renewable resource.

We are proud to reflect that during the pandemic our membership were leaders in COVID-19 monitoring. We are able to monitor a variety of additional public health concerns, including influenza. Our collective role in public health is never lost on my operation — the County of Chesterfield — nor our VBC members.



Per- and Polyfluorinated Substances (PFAS)

Municipal wastewater utilities are usually a driving force behind the use of innovative technology and policy development. We have witnessed this as it relates to biosolids and PFAS confusion at times, and sometimes fear, surrounding emerging contaminants known as per- and polyfluoroalkyl substances, or PFAS.

PFAS are in countless commercial, consumer, and industrial products and are acknowledged by the U.S. Environmental Protection Agency (EPA) to be widely present in the environment. Due to their prevalence and evolving concerns, EPA committed to a focused and integrated approach on researching and remediating PFAS.

VBC has engaged in a number of projects to better understand the fate and transport of PFAS. In 2022, we decided to support a national PFAS research project led by Dr. Ian Pepper of the University of Arizona. His collaborative national study focuses on the fate and transport of PFAS following long-term land application of biosolids. The VBC and several of its individual members are providing financial support to Dr. Pepper's study. The VBC is also working with Dr. Pepper on a research site in Virginia that will be included in his work.

The Hampton Roads Sanitation District (HRSD), a long-time VBC member, has four research projects funded by U.S. EPA actively underway on its Progress Farm. For more than 40 years, Progress Farm has served as a critical asset to understanding biosolids management. For more information about HRSD's progress farm, click here.

When considering PFAS in biosolids, it is important to remember PFAS presence in biosolids is the inevitable byproduct of its widespread use in society. More than 650 PFAS chemicals are used in commerce today—like non-stick cookware, stain and water-resistant clothing and other fabrics, cosmetics, firefighting foams, electronics, and automotive manufacturing.

Our organization observed the Code of Good Practice in the following ways in 2022:

- Engaged in a continuing research project with Virginia Tech to better understand how carbon is captured in biosolids
- Engaged with Virginia Tech's Agricultural Research and Extension Center for biosolids research scheduled in 2023
- Advanced the organization's outreach through universally accessible social media platforms
- Engaged with U.S. Environmental Protection Agency (EPA) regularly regarding research activities on trace organics
- Provided information and education on biosolids at the State Fair of Virginia, Virginia Small Grains Field Day and Ag Expo

Information on biosolids inspections and complaints collected by the 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 2022, biosolids were applied to 41,601 acres. This represents less than 1% of all agriculture and forestry land in Virginia.[1]
- In 2022, DEQ conducted 238 inspections on fields where biosolids were recycled, a 40% increase in inspections from the previous year. The total inspections conducted in 2022 is similar to the number of inspections DEQ conducted pre-COVID.
- In 2022, VBC members conducted more than 3,107 activities in the field and operated 315 days on more than 1,667 separate fields.
- Council members received only one warning letter in 2022, and there were NO Notice of Violations (NOV) issued by DEQ last year.
- DEQ received six total complaints in 2022 and noted that only five were registered as biosolids-related complaints from the public, down from 19 the previous year, and down from 84 a decade ago.

[1] Virginia Agriculture Facts and Figures

Virginia Biosolids Council

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Virginia DEQ's biosolids regulations include notification of the intent to recycle biosolids to property owners adjacent to or nearby an application site. Our members work with DEQ to address questions or concerns that originate either during a public comment period or at an informational meeting. Signs are posted on fields as part of the permitting process containing contact information for residents to communicate directly with the applicant.

In 2022, there were seven public meetings. DEQ notified 1,023 adjacent property owners by mail regarding permit informational meetings or pending permit actions. An average of 8 citizens attended each public meeting. The most attended meeting involved 23 citizens. DEQ issued 19 permit modifications for permit reissuances in 2022.

Since 2017, DEQ has distributed more than 5,000 notices for public meetings and adjacent landowner notifications. The total number of responses resulting from these notifications is less than 6% of the total number of notifications delivered.

COMMITMENT

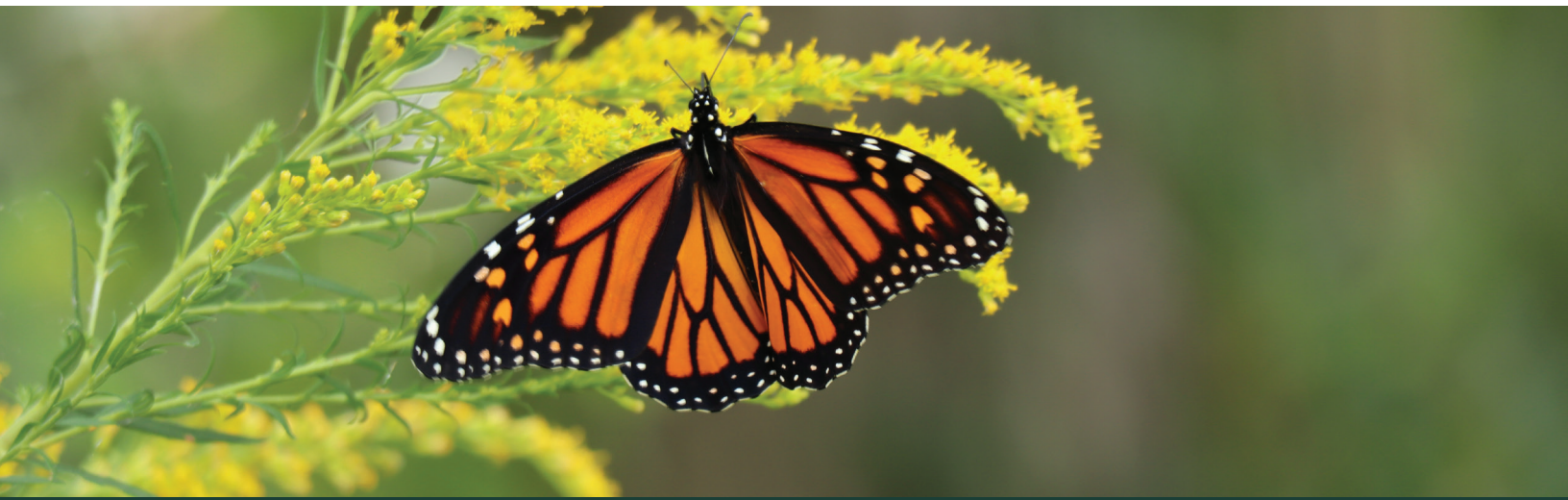
Our collective response to actively engage in research on today's most pressing challenge speaks to the VBC's commitment to protect public health and safety. Good policy is based on good science. The Council remains steadfast in its commitment to serving the public and to supporting the essential guidelines contained in the Code across Virginia.

SUMMARY

Biosolids recycling is essential to the recovery of valuable nutrients from our wastewater. Its use is highly regulated. In 2022, we spent more time than usual engaging with U.S. EPA. I am reminded that decades of study at the federal and state levels — including Virginia — have found land application to be safe when done in accordance with established regulations. Currently, the Environmental Protection Agency (EPA), the Virginia Department of Environmental Quality (DEQ), the U.S. Department of Agriculture (USDA), and the Food and Drug Administration (FDA) all support biosolids land application.

The current work by our members — both at our municipal facilities and conducted in the landscape of Virginia — is just outstanding. We have never experienced fewer public complaints, and our product and performance are as good as they have ever been. Additionally, our engagement on PFAS is timely and important so we, and the nation, can be better informed from science and research results.

As we look ahead, our organization's membership is committed to protecting the goodwill we've collectively worked so hard to develop.



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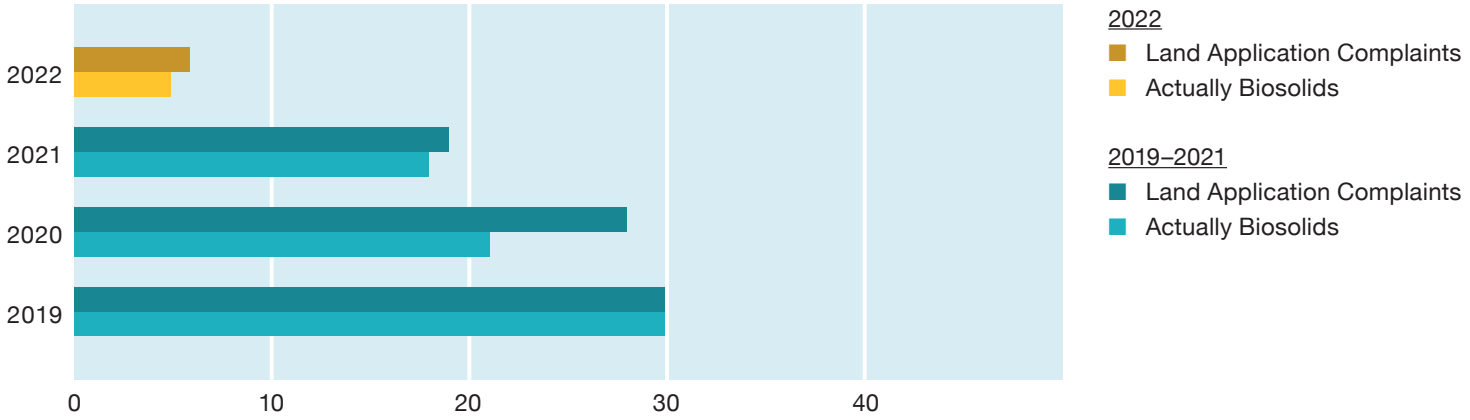
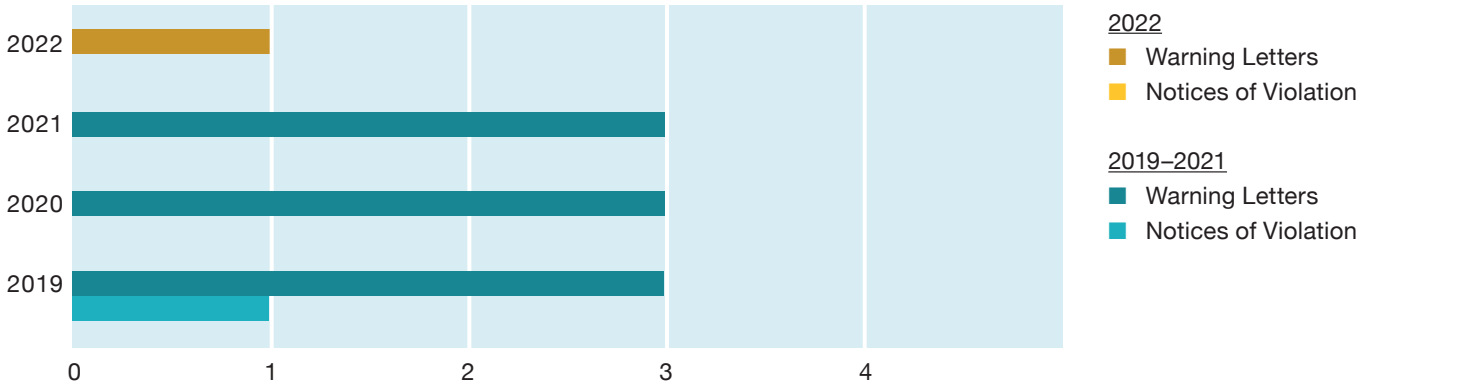
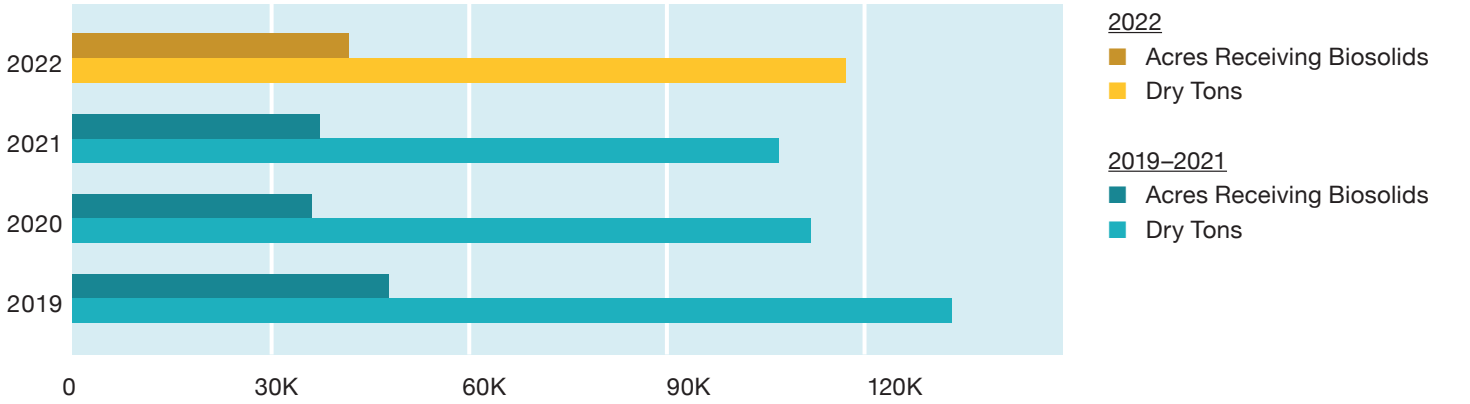
VIRGINIA BIOSOLIDS COMPLAINTS



BIOSOLIDS COMPLIANCE



ACRES RECEIVING BIOSOLIDS



Questions concerning this report can be addressed to info@virginiabiosolids.com.

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