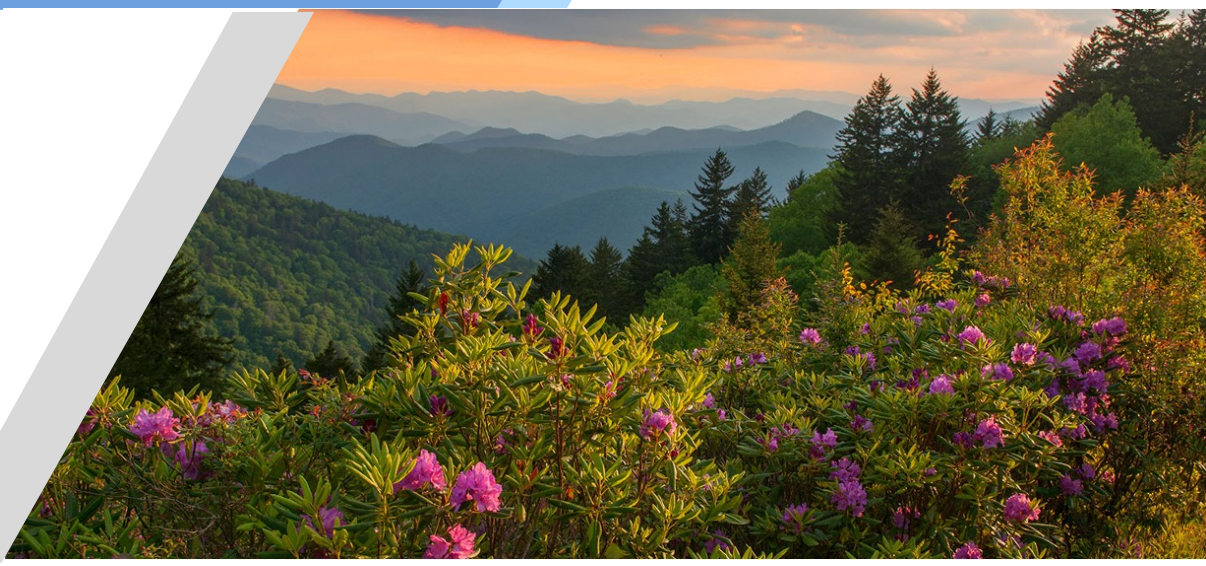
NC DEPARTMENT OF
HEALTH AND
HUMAN SERVICES
Division of Public Health

Environmental Health Section

2022-23 ANNUAL REPORT



OVERVIEW

Mission Statement

The mission of the Environmental Health Section is to protect people by promoting a safe and healthy environment in partnership with private businesses and public agencies through consistent application of education, best practices, and compliance monitoring.

The Environmental Health Section is comprised of the Food Protection and Facilities Branch, Children's Environmental Health Branch, Onsite Water Protection Branch, and the Centralized Intern Training and Authorization Program.

Executive Summary

The 2022-23 state fiscal year metrics revealed that numbers in decline during the pandemic continue to increase toward pre-pandemic levels. The number of asbestos permits, food establishments, food establishment inspections, and children screened for their blood lead level continued to increase over the previous five fiscal years. There were also increases in the number of students trained in Centralized Intern Training. Over the past fiscal year, authorizations increased in Food, Lodging, and Institutions, Onsite Wastewater, and Public Swimming Pools, while slightly declining in other authorization areas. There was a significant decrease in the number of monthly activity reports submitted to the Onsite Water Protection Branch and a decrease in the percent of onsite wastewater permits issued by Local Health Departments. The Environmental Health Section will continue to assess this data and build on successes from the last fiscal year and use data to develop strategies to overcome potential challenges in the coming year.

FOOD PROTECTION AND FACILITES BRANCH

Food Establishment Inspections

In North Carolina, there were 47,303 food establishments in the 2022-23 fiscal year. The number of food estblishments continues the pattern of steady growth, with a 2.5% increase over the previous fiscal year. During the 2022-23 fiscal year, the number of inspections per establishment increased, meaning that establishments were on average inspected more frequently than the previous year. The number of inspections per facility was 1.92 in the 2022-23 fiscal year and 1.72 in the 2021-22 fiscal year. This increase brings the inspections per facility back to pre-pandemic levels. There has also been an increase in reinspections in the 2022-23 fiscal year, and reinspections are trending toward pre-pandemic values as well. Since this number corresponds with inspection compliance, this is an important trend to monitor, with a goal of increasing inspections per establishment until full compliance is met.

	FY18	FY19	FY20	FY21	FY22	FY23
Establishments	43,688	44,264	44,689	45,038	46,124	47,303
Inspections	88,602	87,759	67,675	71,126	79,763	90,763
Reinspections	718	732	602	429	537	667
Intent to Suspend Permit	912	1069	992	827	715	1275
Permit Suspensions	543	746	588	556	577	1008
Plans Reviewed	555	774	673	1040	844	811

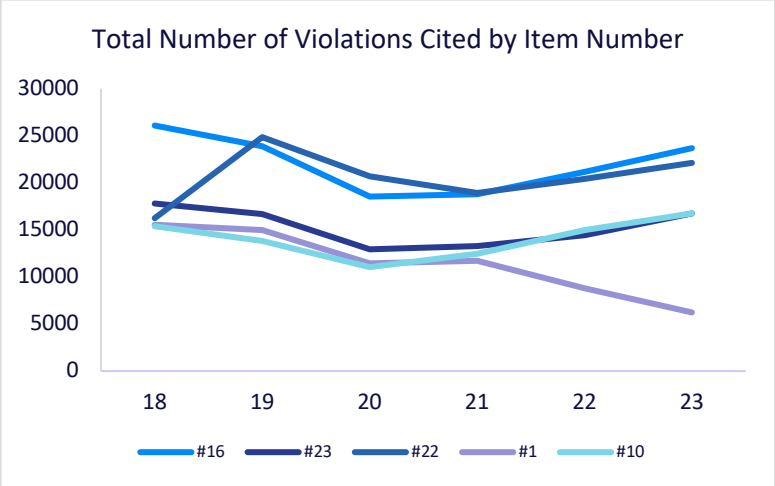
The number of “intent to suspend permits” and “permit suspensions” both rose significantly in the 2022-23 fiscal year. There were 1,275 “intent to suspend permits” issued for food estabishments this fiscal year, which is the highest of any in the last six fiscal years and is an increase of 78% from the previous fiscal year. The number of permit suspensions nearly doubled from the 2021-22 fiscal year, increasing from 577 to 1,008. These trends should be monitored closely as they could indicate issues with long-term compliance in establishments, or conditions in establishments where imminent health hazards exist.

In the 2022-23 fiscal year, there were 8,719 swimming pools, 1,152 wading pools, and 910 spas in North Carolina. There were 935 permit suspensions issued for swimming pools, which represents 10.7% of establishments.

	Swimming Pool	Wading Pool	Spa
Total Establishments	8719	1152	910
Inspections	7812	694	645
Reinspections	353	29	39
Intent to Suspend Permit	667	9	76
Permit Suspensions	935	30	108

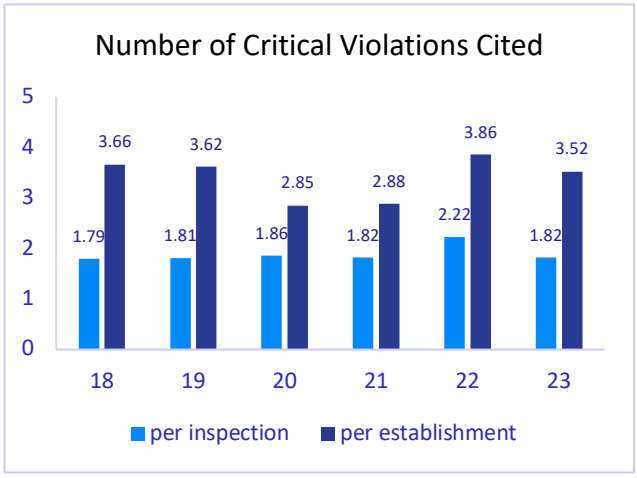
Inspection Compliance

The Environmental Health Section monitors trends in the top five cited critical violations, to help determine if the primary risk factors for foodborne illness are being controlled. Overall, the top five cited violations have been trending lower over the last five years. There was a sharp decline in the 2022-2023 fiscal year in the "presence of a person in charge" (PIC) violation.



There was a nearly 30% decline in violations, from 8,781 in the 2021-2022 fiscal year to 6,288 in the 2022-2023 fiscal year. This could be attributed to facilities becoming more familiar with the requirements of the PIC over the last several years. The Section is focusing on ensuring proper marking of these violations to ensure there are no quality assurance issues leading to this sharp decrease. The other top violations have seen a steady increase since adopting the 2017 Food Code, with around a 10% increase in these violations. The EH Section will continue to develop educational materials and work with industry and Local Health Departments to reduce these violations.

One of the Environmental Health Section goals is reducing the number of critical violations per inspection. There was a reduction observed in the 2022-23 fiscal year, with 1.82 critical violations per inspection compared to 2.22 in the previous year. Since the 2021-22 fiscal year revealed a 20% increase from the previous year, it is seen as a success that this number returned to levels in line with those in FY19, FY20, and FY21. Increased education for operators to help with compliance may have contributed to this drop, as well as operators being more comfortable with the 2017 Food Code changes. The EH Section will continue to work with LHDs on educational material, quality assurance, and any other needs of local health departments to continue to reduce the number of critical violations that occur in food establishments.



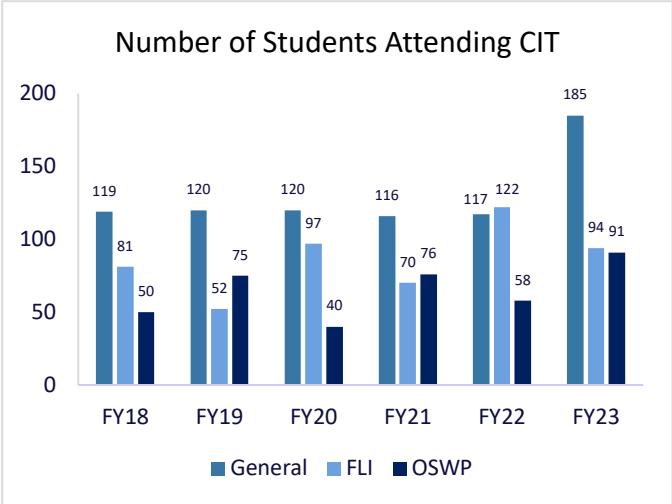
CIT AND AUTHORIZATIONS

Intern Training

The Environmental Health Section provides initial training for interns across North Carolina, known as Centralized Intern Training (CIT) and monitors the authorizations for Environmental Health Specialists in North Carolina. The number of authorizations performed in fiscal year 2022-23 remained relatively consistent with previous years for Child Care and Schools, Childhood Lead Poisoning Prevention, and Onsite Wastewater. There was a 58% increase in the number of authorizations in Public Swimming Pools, as well as a 36% decrease in number of authorizations in Private Wells. These numbers can fluctuate from year to year but may show trends in which facility types are seeing the most growth within the counties or which programs are seeing growth within local health departments. The average length of authorization was 29 days in the 2022-23 fiscal year, which was consistent with the last four years.

	FY20	FY21	FY22	FY23
Child Care and Schools	72	45	52	43
Childhood Lead Prevention	40	18	37	32
Food Lodging & Institutions (FLI)	117	78	62	80
Onsite Wastewater (OSW)	80	61	62	77
Public Swimming Pools	118	60	50	79
Tattoo	78	37	93	70
Private Well	55	44	111	71

All Environmental Health interns must attend CIT to begin the authorization process. In the 2022-23 fiscal year, there was a 58% increase in the number of students that attended the General Module of CIT. The previous five years had seen steady numbers of students in the General Module. This large increase could be due to increased turnover in Environmental Health Specialists at the local health departments. There also has been an increase in students attending single day sessions during the General Module which could account for the additional students. There was also a 57% increase in the number of students in the Onsite Water Protection (OSWP) Module, with 91 students attending in the 2022-2023 fiscal year compared to 58 in the previous year. The OSWP Sections have seen high turnover and faced backlogs in permitting, and additional interns can be one solution to this issue. The post-test scores for the 2022-23 fiscal year were an average of 90.7 for the FLI module, which continues to show an increase each fiscal year.



ONSITE WATER PROTECTION BRANCH

*Onsite Water Protection Branch reports data based on calendar year instead of fiscal year. The following report has been prepared with most recent available data and relies on manually reported numbers from local health departments.

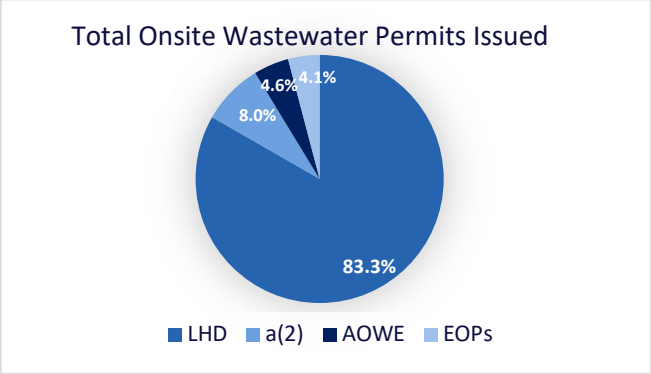
Onsite Wastewater Protection

The data available to the Onsite Water Protection Branch (OSWP) is taken from the monthly activity reports submitted by Local Health Departments on all onsite wastewater systems. The OSWP continues to see a decrease in the compliance of submissions of these monthly activity reports despite the reporting requirements of the Consolidated Agreement. For the 2022 calendar year, only 50% of the required monthly activity reports have been received. There are only 30 LHDs that submitted all 12 reports for the 2022 calendar year. There were 39 LHDs that submitted at least 80% of the reports, and 47 LHDs that submitted 50% of reports. The total number of monthly activity reports reported for the 2022 calendar year was 601, a 33% decrease from the 907 reported in the 2021 calendar year. Without adequately reported data, the OSWP is unable to use the information to accurately assess trends and monitor permitting numbers statewide.

	CY2018	CY2019	CY2020	CY2021	CY2022
Total IP Permits Issued (excluding a2's)	19,937	19,895	25,417	24,084	13,192
Total CA Permits Issued (excluding a2's)	25,671	25,262	30,918	29,343	15,598
Total EOPs - NOIs	529	551	740	1275	650
Total EOPs - ATOs					517
Total COVID-19 Permits	N/A	N/A	521	971	unsure
Total AOWE Permits - NOIs	N/A	N/A	N/A	N/A	721
Total AOWE Permits - ATOs					180
Total GS130-335(a2) IPs	N/A	3 (S40)^	49 (S40)^	1801 (S40)	1266
Total GS130-335(a2) CAs		3 (S41)^	29 (S41)^	1639 (S41)	1152

^Most monthly activity reports in CY 2019 and 2020 used an old template and did not track these permits

When looking at the number of Onsite Wastewater Permits issued in North Carolina, Local Health Department permits accounted for 83.3% of the permits. This represents an approximately 16-20% decrease from the 2021 calendar year. The number of Engineered Option Permits (EOPs) is roughly 4% of the number of permits issued. This option, along with all private/hybrid permitting options, has grown in popularity over the past five years. In the 2022 calendar year, private/hybrid permitting increased by 7% over the 2021 calendar year. Private/hybrid permits accounted for approximately 17% of all permitting in North Carolina in the 2022 calendar year. It is important to monitor the trends associated with local health department permits and private/hybrid permits to ensure permits are being issued efficiently and to make sure Local Health Departments can meet the permitting needs of the public.

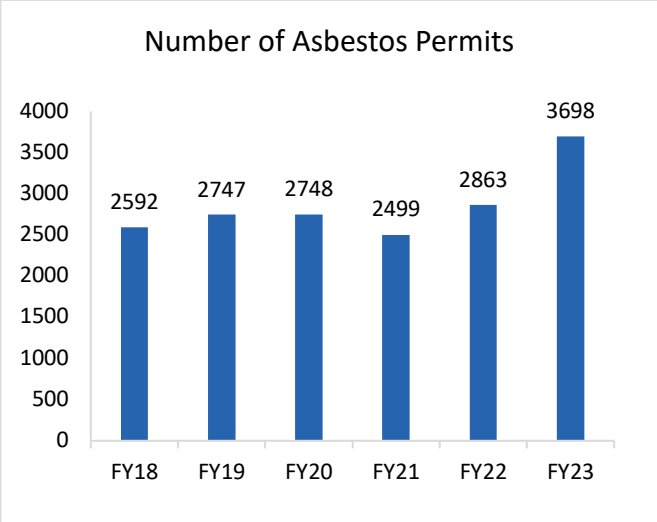


Lead and Asbestos Hazard Management Programs

The Health Hazards Control Unit (HHCU) is responsible for the administration and enforcement of asbestos and lead-based paint renovation projects throughout North Carolina. There are still thousands of public and private homes and commercial buildings in North Carolina that contain asbestos and lead-based paint even though these products are no longer used in new construction. The HHCU permitted the removal of over 3.5 million square feet of asbestos in the 2022-23 fiscal year by accredited asbestos professionals.

	FY19	FY20	FY21	FY22	FY23
Lead Certifications	228	185	159	202	270
Lead Abatement Firms	80	74	73	76	71
Renovators	443	592	468	459	513
Renovation Firms	1,149	1,108	1,058	992	947

Lead-based paint has been banned since 1978; however, many hazards still exist from older houses and child-occupied facilities that contain lead-based paint. Houses and child occupied facilities, built before 1978, are required to have work performed by a certified firm using certified individuals when performing lead abatement, renovation, or repair activities. Over the last five years, the number of lead abatement firms and lead renovation firms has remained consistent, which is important because individuals in North Carolina need to be able to consistently access trained and certified professionals to conduct lead abatement activities or renovation activities that disturb lead-based paint.

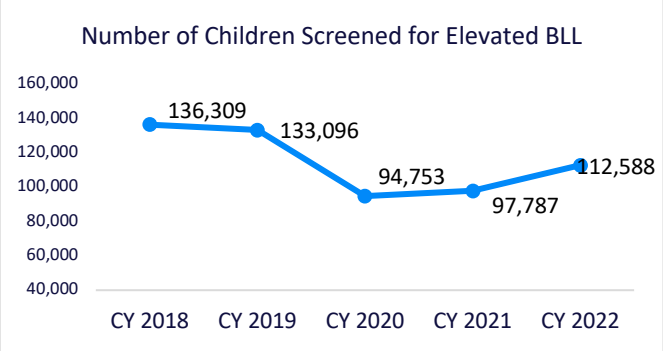


In the 2022-23 fiscal year, there were 3,698 asbestos permits issued for abatement, repairs or renovations to structures containing asbestos. This was an increase over the previous fiscal year's 2,863 permits. This increase in permitting could indicate an increase in the construction business, as more renovations could be taking place. Even though more permits were issued this fiscal year, there was a decrease in the number of asbestos inspections that were conducted. In the 2021-22 fiscal year, there were 805 asbestos inspections conducted, while 625 inspections were conducted in the 2022-23 fiscal year. This decline is a direct result of fewer staff available to conduct inspections. Monitoring this trend for the next year will be important to ensure that inspections can keep up with any continued growth in asbestos permits requested.

*Children's Environmental Health reports data based on calendar year instead of fiscal year. The following report has been prepared with most recent available data.

Childhood Blood Lead Surveillance

Children in North Carolina are screened for potential elevated blood lead levels (BLL). Confirmation of elevated BLL is based on a child receiving two consecutive blood lead test results ≥ 5 µg/dL within a 12-month period. Confirmed lead levels are based on the confirmation date and are classified according to the highest level confirmed during the calendar year.



The overall number of children screened for elevated BLL decreased during the 2020 and 2021 calendar years. The reason for this decrease could be attributed to the COVID-19 pandemic and the reduced number of routine medical visits during this time. In addition, there was a recall of point-of-care (POC) (i.e., LeadCare II) blood lead analyzer test kits used by health care providers to analyze blood lead specimens in-house. During 2020, 48% of all blood lead test results reported were from specimens analyzed using the POC blood lead analyzer. The recall included a majority of test kits distributed since October 27, 2020, and distribution did not resume until the week of February 14 in 2022.

With easing of COVID-19 restrictions and resumed use of POC blood lead analyzers, the number of children screened in 2022 increased 18% from 2020. However, required reporting of test results by providers using the POC blood lead analyzer has been an issue. Despite lower screening rates, the percentage of children with an elevated blood lead level has remained consistent over the past three years.

	CY2018	CY2019	CY2020	CY2021	CY2022
Number of Children Tested	136,309	133,096	94,753	97,787	112,588
Number with BLL ≥ 5ug/dL	1,649	1,234	1,049	1,060	1,242
Percent BLL ≥ 5ug/dL	1.2%	0.93%	1.1%	1.1%	1.10%

In October 2021, CDC lowered the blood lead reference value for children from 5 µg/dL to 3.5 µg/dL. As a result, the NC Childhood Lead Poisoning Prevention Program (NC CLPPP) revised its follow-up schedule for blood lead levels of children under the age of six to recommend a diagnostic test for all children who have an initial blood lead test result ≥ 3.5 µg/dL. This change more than doubled the number of children in need of diagnostic testing during 2022 (2,674 versus 1,242) compared to previous guidelines. Environmental follow-up services provided by the CLPPP were not affected by the revised recommendations. This would require a legislative change.

Lead and Asbestos Mitigation in Schools and Childcares

The NC Division of Public Health is expanding the protection of young children with testing and inspection for lead and asbestos hazards in the more than 8,000 NC public schools and licensed child care facilities. Following a legislative appropriation of $150 million from federal infrastructure funding (American Rescue Plan Act (ARPA)), RTI International has been contracted to coordinate the water testing and mitigation, as well as lead-based paint and asbestos inspections. Identification of hazards will require restricting access until the hazard is mitigated.

The ARPA reimbursement program addresses lead-based paint and asbestos hazard mitigation and renovation and capital improvements where lead-based paint and asbestos is present. The NC Health Hazards Control Unit (HHCU) is the agency responsible for reimbursing public schools and licensed child care facilities for qualified expenses. NC public schools can qualify for two-thirds reimbursement and licensed child care facilities can qualify for full reimbursement. Information regarding the ARPA Reimbursement program can be found at https://www.ncdhhs.gov/divisions/public-health/asbestos-and-lead-based-paint-reimbursement-program-arpa. NC Public schools and licensed child care facilities seeking reimbursement must submit required documents while funding is still available and before December 31, 2026. Questions regarding reimbursement can be submitted to ARPA-Reimbursement@dhhs.nc.gov.

Conclusion

The Environmental Health Section metrics impacted by COVID appear to be trending towards pre-2020 levels. Although not unexpected, it is encouraging to see the data heading in this direction. For example, the number of children screened for blood lead levels continue to increase since the drop in 2020 and the number of restaurant inspections continue to increase. Other successes to celebrate include the decreased number of critical violations per inspection in food establishments as well as a significant decrease in "Person in Charge" (PIC) violations. The Environmental Health Section also experienced a significant increase in the number of students attending CIT's General Module, which is a good indicator that our field is experiencing growth. And for the first time, we have funding ($150M) that provides a real opportunity to significantly reduce lead and asbestos hazards in public schools and child care centers in North Carolina.

With success comes some challenges. The Onsite Water Protection Branch is experiencing a sharp decline in obtaining monthly activity report data reported from Local Health Departments. Among other things, this leads to an inability to understand onsite wastewater trends in North Carolina, especially at a time when such programs are under the microscope. The Branch will be evaluating this issue and exploring processes and tools that will help with data collection. Please contact a member of the Branch if you have a workable recommendation. The Food Protection and Facilities Branch will also monitor and explore reasons for the steady increase being observed in the most common critical violations in food establishments.

Overall, there are many more positives than negatives regarding the great work being done across North Carolina by state and local environmental health specialists. The Section will continue to set goals and work on projects that are guided by the data and trends generated in this report for the upcoming fiscal year. As always, please let us know what we can do to improve this report.

Environmental Health Section Leadership

Larry Michael, State Environmental Health Director

Shane Smith, Food Protection and Facilities Branch Head

Ed Norman, Children's Environmental Health Branch Head

Jon Fowlkes, Onsite Water Protection Branch Head