

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2025

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HOUSE BILL 1047

Short Title: North Carolina Microplastics Study Act. (Public)

Sponsors: Representatives Price, Butler, K. Brown, and Harrison (Primary Sponsors).
For a complete list of sponsors, refer to the North Carolina General Assembly web site.

Referred to: Rules, Calendar, and Operations of the House

April 28, 2026

A BILL TO BE ENTITLED
AN ACT TO DIRECT THE NORTH CAROLINA COLLABORATORY TO STUDY THE
NEGATIVE IMPACTS OF THE PRESENCE OF MICROPLASTICS IN THE WATERS
OF THE STATE AND TO RECOMMEND STRATEGIES FOR ADDRESSING THE
NEGATIVE IMPACTS OF MICROPLASTICS.

Whereas, microplastics can be ingested by aquatic organisms, transferring toxic chemicals into their tissues; and

Whereas, microplastics accumulate in food chains, impacting a wide range of species, disrupting reproductive systems and ecological balance; and

Whereas, microplastics can carry pathogens and pollutants, potentially spreading diseases and contaminants throughout waterways; and

Whereas, contaminated drinking water and seafood containing microplastics pose potential health risks to humans; and

Whereas, microplastics break down into nanoplastics, which are even more difficult to detect and remove, making cleanup efforts challenging and contributing to long-term waterway pollution; and

Whereas, the presence of microplastics in waterways degrades water quality and biodiversity, threatening the overall health of aquatic ecosystems; Now, therefore, The General Assembly of North Carolina enacts:

SECTION 1.(a) Title. – This act shall be known as the North Carolina Microplastics Study Act.

SECTION 1.(b) Definitions. – The following definitions apply in this act:

- (1) Collaboratory. – The North Carolina Collaboratory at the University of North Carolina at Chapel Hill.
- (2) Inland waters. – Permanent water bodies inland from the coastal zone and areas whose properties and use are dominated by the permanent, seasonal, or intermittent occurrence of flooded conditions.
- (3) Macroplastics. – Plastic particles greater than 5 millimeters in size.
- (4) Microplastics. – Plastic particles between 1 nanometer and 5 millimeters in size.
- (5) Nanoplastics. – Plastic particles less than 1 nanometer in size.
- (6) Plastic particles. – Plastics that include macroplastics, primary microplastics, secondary microplastics, nanoplastics, and raw plastic materials.
- (7) Primary microplastics. – Plastics that are intentionally manufactured at small sizes. Examples include cosmetic beads, glitter, seed coatings, and pellets or



nurdles (small, round, lens- or disc-shaped plastic pieces between 2 and 5 millimeters).

(8) Raw plastic materials. – Plastics transported as pellets or nurdles before being melted and molded into other plastic-based products.

(9) Secondary microplastics. – Raw plastic materials or macroplastics that have been broken down into microplastics by various environmental pathways.

SECTION 1.(c) Purpose. – The Collaboratory shall investigate the potential impact of plastic particles on waters of the State and develop strategies to address the impacts of plastic particles. To help guide the Collaboratory's work, the General Assembly finds that:

(1) Although substantial scientific research on plastic particles exists, further research will complement and support continuing efforts to reduce plastic particle pollution.

(2) In addition to the development of a long-term statewide strategy, early actions to prevent and reduce known impacts of plastic particles to the marine environment should be pursued.

SECTION 1.(d) Staffing and Support. – The Department of Environmental Quality shall provide staff support to the Collaboratory. Additional staff may be hired or contracted by the Collaboratory through funds raised by or provided to it. The duties and compensation of any additional staff shall be determined by and fixed by the Collaboratory, within available resources.

SECTION 1.(e) Collaboration. – The Collaboratory shall complete its functions and duties in collaboration with the State Division of Water Resources and other interested governmental entities. The Department of Environmental Quality shall cooperate with the Collaboratory and, upon request, shall assist the Collaboratory in fulfilling its responsibilities.

SECTION 1.(f) Duties. – The Collaboratory is charged with the following duties consistent with the protection and conservation of rivers, lakes, estuaries, tributaries, inland ecosystems, coastal waters, beaches, and ocean ecosystems:

(1) Identify plastic particles within the State's waterways.

(2) Research the harmful impact plastic particles have on the ecosystem.

(3) Collaborate with interested stakeholders and research institutions.

(4) Develop strategies to address the dangers of plastic particles.

(5) Implement strategies to prevent the future introduction of plastic particles into the waterways and to reverse existing harm.

SECTION 1.(g) Tasks. – In carrying out its duties as provided in subsection (f) of this section, the Collaboratory shall do all of the following:

(1) Conduct research and planning related to the control of plastic particles within the waterways of the State.

(2) Enter into contracts or agreements, including cost-sharing agreements, with public or private agencies for research and development of methods of control of plastic particles.

(3) Develop a comprehensive prioritized research plan that includes research that will support the development of risk assessments for plastic particles in the marine environment habitat types of North Carolina.

(4) Develop standardized methods for sampling, detecting, and characterizing plastic particles.

(5) Determine the ambient concentrations of plastic particles in the marine environment and provide an assessment of the associated environmental impacts, by plastic particle age, size, shape, type, and location.

(6) Investigate the sources and relative importance of pathways associated with the environmental impacts of plastic particles determined to be significant.

- (7) Develop a risk assessment framework for plastic particles based on the best available information on exposure of plastic particles to organisms, including humans, through pathways that impact the marine environment.
- (8) Research various approaches for reducing the introduction of plastic particles into the marine environment from significant pathways of exposure, with an emphasis on the sizes, shapes, and types of plastic particles that are associated with significant environmental impacts.
- (9) Utilize the risk assessment framework developed pursuant to subdivision (7) of this subsection to evaluate options, including source reduction and product stewardship techniques, barriers, costs, and benefits.
- (10) Offer recommendations for policy changes, including statutory changes, or additional research that may be needed.

SECTION 1.(h) Report. – The Collaboratory shall submit a comprehensive report with findings, a detailed risk assessment, and recommended actions to the Joint Legislative Oversight Committee on Agriculture and Natural and Economic Resources and the Environmental Review Commission by July 1, 2027.

SECTION 2. Funding. – There is appropriated from the General Fund to the Collaboratory the sum of one hundred fifty thousand dollars (\$150,000) in nonrecurring funds for the 2026-2027 fiscal year to implement the study of plastic particles on the waters of the State, including any associated research initiatives, public hearings, and stakeholder meetings. The Collaboratory may explore potential partnerships or federal grant opportunities to supplement its research and study efforts.

SECTION 3. Effective Date. – This act becomes effective July 1, 2026.