

SENATE, No. 3745

STATE OF NEW JERSEY

222nd LEGISLATURE

INTRODUCED MARCH 5, 2026

Sponsored by:

Senator ANDREW ZWICKER

District 16 (Hunterdon, Mercer, Middlesex and Somerset)

Co-Sponsored by:

Senator Diegnan

SYNOPSIS

Establishes two-year pilot program to address antibiotic-resistant bacteria and genes in State water systems; appropriates \$3 million.

CURRENT VERSION OF TEXT

As introduced.



(Sponsorship Updated As Of: 3/10/2026)

1 AN ACT concerning antibiotic-resistant bacteria and genes in State
2 water systems, supplementing Title 58 of the Revised Statutes,
3 and making an appropriation.
4

5 **BE IT ENACTED** *by the Senate and General Assembly of the State*
6 *of New Jersey:*
7

8 1. As used in sections 1 through 6 of this act:

9 “Antibiotic-resistant bacteria” or “ARB” means single-celled
10 organisms that develop the ability to defeat the drugs designed to
11 eradicate them.

12 “Antibiotic-resistant genes” or “ARG” means genetic material
13 that develops the ability to defeat the drugs designed to eradicate it.

14 “Biosensor systems” means a system that detects and transforms
15 responses, changes, or interactions in biological specimen for use as
16 measurable data.

17 “Department” means the Department of Environmental
18 Protection.

19 “Metagenomic sampling” means a culture-independent sampling
20 method that allows the identification and characterization of the
21 microbial composition and interactions of a substance.

22 “Microfluidic devices” means systems that manipulate fluids at
23 minimal scales to detect the physical and chemical properties of
24 fluids or viscous substances.

25 “Polymerase chain reaction” or “PCR” means the technique used
26 to amplify or copy small segments of DNA.

27 “Public community water system” means the same as the term is
28 defined in section 2 of P.L.2021, c.183 (C.58:12A-41).
29

30 2. a. The Department of Environmental Protection,
31 Department of Health, and New Jersey Infrastructure Bank, shall
32 collaboratively implement a two-year pilot program to detect,
33 monitor, and eradicate antibiotic-resistant bacteria and antibiotic-
34 resistant genes at the following sites:

35 (1) wastewater treatment plants, treatment works, or public
36 community water systems treating more than 10 million gallons of
37 water per day;

38 (2) hospitals with more than 100 beds or with high patient
39 volume and turnover;

40 (3) surface waters, such as rivers, lakes, ponds, and wetlands;

41 (4) agricultural areas;

42 (5) sediments near effluent discharge points; and

43 (6) groundwater aquifers in vulnerable areas identified by
44 historical contamination data or environmental risk.

45 b. The pilot program may utilize biosensors, microfluidic
46 devices, or automated metagenomic sampling units in order to
47 detect and monitor ARBs and ARGs.

1 c. The pilot program may include water, sediment, and biofilm
2 testing, measuring in each sample both ARBs and ARGs.

3 d. The department shall establish a water system testing and
4 sampling schedule, to provide that:

5 (1) wastewater treatment plants, treatment works, public
6 community water systems, waterway sites, or other water systems
7 with no more than one detection instance of ARB or ARG within
8 the previous 90 days are tested with a monthly sampling frequency;
9 and

10 (2) wastewater treatment plants, treatment works, public
11 community water systems, waterway sites, or other water systems
12 with more than one detection of ARB or ARG within the previous
13 90 days are tested with a weekly sampling frequency. The
14 department shall continue the established sampling frequency until
15 the tested site has achieved no presence of ARB or ARG for at least
16 the previous 90 consecutive days.

17 e. The department shall require all sites tested through the pilot
18 program to report ARB and ARG testing results quarterly. The
19 department shall conduct annual water system audits and
20 inspections to ensure adherence to sampling and testing standards.

21 f. Unless otherwise authorized by the Governor and the
22 Legislature pursuant to section 6 of this act, the pilot program shall
23 end at the conclusion of two years.

24
25 3. a. Through the pilot program established pursuant to section
26 2 of this act:

27 (1) The Department of Environmental Protection shall:

28 (a) upload results from the ARG and ARB pilot program to a
29 centralized Internet site and database, to be known as "The New
30 Jersey ARB and ARG in Water Systems Database;"

31 (b) issue alerts to all residents of a municipality in the event a
32 wastewater treatment plant, treatment works, public community
33 water systems, waterway site, or other public community water
34 system receives testing results indicating the presence of ARBs or
35 ARGs;

36 (c) require all individuals conducting ARB and ARG testing to
37 complete an operator training course, to be developed and
38 administered by the department, on an annual basis; and

39 (d) verify compliance of all persons licensed to conduct ARB
40 and ARG testing with the training requirements through an annual
41 audit and renewal process;

42 (2) The Department of Health shall:

43 (a) cross-reference data with hospital and pharmaceutical facility
44 information in order to ensure comprehensive coverage following
45 standardized sampling protocols.

46 (b) develop and publish research on the association between
47 environmental ARB and ARG exposure and neurodegenerative
48 diseases.

1 b. Through the pilot program established pursuant to section 2
2 of this act, the department and the Department of Health shall
3 require all hospitals exceeding 100 beds or discharging more than
4 0.5 million gallons of water per day to install advanced water and
5 wastewater treatment technologies, including, but not limited to,
6 membrane bioreactors, UV disinfection systems, ozone systems, or
7 other department approved systems. The department may authorize
8 these hospital sites to conduct ARB and ARG testing through a
9 third party, non-State contractor, provided that the hospital site has
10 attained non-detection of ARB and ARG for at least 90 consecutive
11 days prior to testing, and provided that all other sampling and
12 testing compliance and monitoring requirements established by the
13 department are met. The department shall regulate hospital
14 systems' compliance with all ARB and ARG testing conducted
15 pursuant to this section.

16
17 4. Through the pilot program established pursuant to section 2
18 of this act, the department shall enforce phased performance
19 standards for ARB and ARG reduction at public water utilities,
20 wastewater treatment plants, and other public community water
21 systems, requiring a minimum standard of 90 percent reduction in
22 incidence of ARB and ARG across all State water systems. The
23 performance standards shall be enforced in phases over two years of
24 the pilot program, with each phase eight months in duration:

25 a. Phase one shall certify the attainment of ARB and ARG
26 performance standards at public water utilities, wastewater
27 treatment plants, and water systems servicing a population of
28 greater than 10,000;

29 b. Phase two shall certify the attainment of ARB and ARG
30 performance standards at public water utilities, wastewater
31 treatment plants, and water systems servicing a population between
32 3,300 and 10,000; and

33 c. Phase three shall certify the attainment of ARB and ARG
34 performance standards at public water utilities, wastewater
35 treatment plants, and public community water systems servicing a
36 population of fewer than 3,300.

37
38 5. The department shall establish and disseminate protocols
39 and standards specifying the approved sampling technologies,
40 testing systems, and monitoring protocols necessary to implement
41 this act.

42
43 6. The department, in consultation with the Department of
44 Health and the New Jersey Infrastructure Bank, shall annually
45 report to the Governor, and to the Legislature, pursuant to section 2
46 of P.L.1991, c.164 (C.52:14-19.1), such information as is necessary
47 to assess the success of the pilot ARG and ARB detection program.
48 The report shall also provide the opinions of the Commissioners of

1 Environmental Protection and Health as to whether the pilot
2 program should be continued and, if so, recommendations for
3 further improvement and implementation.

4
5 7. There is appropriated from the General Fund to the
6 Department of Environmental Protection the sum of \$1,000,000 to
7 implement sections 2 through 6 of this act. There is appropriated
8 from the General Fund to the Department of Health the sum of
9 \$500,000 to implement sections 2,3, and 6 of this act. There is
10 appropriated from the General Fund to the New Jersey
11 Infrastructure Bank the sum of \$1,500,000 to administer grants and
12 loans to meet the objectives of sections 2 and 6 of this act.

13
14 8. The Commissioner of Environmental Protection, in
15 consultation with the Commissioner of Health and the Executive
16 Director of the New Jersey Infrastructure Bank, shall, in accordance
17 with the "Administrative Procedure Act," P.L.1968, c.410
18 (C.52:14B-1 et seq.), adopt rules and regulations as necessary to
19 implement this act.

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21 9. This act shall take effect immediately.

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24 STATEMENT

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26 This bill would require the Department of Environmental
27 Protection (DEP), Department of Health (DOH), and New Jersey
28 Infrastructure Bank, to collaboratively implement a two-year pilot
29 program to detect, monitor, and eradicate antibiotic-resistant
30 bacteria (ARB) and antibiotic resistant genes (ARG) at (1)
31 wastewater treatment plants, public water utilities, and other water
32 treatment systems treating more than 10 million gallons of water
33 per day; (2) certain hospitals; (3) surface waters; (4) agricultural
34 areas; (5) sediments near effluent discharge points; and (6)
35 groundwater aquifers in vulnerable areas identified by historical
36 contamination data or environmental risk. The pilot program may
37 utilize biosensors, microfluidic devices, or automated metagenomic
38 sampling units in order to detect and monitor ARBs and ARGs.
39 Under the bill, the department would establish a water system
40 testing and sampling schedule, with low-risk wastewater treatment
41 plants, treatment works, water utilities, waterway sites, or other
42 water systems tested with a monthly sampling frequency and high-
43 risk wastewater treatment plants, treatment works, public water
44 utilities, waterway sites, or other water systems tested with a
45 weekly sampling frequency. Under the bill, the DEP would require
46 that all tested sites report ARB and ARG on a quarterly basis. All
47 individuals conducting ARB and ARG testing would be required to
48 complete an operator training course, to be developed and

1 administered by the DEP, on an annual basis. Through an annual
2 audit and renewal process, the DEP would verify fidelity,
3 adherence, and compliance of all persons licensed to administer
4 ARB and ARG tests to established training standards. The DEP
5 would also conduct annual water system audits and inspections to
6 ensure sampling and testing adherence, and issue alerts to all
7 residents of a municipality in which a public community water
8 systems, water system, or waterway site receives testing results that
9 indicate the presence of ARB or ARG.

10 Through the pilot program, the DEP would be directed to upload
11 results from the ARB and ARG detection pilot program to a
12 centralized Internet site and database, to be known as the “New
13 Jersey ARB and ARG in Water Systems Database”.

14 The DOH would cross-reference all data with hospital and
15 pharmaceutical data in order to ensure comprehensive coverage
16 following standardized sampling protocols. The DOH would also
17 be required to develop and publish research on the association
18 between environmental ARB and ARG exposure and
19 neurodegenerative diseases.

20 Through the pilot program established pursuant to section 2 of
21 the bill, the DEP and the DOH would require hospitals exceeding
22 100 beds or discharging more than 0.5 million gallons of water per
23 day to install advanced wastewater treatment technologies to test
24 for the presence of ARB and ARG, authorizing these hospitals to
25 contract with a third-party, provided that the hospital site has
26 attained non-detection of ARB and ARG for at least ninety
27 consecutive days prior to testing, and provided that all compliance
28 and monitoring requirements are met. The DEP would also regulate
29 hospital compliance with all ARB and ARG testing standards.

30 Under the bill, the DEP would enforce phased performance
31 standards for ARB and ARG reduction at public water utilities,
32 wastewater treatment plants, and other water systems, requiring a
33 minimum standard of 90 percent reduction in the incidence of ARB
34 and ARG across all State water systems. The performance
35 standards would be enforced in phases over two years of the pilot
36 program, with each phase eight months in duration. Phase one
37 would certify attainment of ARB and ARG performance standards
38 at public water utilities, wastewater treatment plants, and water
39 systems servicing a population of greater than 10,000; phase two
40 would certify the attainment of performance standards at public
41 water utilities, wastewater treatment plants, and water systems
42 servicing a population between 3,300 and 10,000; and phase three
43 would certify the attainment of ARB and ARG performance
44 standards at water utilities, wastewater treatment plants, and water
45 systems servicing a population of fewer than 3,300.

46 The DEP would be authorized, in collaboration with the State
47 Infrastructure Bank’s Water Bank, to distribute grants, loans, and
48 cost sharing programs for the pilot program. The DEP, DOH, and

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1 Infrastructure Bank would receive a collective appropriation of \$3
2 million to implement the provisions of this bill. In addition to
3 submitting annual reports on the pilot program, the DEP, DOH, and
4 the Infrastructure Bank would advise the Governor and the
5 Legislature on the continuation of the pilot program, and
6 recommendations for improvement.