

SENATE COMMITTEE SUBSTITUTE FOR  
**SENATE, No. 647**

**STATE OF NEW JERSEY**  
**219th LEGISLATURE**

ADOPTED JANUARY 27, 2020

**Sponsored by:**

**Senator LINDA R. GREENSTEIN**

**District 14 (Mercer and Middlesex)**

**Senator TROY SINGLETON**

**District 7 (Burlington)**

**SYNOPSIS**

Revises cybersecurity, asset management, and related reporting requirements in “Water Quality Accountability Act.”

**CURRENT VERSION OF TEXT**

Substitute as adopted by the Senate Community and Urban Affairs Committee.



1 **AN ACT** concerning cybersecurity and asset management at public  
2 water systems and amending and supplementing P.L.2017, c.133.

3  
4 **BE IT ENACTED** by the Senate and General Assembly of the State  
5 of New Jersey:

6  
7 1. Section 2 of P.L.2017, c.133 (C.58:31-2) is amended to read  
8 as follows:

9 2. As used in this act:

10 "Board" means the Board of Public Utilities.

11 "Cybersecurity incident" means an event occurring on or  
12 conducted through a computer network that jeopardizes the  
13 integrity, confidentiality, or availability of computers, information  
14 or communications systems or networks, physical or virtual  
15 infrastructure controlled by computers or information systems, or  
16 information residing thereon.

17 "Department" means the Department of Environmental  
18 Protection.

19 "Industrial control system" means an information system used to  
20 control industrial processes such as manufacturing, product  
21 handling, production, or distribution. "Industrial control system"  
22 includes supervisory control and data acquisition systems used to  
23 control geographically dispersed assets, and distributed control  
24 systems and smaller control systems using programmable logic  
25 controllers to control localized processes.

26 "Information resource" means information and related resources,  
27 such as personnel, equipment, funds, and information technology.

28 "Information system" means a discrete set of information  
29 resources organized for the collection, processing, maintenance,  
30 use, sharing, dissemination, or disposition of information.

31 "Public water system" means the same as the term is defined in  
32 section 3 of P.L.1977, c.224 (C.58:12A-3).

33 "Water purveyor" means any person that owns a public water  
34 system with more than 500 service connections.

35 (cf: P.L.2017, c.133, s.2)

36  
37 2. Section 4 of P.L.2017, c.133 (C.58:31-4) is amended to read  
38 as follows:

39 4. a. Within 120 days after the effective date of **[this act]**  
40 P.L.2017, c.133 (C.58:31-1 et seq.), each water purveyor shall  
41 develop a cybersecurity program, in accordance with requirements  
42 established by the board, as rules and regulations adopted pursuant  
43 to the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-  
44 1 et seq.), that defines and implements organization accountabilities  
45 and responsibilities for cyber risk management activities, and

**EXPLANATION** – Matter enclosed in bold-faced brackets **[thus]** in the above bill is  
not enacted and is intended to be omitted in the law.

Matter underlined thus is new matter.

1 establishes policies, plans, processes, and procedures for identifying  
2 and mitigating cyber risk to its public water system. As part of the  
3 program, a water purveyor shall conduct risk assessments and  
4 implement appropriate controls to mitigate identified risks to the  
5 public water system, maintain situational awareness of cyber threats  
6 and vulnerabilities to the public water system, and create and  
7 exercise incident response and recovery plans. No later than 120  
8 days after the effective date of P.L. , c. (C. ) (pending before  
9 the Legislature as this bill), a water purveyor shall update its  
10 cybersecurity program to conform to the requirements of section 3  
11 of P.L. , c. (C. ) (pending before the Legislature as this bill).

12 A copy of the program developed pursuant to this subsection  
13 shall be provided to the New Jersey Cybersecurity and  
14 Communications Integration Cell, established pursuant to Executive  
15 Order No. 178 (2015) in the New Jersey Office of Homeland  
16 Security and Preparedness.

17 b. Within 60 days after developing the program required  
18 pursuant to subsection a. of this section, each water purveyor shall  
19 join the New Jersey Cybersecurity and Communications Integration  
20 Cell, established pursuant to Executive Order No. 178 (2015), and  
21 create a cybersecurity incident reporting process.

22 **【c. A water purveyor that does not have an internet-connected**  
23 **control system shall be exempt from the requirements of this**  
24 **section.】** (Deleted by amendment, P.L. , c. (pending before the  
25 Legislature as this bill)  
26 (cf: P.L.2017, c.133, s.4)  
27

28 3. (New section) a. In addition to the requirements of section 4  
29 of P.L.2017, c.133 (C.58:31-4), and the requirements established by  
30 the board pursuant thereto, no later than 120 days after the effective  
31 date of P.L. , c. (C. ) (pending before the Legislature as this  
32 bill), each water purveyor shall update its cybersecurity program  
33 developed pursuant to section 4 of P.L.2017, c.133 (C.58:31-4) to  
34 apply to all of the public water system's industrial control systems,  
35 and to reasonably conform to the most recent version of one or  
36 more of the following industry-recognized cybersecurity  
37 frameworks:

38 (1) the Framework for Improving Critical Infrastructure  
39 Cybersecurity developed by the National Institute of Standards and  
40 Technology;

41 (2) the Center for Internet Security Critical Security Controls for  
42 Effective Cyber Defense; or

43 (3) the International Organization for Standardization and  
44 International Electrotechnical Commission 27000 family of  
45 standards for an information security management system.

46 b. Whenever a final revision to one or more of the frameworks  
47 listed in subsection a. of this section is published, a water purveyor  
48 whose cybersecurity program reasonably conformed to that

1 framework shall revise its cybersecurity program to reasonably  
2 conform to the revised framework, no later than 120 days after  
3 publication of the revised framework.

4 c. No later than one year after the effective date of P.L. , c.  
5 (C. ) (pending before the Legislature as this bill), and each year  
6 thereafter, each water purveyor shall submit to the department and  
7 to the New Jersey Cybersecurity and Communications Integration  
8 Cell, established pursuant to Executive Order No. 178 (2015), a  
9 certification demonstrating that the water purveyor is in compliance  
10 with the requirements of this section. The certification shall be  
11 made in the form and manner as determined by the department, in  
12 consultation with the New Jersey Cybersecurity and  
13 Communications Integration Cell.

14 d. A water purveyor shall, upon the request of the department or  
15 the New Jersey Cybersecurity and Communications Integration  
16 Cell, provide proof of compliance with the requirements of this  
17 section, in a form and manner as determined by the department or  
18 by the New Jersey Cybersecurity and Communications Integration  
19 Cell.

20 e. The board shall update any requirements it has established for  
21 cybersecurity programs pursuant to subsection a. of section 4 of  
22 P.L.2017, c.133 (C.58:31-4) to conform to the requirements of this  
23 section.

24  
25 4. (New section) Beginning 90 days after the effective date of  
26 P.L. , c. (C. ) (pending before the Legislature as this bill),  
27 each water purveyor shall immediately report to the New Jersey  
28 Cybersecurity and Communications Integration Cell, and in  
29 accordance with all applicable laws, rules and regulations:

30 a. any cybersecurity incident that results in the compromise of  
31 the confidentiality, integrity, availability, or privacy of the water  
32 purveyor's utility billing, communications, data management, or  
33 business information systems, or the information thereon; and

34 b. any cybersecurity incident against the water purveyor's  
35 industrial control system, including monitoring, operations, and  
36 centralized control systems, that adversely impact, disable, or  
37 manipulate infrastructure, resulting in loss of service, contamination  
38 of finished water, or damage to infrastructure.

39  
40 5. Section 6 of P.L.2017, c.133 (C.58:31-6) is amended to read  
41 as follows:

42 6. In addition to any other certifications required pursuant to  
43 law, rule, or regulation, the responsible corporate officer of the  
44 public water system, if privately held, executive director, if an  
45 authority, or mayor or chief executive officer of the municipality, if  
46 municipally owned, as applicable, shall be required to certify in  
47 writing each year to the **【Department of Environmental Protection】**  
48 department and, if applicable, the Board of Public Utilities that the

1 water purveyor complies with: all federal and State drinking water  
2 regulations, including water quality sampling, testing, and reporting  
3 requirements; the hydrant and valve requirements set forth in  
4 section 3 of **【this act】** P.L.2017, c.133 (C.58:31-3); the notice of  
5 violation mitigation plan requirements set forth in section 5 of **【this**  
6 **act】** P.L.2017, c.133 (C.58:31-5), if applicable; and the  
7 infrastructure improvement investment required pursuant to section  
8 7 of **【this act】** P.L.2017, c.133 (C.58:31-7). A water purveyor shall  
9 post the annual certification required pursuant to this section on its  
10 Internet website, if applicable.  
11 (cf: P.L.2017, c.133, s.6)

12  
13 6. Section 7 of P.L.2017, c.133 (C.58:31-7) is amended to read  
14 as follows:

15 7. a. Beginning no later than 18 months after the effective date  
16 of **【this act】** P.L.2017, c.133 (C.58:31-1 et seq.), every water  
17 purveyor shall implement an asset management plan designed to  
18 inspect, maintain, repair, and renew its infrastructure consistent  
19 with standards established by the American Water Works  
20 Association. The asset management plan shall include:

21 (1) a water main renewal program designed to achieve a 150-  
22 year replacement cycle, or other **【appropriate】** shorter replacement  
23 cycle as determined by a detailed engineering analysis of the asset  
24 condition and estimated service lives of the water mains serving the  
25 public water system , or by the department;

26 (2) a water supply and treatment program designed to inspect,  
27 maintain, repair, renew, and upgrade wells, intakes, pumps, and  
28 treatment facilities in accordance with all federal and State  
29 regulations, standards established by the American Water Works  
30 Association, and any mitigation plan required pursuant to section 5  
31 of **【this act】** P.L.2017, c.133 (C.58:31-5); and

32 (3) any other programs, plans, or provisions as may be required  
33 by the department pursuant to rules and regulations adopted  
34 pursuant to the "Administrative Procedure Act," P.L.1968, c.410  
35 (C.52:14B-1 et seq.).

36 Each water purveyor shall dedicate funds on an annual basis to  
37 address and remediate the highest priority projects as determined by  
38 its asset management plan.

39 All asset management plans and system condition reports shall  
40 be certified to by the licensed operator or professional engineer of  
41 the public water system and the responsible corporate officer of the  
42 public water system, if privately held, executive director, if an  
43 authority, or mayor or chief executive officer of the municipality, if  
44 municipally owned, as applicable. The replacement cycle shall be  
45 determined by dividing the miles of water main located in the  
46 public water system by 150 or other appropriate demonstration set

1 forth in the certified asset management plan prepared pursuant to  
2 this section.

3 b. **【At least once every three years】** No later than one year  
4 after the effective date of P.L. , c. (C. ) (pending before  
5 the Legislature as this bill), and every three years thereafter, each  
6 water purveyor shall provide to the department and the board, if  
7 applicable, a report based on its asset management plan prepared  
8 pursuant to subsection a. of this section identifying **【the**  
9 **infrastructure improvements to be undertaken in the coming year**  
10 **and the cost of those improvements, as well as identifying the**  
11 **infrastructure improvements completed in the past year and the cost**  
12 **of those improvements】** : (1) the infrastructure improvements  
13 completed in the past three years and the cost of those  
14 improvements, including improvements funded by emergency and  
15 routine capital spending; (2) the infrastructure improvements  
16 planned to be undertaken in the next three years and the estimated  
17 cost of those improvements; and (3) the infrastructure  
18 improvements that will be required over the next 10 years and the  
19 estimated cost of those improvements. A municipal water  
20 department or municipal water authority shall also submit the report  
21 required pursuant to this subsection to the Division of Local  
22 Government Services in the Department of Community Affairs. A  
23 water purveyor shall, upon request, provide a copy of its asset  
24 management plan to the department, the board, or the Division of  
25 Local Government Services in the Department of Community  
26 Affairs.

27 c. The department, the board, and the Department of  
28 Community Affairs shall create a centralized portal allowing for  
29 electronic submittal of the report required pursuant to subsection b.  
30 of this section. The lack of a centralized portal pursuant to this  
31 subsection shall not negate the requirement for a water purveyor to  
32 submit a report pursuant to subsection b. of this section.

33 (cf: P.L.2017, c.133, s.7)

34  
35 7. (New section) a. In addition to the requirements of section 7  
36 of P.L.2017, c.133 (C.58:31-7), no later than 18 months after the  
37 effective date of P.L. , c. (C. ) (pending before the  
38 Legislature as this bill), each water purveyor shall revise its asset  
39 management plan developed pursuant to section 7 of P.L.2017,  
40 c.133 (C.58:31-7) to include:

41 (1) a comprehensive inventory, mapping, and condition  
42 assessment of the public water system's assets, including its pipes,  
43 lead service lines, valves, tanks, pumps, wells, treatment facilities,  
44 hydrants, and other components, and an assessment of the  
45 remaining useful life of each identified asset;

46 (2) level of service goals for the public water system, which may  
47 include, but need not be limited to, goals related to customer service  
48 and accountability, energy and water efficiency and conservation,

1 water main breaks and service interruptions, and social and  
2 environmental considerations;

3 (3) a priority order in which the public water system's assets,  
4 identified in the comprehensive inventory prepared pursuant to  
5 paragraph (1) of this subsection, will be repaired or replaced as part  
6 of the water purveyor's asset management plan, based on each  
7 assets' importance to the proper function of the public water  
8 system, or business risk exposure;

9 (4) the life cycle costs of the public water system's assets,  
10 including a schedule for the maintenance, repair, or replacement of  
11 the assets, and for capital improvements to the public water system,  
12 informed by the priority order developed pursuant to paragraph (3)  
13 of this subsection; and

14 (5) a long-term funding strategy to implement the water  
15 purveyor's asset management plan, including funding sources and  
16 estimated annual expenditures to address prioritized repairs,  
17 upgrades, and treatment.

18 b. The department shall, pursuant to the "Administrative  
19 Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), adopt rules  
20 and regulations to implement the requirements of this section.

21

22 8. (New section) Any person who violates the provisions of  
23 P.L.2017, c.133 (C.58:31-1 et seq.), or any rule or regulation  
24 adopted pursuant thereto, shall be subject to the penalties and other  
25 remedies set forth in section 10 of P.L.1977, c.224 (C.58:12A-10).  
26 No later than 180 days after the effective date of P.L. , c.  
27 (C. )(pending before the Legislature as this bill), the  
28 department shall adopt, pursuant to the "Administrative Procedure  
29 Act," P.L.1968, c.410 (C.52:14B-1 et seq.), a schedule of civil  
30 administrative penalties to be applied pursuant to this section for  
31 specific violations of P.L.2017, c.133 (C.58:31-1 et seq.).

32

33 9. (New section) No later than one year after the effective date  
34 of P.L. , c. (C. ) (pending before the Legislature as this  
35 bill), and annually thereafter, the department shall develop and  
36 publish on its Internet website a report card for each water purveyor  
37 in the State, indicating the water purveyor's compliance with  
38 federal and State drinking water quality standards, its compliance  
39 with the requirements of P.L.2017, c.133 (C.58:31-1 et seq.), and  
40 any other factors the department deems appropriate. The report  
41 card shall be designed to inform the public about the overall  
42 condition of a public water system, and the quality of water coming  
43 from the public water system.

44

45 10. (New section) No later than 18 months after the effective  
46 date of P.L. , c. (C. ) (pending before the Legislature as  
47 this bill), and every three years thereafter, the department shall

- 1 prepare and submit a report to the Governor and, pursuant to section  
2 2 of P.L.1991, c.164 (C.52:14-19.1), the Legislature assessing:
- 3 a. the data submitted by public water systems pursuant to  
4 subsections b. and c. of section 7 of P.L.2017, c.133 (C.58:31-7).  
5 The assessment shall include, but need not be limited to, an analysis  
6 of the total estimated cost of infrastructure improvements to public  
7 water systems, Statewide, required over the next 10 years; and
- 8 b. the compliance of public water systems with the  
9 requirements of P.L.2017, c.133 (C.58:31-1 et seq.) and the rules  
10 and regulations adopted pursuant thereto.
- 11
- 12 11. (New section) The department and the board shall adopt,  
13 pursuant to the “Administrative Procedure Act,” P.L.1968, c.410  
14 (C.52:14B-1 et seq.), rules and regulations as are necessary to carry  
15 out the provisions of P.L.2017, c.133 (C.58:31-1 et seq.).
- 16
- 17 12. This act shall take effect immediately.