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Sponsored by: Assemblyman JOHN F. MCKEON District 27 (Essex and Morris) Assemblyman ROBERT J. KARABINCHAK District 18 (Middlesex) Assemblyman STERLEY S. STANLEY District 18 (Middlesex)

Co-Sponsored by: Assemblyman Benson, Assemblywomen Chaparro and Murphy

SYNOPSIS

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

CURRENT VERSION OF TEXT

As reported by the Assembly Special Committee on Infrastructure and Natural Resources Committee on December 10, 2020, with amendments.



(Sponsorship Updated As Of: 1/27/2021)

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AN ACT concerning cybersecurity and asset management at public 1 2 community water systems and amending and supplementing 3 P.L.2017, c.133. 4 5 **BE IT ENACTED** by the Senate and General Assembly of the State 6 of New Jersey: 7 8 1. Section 2 of P.L.2017, c.133 (C.58:31-2) is amended to read 9 as follows: 10 2. As used in [this act] P.L.2017, c.133 (C.58:31-1 et seq.): "Board" means the Board of Public Utilities. 11 "Cybersecurity incident" means an event occurring on or 12 13 conducted through a computer network that jeopardizes the integrity, 14 confidentiality, or availability of computers, information systems, 15 communications systems, networks, physical or virtual infrastructure 16 controlled by computers or information systems, or information 17 residing thereon. 18 "Cybersecurity insurance policy" means an insurance policy 19 designed to mitigate losses from cybersecurity incidents, including, 20 but not limited to, data breaches, business interruption, and network 21 damage. 22 "Department" means the Department of Environmental 23 Protection. 24 "Industrial control system" means an information system used to control industrial processes such as manufacturing, product handling, 25 production, or distribution. "Industrial control system" includes 26 27 supervisory control and data acquisition systems used to control 28 geographically dispersed assets, and distributed control systems and smaller control systems using programmable logic controllers to 29 30 control localized processes. 31 "Information resource" means information and related resources, 32 such as personnel, equipment, funds, and information technology. 33 "Information system" means a discrete set of information 34 resources organized for the collection, processing, maintenance, use, 35 sharing, dissemination, or disposition of information. "New Jersey Cybersecurity and Communications Integration 36 37 Cell" means the New Jersey Cybersecurity and Communications 38 Integration Cell established pursuant to Executive Order No. 178 39 (2015) in the New Jersey Office of Homeland Security and 40 Preparedness, or any successor entity. 41 "Public community water system" means the same as that term is 42 defined in subsection 1. of section 3 of P.L.1977, c.224 (C.58:12A-43 3).

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 <u>thus</u> is new matter.

Matter enclosed in superscript numerals has been adopted as follows: ¹Assembly ANR committee amendments adopted December 10, 2020.

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1 "Public water system" means the same as the term is defined in 2 section 3 of P.L.1977, c.224 (C.58:12A-3). 3 "Water purveyor" means any person that owns a public 4 community water system with more than 500 service connections. 5 (cf: P.L.2017, c.133, s.2) 6 7 2. Section 4 of P.L.2017, c.133 (C.58:31-4) is amended to read as 8 follows: 9 4. a. Within 120 days after the effective date of [this act] 10 P.L.2017, c.133 (C.58:31-1 et seq.), each water purveyor shall 11 develop a cybersecurity program, in accordance with requirements established by the [board] New Jersey Cybersecurity and 12 13 Communications Integration Cell, as rules and regulations adopted 14 pursuant to the "Administrative Procedure Act," P.L.1968, c.410 15 (C.52:14B-1 et seq.), that defines and implements organization 16 accountabilities and responsibilities for cyber risk management 17 activities, and establishes policies, plans, processes, and procedures 18 for identifying and mitigating cyber risk to its public <u>community</u> 19 water system. As part of the <u>cybersecurity</u> program, a water purveyor 20 shall: identify the individual chiefly responsible for ensuring that the 21 policies, plans processes, and procedures established pursuant to this 22 section are executed in a timely manner; conduct risk assessments 23 and implement appropriate controls to mitigate identified risks to the 24 public <u>community</u> water system **[**,**]** ; maintain situational awareness 25 of cyber threats and vulnerabilities to the public <u>community</u> water 26 system **[**,**]** ; and create and exercise incident response and recovery 27 plans. No later than 180 days after the effective date of 28 P.L., c. (C.) (pending before the Legislature as this bill), a 29 water purveyor shall update its cybersecurity program to conform to 30 the requirements of section 3 of P.L., c. (C.)(pending before 31 the Legislature as this bill). 32 A <u>water purveyor shall submit a</u> copy of the <u>cybersecurity</u> program 33 developed pursuant to this subsection [shall be provided] to the New 34 Jersey Cybersecurity and Communications Integration Cell, 35 established pursuant to Executive Order No. 178 (2015) in the New 36 Jersey Office of Homeland Security and Preparedness] in a form and 37 manner as determined by the New Jersey Cybersecurity and 38 Communications Integration Cell. A cybersecurity program 39 submitted pursuant to this subsection shall not be considered a 40 government record under P.L.1963, c.73 (C.47:1A-1 et seq.), and 41 shall not be made available for public inspection. 42 b. Within 60 days after developing the <u>cybersecurity</u> program 43 required pursuant to subsection a. of this section, each water 44 purveyor shall join the New Jersey Cybersecurity and 45 Communications Integration Cell [, established pursuant to

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Executive Order No. 178 (2015), and create a cybersecurity incident

2 reporting process. 3 c. [A water purveyor that does not have an internet-connected 4 control system shall be exempt from the requirements of this 5 section.] (Deleted by amendment, P.L., c. (pending before the 6 Legislature as this bill) 7 d. No later than 180 days after the effective date of 8 P.L., c. (C.) (pending before the Legislature as this bill), 9 each water purveyor shall obtain a cybersecurity insurance policy

10 that meets any applicable standards adopted by the board.

11 (cf: P.L.2017, c.133, s.4)

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13 3. (New section) a. In addition to the requirements of section 4 14 of P.L.2017, c.133 (C.58:31-4), and the requirements established by 15 the board pursuant thereto, no later than 180 days after the effective 16 date of P.L., c. (C.) (pending before the Legislature as this 17 bill), each water purveyor shall update its cybersecurity program 18 developed pursuant to section 4 of P.L.2017, c.133 (C.58:31-4) to 19 apply to all of the public community water system's industrial control 20 systems, and to reasonably conform to the most recent version of one 21 or more of the following industry-recognized cybersecurity 22 frameworks:

23 (1) the Framework for Improving Critical Infrastructure
24 Cybersecurity developed by the National Institute of Standards and
25 Technology;

26 (2) the Center for Internet Security Critical Security Controls for27 Effective Cyber Defense; or

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

31 b. Whenever a final revision to one or more of the frameworks 32 listed in subsection a. of this section is published, a water purveyor 33 whose cybersecurity program reasonably conformed to that 34 framework shall revise its cybersecurity program to reasonably 35 conform to the revised framework, and submit a copy of the revised cybersecurity program to the New Jersey Cybersecurity and 36 37 Communications Integration Cell, no later than 180 days after 38 publication of the revised framework.

39 c. No later than one year after the effective date of 40 P.L., c. (C.) (pending before the Legislature as this bill), and each year thereafter, each water purveyor shall submit to the 41 42 board, the department, and the New Jersey Cybersecurity and 43 Communications Integration Cell a certification demonstrating that 44 the water purveyor is in compliance with the requirements of this 45 section. The certification shall be made in the form and manner as 46 determined by the department, in consultation with the New Jersey

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1 Cybersecurity and Communications Integration Cell. The 2 certification shall be signed by the responsible corporate officer of 3 the public community water system, if privately held, executive 4 director, if an authority, or mayor or chief executive officer of the 5 municipality, if municipally owned, as applicable.

6 d. The New Jersey Cybersecurity and Communications 7 Integration Cell shall cause to be audited, for compliance with the 8 requirements of section 4 of P.L.2017, c.133 (C.58:31-4) and this 9 section, any public community water system that fails to submit a 10 cybersecurity program as required pursuant to subsection a. of 11 section 4 of P.L.2017, c.133 (C.58:31-4), a revision pursuant to 12 subsection b. of this section, or a certification pursuant to this section. 13 Any audit shall be conducted by a qualified and independent 14 cybersecurity company, at the water purveyor's expense. Following 15 the audit, the water purveyor shall submit the audit and any corrective 16 action plans derived from the audit to the New Jersey Cybersecurity 17 and Communications Integration Cell.

18 e. A water purveyor shall, upon the request of the board, the 19 department, or the New Jersey Cybersecurity and Communications 20 Integration Cell, provide proof of compliance with the requirements 21 of this section, in a form and manner as determined by the board, the 22 department, or by the New Jersey Cybersecurity and 23 Communications Integration Cell.

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

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4. (New section) a. Beginning 90 days after the effective date of
P.L., c. (C.) (pending before the Legislature as this bill), a
water purveyor shall report to the New Jersey Cybersecurity and
Communications Integration Cell, promptly after an employee is
made aware of a cybersecurity incident, and in accordance with all
applicable laws, rules, and regulations:

(1) any cybersecurity incident that results in the compromise of
the confidentiality, integrity, availability, or privacy of the water
purveyor's utility billing, communications, data management, or
business information systems, or the information thereon; and

39 (2) any cybersecurity incident against the water purveyor's
40 industrial control system, including monitoring, operations, and
41 centralized control systems, that adversely impact, disable, or
42 manipulate infrastructure, resulting in loss of service, contamination
43 of finished water, or damage to infrastructure.

b. No later than 30 days after receiving a report of a
cybersecurity incident from a water purveyor pursuant to subsection
a. of this section, the New Jersey Cybersecurity and Communications
Integration Cell shall cause to be audited the water purveyor's

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1 cybersecurity program and any actions the water purveyor took in 2 response to the cybersecurity incident. The audit shall identify cyber 3 threats and vulnerabilities to the public community water system, 4 weaknesses in the public community water system's cybersecurity 5 program, and strategies to address those weaknesses so as to protect 6 the public community water system from the threat of future 7 cybersecurity incidents. Any audit shall be conducted by a qualified 8 and independent cybersecurity company, at the water purveyor's 9 expense. Following the audit, the water purveyor shall submit the 10 audit and any corrective action plans derived from the audit to the 11 New Jersey Cybersecurity and Communications Integration Cell. 12 5. Section 6 of P.L.2017, c.133 (C.58:31-6) is amended to read as 13 14 follows: 6. a. In addition to any other certifications required pursuant to 15 16 law, rule, or regulation, the responsible corporate officer of the public 17 community water system, if privately held, executive director, if an 18 authority, or mayor or chief executive officer of the municipality, if 19 municipally owned, as applicable, shall be required to certify in 20 writing each year to the [Department of Environmental Protection] 21 department and, if applicable, the [Board of Public Utilities] board, 22 in a form and manner as determined by the department, that the water 23 purveyor complies with: all federal and State drinking water 24 regulations, including water quality sampling, testing, and reporting 25 requirements; the hydrant and valve requirements set forth in section 26 3 of [this act] P.L.2017, c.133 (C.58:31-3); the notice of violation 27 mitigation plan requirements set forth in section 5 of [this act] 28 P.L.2017, c.133 (C.58:31-5), if applicable; and the infrastructure improvement investment required pursuant to section 7 of [this act] 29 30 P.L.2017, c.133 (C.58:31-7). A water purveyor shall post the annual 31 certification required pursuant to this section on its Internet website, 32 if applicable. 33 b. The department shall audit, or cause to be audited, for 34 compliance with the requirements of P.L.2017, c.133 (C.58:31-7), 35 any public community water system that fails to submit the 36 certification required pursuant to subsection a. of this section in a 37 timely manner. If the department finds that a water purveyor has 38 made a false or misleading statement in a certification submitted 39 pursuant to subsection a. of this section, the department shall forward 40 the matter to the Attorney General for further investigation and, if 41 necessary, criminal prosecution or other appropriate relief, pursuant 42 to any applicable State or federal law, rule, or regulation. 43 c. The department shall annually audit, or cause to be audited, for 44 compliance with the requirements of P.L.2017, c.133 (C.58:31-7) a 45 random selection of at least 10 percent of all public community water 46 systems in the State.

1 d. The department may require a water purveyor to pay the cost 2 of an audit ordered pursuant to this section. 3 (cf: P.L.2017, c.133, s.6) 4 5 6. Section 7 of P.L.2017, c.133 (C.58:31-7) is amended to read as 6 follows: 7 7. a. Beginning no later than 18 months after the effective date 8 of [this act] P.L.2017, c.133 (C.58:31-1 et seq.), every water 9 purveyor shall implement an asset management plan designed to 10 inspect, maintain, repair, and renew its infrastructure consistent with 11 standards established by the American Water Works Association. 12 The asset management plan shall include: 13 (1) a water main renewal program designed to achieve a 150-year 14 replacement cycle, or other appropriate replacement cycle as 15 determined by a detailed engineering analysis of the asset condition 16 and estimated service lives of the water mains serving the public 17 community water system , or by the department ; 18 (2) a water supply and treatment program designed to inspect, 19 maintain, repair, renew, and upgrade wells, intakes, pumps, and 20 treatment facilities in accordance with all federal and State 21 regulations, standards established by the American Water Works 22 Association, and any mitigation plan required pursuant to section 5 23 of [this act] P.L.2017, c.133 (C.58:31-5); and 24 (3) any other programs, plans, or provisions as may be required 25 by the department pursuant to rules and regulations adopted pursuant 26 to the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 27 et seq.). Each water purveyor shall dedicate adequate funds on an annual 28 29 basis to address and remediate the highest priority projects as 30 determined by its asset management plan. 31 All asset management plans and system condition reports shall be 32 certified to by the licensed operator or professional engineer of the 33 public community water system and the responsible corporate officer 34 of the public community water system, if privately held, executive 35 director, if an authority, or mayor or chief executive officer of the 36 municipality, if municipally owned, as applicable. The replacement 37 cycle shall be determined by dividing the miles of water main located 38 in the public community water system by 150 or other appropriate 39 demonstration set forth in the certified asset management plan 40 prepared pursuant to this section. 41 [At least once every three years] No later than one year after b. the effective date of P.L., c. (C.) (pending before the 42 43 Legislature as this bill), and each year thereafter, each water purveyor 44 shall provide to the department and the board, if applicable, a report 45 based on its asset management plan prepared pursuant to subsection a. of this section identifying [the infrastructure improvements to be 46

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1 undertaken in the coming year and the cost of those improvements, 2 as well as identifying the infrastructure improvements completed in 3 the past year and the cost of those improvements]: (1) the infrastructure improvements completed in the past ¹[three years] 4 5 year¹ and the cost of those improvements, including improvements 6 funded by emergency and routine capital spending; (2) the 7 infrastructure improvements generally planned to be undertaken in 8 the next three years and the estimated cost of those improvements; 9 and (3) the infrastructure improvements that may be required over 10 the next 10 years and the estimated cost of those improvements. 11 Compliance with this subsection may be demonstrated through the 12 submission of evidence of completion of a detailed, comprehensive 13 planning study, facility master planning study, or other long range 14 planning study that is intended for use in developing three- and ten-15 year capital improvement plans. A detailed comprehensive planning 16 study, facility master planning study, or other long range planning 17 study submitted pursuant to this subsection shall not be considered a 18 government record pursuant to P.L.1963, c.73 (C.47:1A-1 et seq.), 19 and shall not be made available for public inspection. A municipal 20 water department or municipal water authority shall also submit the 21 report 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 Community 28 Affairs shall create a centralized portal allowing for electronic 29 submittal of the report required pursuant to subsection b. of this 30 section. The lack of a centralized portal pursuant to this subsection 31 shall not negate the requirement for a water purveyor to submit a 32 report pursuant to subsection b. of this section. 33 (cf: P.L.2017, c.133, s.7)

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

(1) a comprehensive inventory, mapping, and evaluation of the
condition of the public community water system's following asset
classes: transmission and distribution piping, valves, service lines,
hydrants, water treatment plant facilities, and water supply facilities
including wells, reservoirs, and intakes;

1 (2) level of service goals for the public community water system, 2 based upon industry standards such as those established by the 3 American Water Works Association, which may include, but need 4 not be limited to, goals related to customer service and 5 accountability, energy and water efficiency and conservation, water 6 main breaks and service interruptions, and social and environmental 7 considerations;

8 (3) a priority order in which the public community water system's 9 assets, identified in the comprehensive inventory prepared pursuant 10 to paragraph (1) of this subsection, will be repaired or replaced as 11 part of the water purveyor's asset management plan, based on each 12 assets' importance to the proper function of the public community 13 water system, or business risk exposure; and

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

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

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8. (New section) Any person who violates the provisions of P.L.2017, c.133 (C.58:31-1 et seq.), or any rule or regulation adopted pursuant thereto, shall be subject to the penalties and other remedies set forth in section 10 of P.L.1977, c.224 (C.58:12A-10). No later than **1**[180 days] <u>18 months</u>¹ after the effective date of P.L. , c. (C.) (pending before the Legislature as this bill),

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the department shall adopt, pursuant to the "Administrative
Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), a schedule of
civil administrative penalties to be applied pursuant to this section
for specific violations of P.L.2017, c.133 (C.58:31-1 et seq.).
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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 bill), 35 and annually thereafter, the department shall develop and publish on its Internet website a report card for each water purveyor in the State, 36 37 indicating the water purveyor's compliance with federal and State 38 drinking water quality standards, its compliance with the 39 requirements of P.L.2017, c.133 (C.58:31-1 et seq.), and any other 40 factors the department deems appropriate. The report card shall be 41 designed to inform the public about the overall condition of a public 42 community water system, and the quality of water coming from the 43 public community water system.

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4510. (New section) No later than 18 months after the effective date46of P.L., c.(C.) (pending before the Legislature as this

1 bill), and every three years thereafter, the department shall prepare 2 and submit a report to the Governor and, pursuant to section 2 of 3 P.L.1991, c.164 (C.52:14-19.1), the Legislature assessing: a. the data submitted by public community water systems 4 pursuant to subsections b. and c. of section 7 of P.L.2017, c.133 5 (C.58:31-7). The assessment shall include, but need not be limited 6 7 to, an analysis of the total estimated cost of infrastructure 8 improvements to public community water systems, Statewide, 9 required over the next 10 years; and 10 b. the compliance of public community water systems with the 11 requirements of P.L.2017, c.133 (C.58:31-1 et seq.) and the rules and 12 regulations adopted pursuant thereto. 13 14 11. (New section) The department and the board shall adopt, 15 pursuant to the "Administrative Procedure Act," P.L.1968, c.410 16 (C.52:14B-1 et seq.), rules and regulations as are necessary to carry 17 out the provisions of P.L.2017, c.133 (C.58:31-1 et seq.). 18 19 12. Section 3 of P.L.2017, c.133 (C.58:31-3) is amended to read 20 as follows: 21 3. a. Each water purveyor shall inspect each valve in its public 22 community water system in accordance with the provisions of 23 subsection b. of this section in order to determine (1) accessibility of 24 the valve for operational purposes, and (2) the valve's operating 25 condition. A water purveyor shall repair or replace any valve found 26 to be broken or otherwise not operational. b. Each water purveyor shall inspect each valve that is 12 or 27 more inches in diameter at least once every ¹ [two] <u>four</u>¹ years, and 28 shall inspect all other valves at least once every ¹[four] <u>eight</u>¹ years, 29 30 except that the requirements of this subsection shall not apply to any 31 service connection valve or customer shut-off valve. At a minimum, 32 each valve inspection conducted pursuant to this subsection shall 33 include: 34 (1) clearing of the area around the valve to ensure full access to 35 the valve for operating purposes; 36 (2) cleaning out of the valve box; 37 (3) dynamic testing of the valve, by opening and then closing the 38 valve for either of the following number of turns: 39 (a) the number of turns recommended by the valve manufacturer 40 to constitute a credible test; or 41 (b) the number of turns which constitutes 15 percent of the total 42 number of turns necessary to completely open or completely close 43 the valve ; and 44 (4) complying with any other criteria as may be required by the

45 department pursuant to rules and regulations adopted pursuant to the

"Administrative Procedure Act," P.L.1968, c.410 (C.52:14B 1 et seq.).

c. (1) Each water purveyor shall, once a year, test every fire
hydrant in its system in order to determine the hydrant's working
condition.

6 (2) Each water purveyor shall formulate and implement a plan for
7 flushing every fire hydrant in the public <u>community</u> water system,
8 and every dead end of a main in the public <u>community</u> water system.
9 This plan for flushing may be combined with the periodic testing of
10 fire hydrants required pursuant to paragraph (1) of this subsection.

d. Each water purveyor shall keep a record of all inspections,
tests, and flushings conducted pursuant to this section for a period of
at least ¹[six] <u>12</u>¹ years.

14 e. Each water purveyor that owns, solely or jointly, a fire 15 hydrant shall mark each hydrant with the initials of its name, 16 abbreviation of its name, corporate symbol, or other distinguishing 17 mark or code by which ownership may be readily and definitely 18 ascertained. Each fire hydrant shall be marked with a number or 19 symbol, or both, by which the location of the hydrant may be 20 determined on the water purveyor's office records. The markings may be made with ¹[paint, brand, or with]¹ a soft metal plate, ¹<u>plastic, or</u> 21 another durable material,¹ and shall be of such size and so spaced and 22 23 maintained as to be easily read.

f. Each water purveyor shall identify, to the extent possible, the
 geographic location of each valve and fire hydrant in its public
 <u>community</u> water system using a global positioning system based on
 satellite or other location technology.

- 28 (cf: P.L.2017, c.133, s.3)
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30 13. Section 5 of P.L.2017, c.133 (C.58:31-5) is amended to read
31 as follows:

32 5. In addition to any other requirements in law, or any rule or 33 regulation adopted pursuant thereto, whenever a water purveyor is 34 issued, pursuant to section 10 of P.L.1977, c.224 (C.58:12A-10), 35 three notices of violation for any reason or two notices of violation related to an exceedance of a maximum contaminant level within any 36 37 12-month period, the water purveyor, within 60 days after receipt of 38 the third or second notice, as applicable, shall submit to the 39 department a mitigation plan specifying whether the notice of 40 violation will be addressed through operational changes or require a capital expenditure and providing a schedule for implementation of 41 42 the mitigation plan. The mitigation plan shall include a report 43 prepared by the licensed operator of the public community water 44 system and a professional engineer licensed pursuant to P.L.1938, 45 c.342 (C.45:8-27 et seq.) that includes a technical analysis of the 46 notices of violation and an explanation of how the mitigation plan

submitted pursuant to this section is intended to prevent a recurrence
 of the issue that resulted in the notice of violation. Any capital
 expenditures required pursuant to this section shall be incorporated
 into the asset management plan required pursuant to section 7 of [this
 act] P.L.2017, c.133 (C.58:31-7).
 (cf: P.L.2017, c.133, s.5)

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- 8 14. This act shall take effect immediately.