

SENATE BILL 942

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4r3324
CF 4r2051

By: **Senator Gile**

Introduced and read first time: February 2, 2024

Assigned to: Education, Energy, and the Environment

A BILL ENTITLED

1 AN ACT concerning

2 **Environment – Managed Aquifer Recharge Pilot Program – Establishment**

3 FOR the purpose of establishing the Managed Aquifer Recharge Pilot Program; authorizing
4 the Department of the Environment to review, permit, and regulate a process to test
5 the use of treated reclaimed water from a demonstration facility as a source for
6 groundwater augmentation under certain circumstances; and generally relating to
7 the Managed Aquifer Recharge Pilot Program.

8 BY repealing and reenacting, with amendments,

9 Article – Environment

10 Section 1–601(a)

11 Annotated Code of Maryland

12 (2013 Replacement Volume and 2023 Supplement)

13 BY repealing and reenacting, without amendments,

14 Article – Environment

15 Section 9–301(a) and (f)

16 Annotated Code of Maryland

17 (2014 Replacement Volume and 2023 Supplement)

18 BY adding to

19 Article – Environment

20 Section 9–303.4

21 Annotated Code of Maryland

22 (2014 Replacement Volume and 2023 Supplement)

23 SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF MARYLAND,
24 That the Laws of Maryland read as follows:

25 **Article – Environment**

EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.

[Brackets] indicate matter deleted from existing law.



1 1-601.

2 (a) Permits issued by the Department under the following sections shall be issued
3 in accordance with this subtitle:

4 (1) Air quality control permits to construct subject to § 2-404 of this article;

5 (2) Permits to install, materially alter, or materially extend landfill
6 systems, incinerators for public use, or rubble landfills subject to § 9-209 of this article;

7 (3) Permits to discharge pollutants to waters of the State issued pursuant
8 to § 9-323 of this article;

9 (4) Permits to install, materially alter, or materially extend a structure
10 used for storage or distribution of any type of sewage sludge issued, renewed, or amended
11 pursuant to § 9-234.1 or § 9-238 of this article;

12 (5) Permits to own, operate, establish, or maintain a controlled hazardous
13 substance facility issued pursuant to § 7-232 of this article;

14 (6) Permits to own, operate, or maintain a hazardous material facility
15 issued pursuant to § 7-103 of this article;

16 (7) Permits to own, operate, establish, or maintain a low-level nuclear
17 waste facility issued pursuant to § 7-233 of this article; [and]

18 (8) Potable reuse permits issued in accordance with § 9-303.2 of this
19 article; AND

20 **(9) MANAGED AQUIFER RECHARGE PILOT PERMITS ISSUED IN**
21 **ACCORDANCE WITH § 9-303.4 OF THIS ARTICLE.**

22 9-301.

23 (a) In this subtitle the following words have the meanings indicated.

24 (f) "Reclaimed water" means sewage that:

25 (1) Has been treated to a high quality suitable for various reuses; and

26 (2) Has a concentration of less than:

27 (i) 3 fecal coliform colonies per 100 milliliters;

28 (ii) 10 milligrams per liter of 5-day biological oxygen demand; and

29 (iii) 10 milligrams per liter of total suspended solids.

1 **9-303.4.**

2 (A) (1) IN THIS SECTION THE FOLLOWING WORDS HAVE THE MEANINGS
3 INDICATED.

4 (2) "DEMONSTRATION FACILITY" MEANS AN ADVANCED WATER
5 TREATMENT FACILITY APPROVED UNDER A MANAGED AQUIFER RECHARGE PERMIT
6 TO TREAT RECLAIMED WATER FOR USE AS A SOURCE FOR TESTING GROUNDWATER
7 AUGMENTATION.

8 (3) "MANAGED AQUIFER RECHARGE PERMIT" MEANS A PERMIT
9 ISSUED BY THE DEPARTMENT TO AUTHORIZE AND REGULATE THE TREATMENT AND
10 UNDERGROUND INJECTION OF TREATED RECLAIMED WATER FOR THE PURPOSE OF
11 TESTING THE FEASIBILITY OF AND REQUIREMENTS FOR SAFELY CONDUCTING
12 GROUNDWATER AUGMENTATION.

13 (4) "PFAS CHEMICALS" MEANS PER- AND POLYFLUOROALKYL
14 SUBSTANCES.

15 (5) "PILOT PROGRAM" MEANS THE MANAGED AQUIFER RECHARGE
16 PILOT PROGRAM.

17 (B) THERE IS A MANAGED AQUIFER RECHARGE PILOT PROGRAM IN THE
18 DEPARTMENT.

19 (C) THE PURPOSE OF THE PILOT PROGRAM IS TO AUTHORIZE THE TESTING
20 OF THE REGULATED USE OF TREATED RECLAIMED WATER AS A SOURCE FOR
21 GROUNDWATER AUGMENTATION THROUGH THE ISSUANCE OF MANAGED AQUIFER
22 RECHARGE PERMITS.

23 (D) (1) THE DEPARTMENT MAY REVIEW, PERMIT, AND REGULATE A
24 PROCESS TO TEST THE USE OF TREATED RECLAIMED WATER FROM A
25 DEMONSTRATION FACILITY AS A SOURCE FOR GROUNDWATER AUGMENTATION
26 THROUGH A MANAGED AQUIFER RECHARGE PERMIT IF THE DEPARTMENT
27 DETERMINES THAT:

28 (I) THE RECLAIMED WATER WILL BE TREATED AT A
29 DEMONSTRATION FACILITY TO MEET OR SURPASS THE FOLLOWING REQUIREMENTS:

30 1. PRIMARY AND SECONDARY MAXIMUM CONTAINMENT
31 LEVELS ESTABLISHED BY:

1 **A. THE U.S. ENVIRONMENTAL PROTECTION AGENCY**
2 **UNDER 40 C.F.R. §§ 141 AND 143; AND**

3 **B. THE DEPARTMENT UNDER COMAR 26.04.01;**

4 **2. TREATMENT FOR REMOVAL OF PATHOGENS AT THE**
5 **WASTEWATER TREATMENT STAGE AND ADVANCED WATER TREATMENT STAGE THAT,**
6 **IN TOTAL, MEETS OR EXCEEDS:**

7 **A. 12 LOG FOR ENTERIC VIRUS REDUCTION;**

8 **B. 10 LOG FOR GIARDIA CYST REDUCTION; AND**

9 **C. 10 LOG CRYPTOSPORIDIUM OOCYST REDUCTION; AND**

10 **3. MAXIMUM CONCENTRATIONS OF PFAS CHEMICALS**
11 **ESTABLISHED BY THE DEPARTMENT AND SPECIFIED IN ANY PRIMARY DRINKING**
12 **WATER REGULATIONS ESTABLISHED BY THE U.S. ENVIRONMENTAL PROTECTION**
13 **AGENCY IN A FINAL RULEMAKING UNDER THE FEDERAL SAFE DRINKING WATER**
14 **ACT;**

15 **(II) THE TREATED RECLAIMED WATER WILL UNDERGO TESTING**
16 **AND REPORTING TO VERIFY THAT THE REQUIREMENTS OF ITEM (I) OF THIS**
17 **PARAGRAPH ARE MET;**

18 **(III) THE TREATMENT OF THE RECLAIMED WATER INCLUDES**
19 **REVERSE OSMOSIS;**

20 **(IV) THE APPLICANT HAS IN PLACE A DETAILED TESTING AND**
21 **MONITORING PLAN TO DEMONSTRATE FACILITY PERFORMANCE AND**
22 **GROUNDWATER COMPATIBILITY DURING UNDERGROUND INJECTION, INCLUDING**
23 **ESTABLISHING PARAMETERS FOR AUTHORIZING UNDERGROUND INJECTIONS AND**
24 **REQUIRING ALTERNATIVE METHODS OF USE OR DISPOSAL WHEN THE INJECTION**
25 **PARAMETERS ARE NOT MET;**

26 **(V) THE APPLICANT GIVES THE DEPARTMENT THE RIGHT OF**
27 **ENTRY ON THE PERMIT SITE AT ANY REASONABLE TIME TO INSPECT OR**
28 **INVESTIGATE FOR A VIOLATION OR ANY POTENTIAL VIOLATION OF THE MANAGED**
29 **AQUIFER RECHARGE PERMIT;**

30 **(VI) THE PROCESS INCLUDES APPROPRIATE RECORD-KEEPING**
31 **REQUIREMENTS; AND**

1 **(VII) THE PROCESS COMPLIES WITH ALL OTHER APPLICABLE**
2 **STATUTORY AND REGULATORY REQUIREMENTS.**

3 **(2) THE DEPARTMENT MAY APPROVE THE USE BY A DEMONSTRATION**
4 **FACILITY OF ANY DRINKING WATER TREATMENT TECHNOLOGIES THAT HAVE THE**
5 **CAPABILITY TO MEET THE REQUIREMENTS OF PARAGRAPH (1)(I) OF THIS**
6 **SUBSECTION, INCLUDING NONMEMBRANE TREATMENT SYSTEMS.**

7 **(E) (1) THE DEPARTMENT MAY INCLUDE IN A MANAGED AQUIFER**
8 **RECHARGE PERMIT ANY TERM, CONDITION, OR REQUIREMENT THAT THE**
9 **DEPARTMENT CONSIDERS APPROPRIATE TO PROTECT PUBLIC HEALTH OR THE**
10 **ENVIRONMENT.**

11 **(2) THE REQUIREMENTS OF A MANAGED AQUIFER RECHARGE PERMIT**
12 **ARE SUPPLEMENTAL TO AND DO NOT OVERRIDE ANY OTHER LAW, REGULATION,**
13 **PERMIT, ORDER, OR DECREE.**

14 **(3) THE PROVISIONS OF TITLE 1, SUBTITLE 6 OF THIS ARTICLE**
15 **SHALL GOVERN THE ISSUANCE OF MANAGED AQUIFER RECHARGE PERMITS.**

16 **(F) A SUCCESSFUL APPLICATION FOR A MANAGED AQUIFER RECHARGE**
17 **PERMIT SHALL:**

18 **(1) DEMONSTRATE TO THE SATISFACTION OF THE DEPARTMENT:**

19 **(I) THE ABILITY TO COMPLY WITH THE REQUIREMENTS OF**
20 **THIS SECTION;**

21 **(II) THE APPLICANT'S AVAILABLE FUNDING FOR THE**
22 **CONSTRUCTION AND OPERATION OF THE DEMONSTRATION FACILITY;**

23 **(III) THE TECHNICAL AND ADMINISTRATIVE CAPACITY TO**
24 **PERFORM THE PROCESS COVERED UNDER THE PERMIT; AND**

25 **(IV) THAT ALL NECESSARY PLANNING AND ENGINEERING**
26 **DESIGN IS COMPLETE; AND**

27 **(2) INCLUDE ANY ADDITIONAL INFORMATION REQUESTED BY THE**
28 **DEPARTMENT.**

29 **(G) THE DEPARTMENT MAY REFUSE TO ISSUE A MANAGED AQUIFER**
30 **RECHARGE PERMIT IF:**

1 **(1) THE APPLICANT FAILS TO PROVIDE ANY INFORMATION**
2 **REQUESTED BY THE DEPARTMENT;**

3 **(2) THE APPLICANT FAILS OR REFUSES TO ALLOW THE DEPARTMENT**
4 **TO INSPECT THE PERMIT SITE;**

5 **(3) THE DEPARTMENT FINDS THAT ISSUANCE OF THE PERMIT WOULD**
6 **VIOLATE ANY STATE OR FEDERAL LAW OR ANY REGULATION ADOPTED UNDER ANY**
7 **STATE OR FEDERAL LAW;**

8 **(4) THE SOURCE OF THE RECLAIMED WATER FAILS TO COMPLY WITH**
9 **ANY STATE OR FEDERAL LAW, ANY REGULATION ADOPTED UNDER ANY STATE OR**
10 **FEDERAL LAW, OR ANY PERMIT; OR**

11 **(5) THE APPLICANT FAILS TO DEMONSTRATE COMPLIANCE WITH**
12 **THIS SECTION TO THE DEPARTMENT'S SATISFACTION.**

13 **(H) (1) A MANAGED AQUIFER RECHARGE PERMIT ISSUED UNDER THE**
14 **PILOT PROGRAM SHALL BE EFFECTIVE FOR 10 YEARS FROM THE DATE OF**
15 **ISSUANCE.**

16 **(2) THE DEPARTMENT MAY RENEW A MANAGED AQUIFER RECHARGE**
17 **PERMIT FOR AN ADDITIONAL PERIOD OR PERIODS OF 5 YEARS FOLLOWING**
18 **ADMINISTRATIVE REVIEW BY THE DEPARTMENT AND SUBJECT TO THE PROVISIONS**
19 **OF TITLE 1, SUBTITLE 6 OF THIS ARTICLE.**

20 **(I) THE DEPARTMENT MAY REVOKE A MANAGED AQUIFER RECHARGE**
21 **PERMIT ISSUED UNDER THIS SECTION IF THE DEPARTMENT FINDS THAT:**

22 **(1) THE APPLICATION INCLUDED FALSE OR INACCURATE**
23 **INFORMATION;**

24 **(2) CONDITIONS OR REQUIREMENTS OF THE PERMIT HAVE BEEN OR**
25 **ARE ABOUT TO BE VIOLATED;**

26 **(3) SUBSTANTIAL DEVIATION FROM PLANS, SPECIFICATIONS, OR**
27 **REQUIREMENTS HAS OCCURRED OR IS ABOUT TO OCCUR;**

28 **(4) THE DEPARTMENT IS REFUSED ENTRY TO ANY PREMISES FOR**
29 **THE PURPOSE OF INSPECTING THE PROCESS TO ENSURE COMPLIANCE WITH THE**
30 **PERMIT;**

31 **(5) A CHANGE IN CONDITIONS EXISTS THAT REQUIRES THE**

1 TEMPORARY OR PERMANENT REDUCTION OR ELIMINATION OF THE USE OF TREATED
2 RECLAIMED WATER FOR GROUNDWATER AUGMENTATION;

3 (6) THERE IS ANY NONCOMPLIANCE WITH A DISCHARGE PERMIT OR A
4 PRETREATMENT REQUIREMENT THAT MAY AFFECT THE RECLAIMED WATER IN ANY
5 MANNER;

6 (7) ANY STATE OR FEDERAL WATER QUALITY STANDARD OR
7 EFFLUENT LIMITATION HAS BEEN OR IS THREATENED TO BE VIOLATED;

8 (8) ANY STATE OR FEDERAL REQUIREMENT ESTABLISHED UNDER
9 THE FEDERAL SAFE DRINKING WATER ACT, SUBTITLE 4 OF THIS TITLE, OR TITLE
10 12 OF THIS ARTICLE HAS BEEN OR IS THREATENED TO BE VIOLATED; OR

11 (9) THE TREATED RECLAIMED WATER MAY THREATEN PUBLIC
12 HEALTH, SAFETY, COMFORT, OR THE ENVIRONMENT.

13 (J) (1) ON OR BEFORE SEPTEMBER 1 EACH YEAR, EACH HOLDER OF A
14 MANAGED AQUIFER RECHARGE PERMIT SHALL REPORT TO THE DEPARTMENT ON:

15 (I) THE APPLIED SCIENTIFIC RESULTS OF ANY
16 DEMONSTRATION FACILITY OR GROUNDWATER AUGMENTATION ACTIVITIES
17 UNDERTAKEN UNDER THE PILOT PROGRAM; AND

18 (II) ANY RECOMMENDATIONS FOR THE PILOT PROGRAM BASED
19 ON THE HOLDER'S EXPERIENCE IN THE PILOT PROGRAM.

20 (2) ON OR BEFORE DECEMBER 31 EACH YEAR, THE DEPARTMENT
21 SHALL REPORT TO THE GOVERNOR AND, IN ACCORDANCE WITH § 2-1257 OF THE
22 STATE GOVERNMENT ARTICLE, THE GENERAL ASSEMBLY ON:

23 (I) THE STATUS OF THE PILOT PROGRAM;

24 (II) ANY SCIENTIFIC RESULTS AND RECOMMENDATIONS
25 REPORTED UNDER PARAGRAPH (1) OF THIS SUBSECTION;

26 (III) WHETHER THE PILOT PROGRAM SHOULD BE MODIFIED,
27 EXTENDED, OR MADE PERMANENT; AND

28 (IV) ANY STATUTORY OR REGULATORY CHANGES THAT THE
29 DEPARTMENT RECOMMENDS TO PERMANENTLY AUTHORIZE THE REGULATED USE
30 OF TREATED RECLAIMED WATER AS A SOURCE FOR GROUNDWATER AUGMENTATION,
31 IF APPROPRIATE.

1 **(K) THE DEPARTMENT MAY ADOPT REGULATIONS TO CARRY OUT THIS**
2 **SECTION.**

3 SECTION 2. AND BE IT FURTHER ENACTED, That this Act shall take effect
4 October 1, 2024.