IN THE MATTER OF BACK RIVER WASTEWATER TREATMENT PLANT 8201 Eastern Avenue Baltimore, Maryland

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SECRETARY OF THE ENVIRONMENT

SERVE ON:

MARYLAND ENVIRONMENTAL
SERVICE
259 Najoles Road
Millersville, Maryland 21108

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<u>DIRECTIVE TO THE MARYLAND ENVIRONMENTAL SERVICE</u> <u>BY THE SECRETARY OF THE ENVIRONMENT</u>

The Secretary of the Environment ("Secretary"), on behalf of the Maryland Department of the Environment ("Department"), pursuant to the powers, duties, and responsibilities set forth in the Maryland Annotated Code, Environment Article, § 9-252(a) and (b), and Natural Resources Article, § 3-109(c) and (d), issues this Directive to the Maryland Environmental Service ("Service") in order to ensure protection of public and environmental health, as follows.

APPLICABLE LAW

- 1. The General Assembly has empowered the Secretary with the duty and powers to protect public health and the environment. Among other powers and duties enumerated in the Environment Article, § 9-252(a) authorizes the Secretary to take action to address pollution of waters of the State; specifically:
 - (a)(1) To prevent or correct pollution of the waters of this State, the Secretary may:
 - (i) Adopt and enforce regulations; and
 - (ii) Order works to be executed.

(2) The Secretary may:

- (i) Require any public water supply system, public sewerage system, or refuse disposal system to be operated in a manner that will protect public health and comfort; and
- (ii) Order the alteration, extension, or replacement of any public water supply system, public sewerage system, or refuse disposal system.
- 2. Section 9-252(b) of the Environment Article grants the Secretary the power to require that any public sewage system be operated in a manner that will protect public health and comfort; specifically:

(b) The Secretary:

- (1) Has supervision and control over the sanitary and physical condition of the waters of this State to protect public health and comfort;
 - (2) Shall investigate:
 - (i) All sources of water and ice; and
 - (ii) All points of sewage discharge;
- (3) Shall examine all public water supply systems, public sewerage systems, and refuse disposal systems; and
- (4) Shall approve or disapprove the design and construction of any public water supply system, public sewerage system, or refuse disposal system that is to be built in this State.
- 3. In addition, § 3-109(c) of the Natural Resource Article provides that:
- (1) Upon the failure of a municipality or person to comply with an order of the Secretary of the Environment to correct deficiencies on the operation of sewerage systems or refuse disposal works as provided in Title 9 of the Environment Article, the Secretary of the Environment shall direct the Service to take charge of and operate the systems or works to secure the results demanded by the Secretary of the Environment.

- (2) Except as provided in subsection (e) of this section, upon the receipt of the directive from the Secretary of the Environment, the Service immediately shall take charge of and operate the systems or works to secure the results set forth in the directive of the Secretary of the Environment. All costs for maintenance, operation, and other services including legal fees incidental to taking possession of the sewerage system or refuse disposal works shall be charged to the municipality or person against which or whom the original order of the Secretary of the Environment was served.
- (3) (i) Funds to pay the Service for services rendered under this subsection shall be raised in the case of a municipality under Title 9 of the Environment Article.
- (ii) If the order is issued against a person, the Service shall bill the person for the full cost of services rendered.
- (iii) If payment is not made within 60 days, the costs become a lien against the sewerage system or refuse disposal works if it is recorded and indexed as provided in this subtitle, and the Director shall refer the matter to the Attorney General for collection.

4. Section 3-109(d) of the Natural Resource Article also provides that:

- (1) Upon failure of a municipality or person to comply with an order of the Secretary of the Environment to extend or alter a sewerage system or refuse disposal works as provided in Title 9 of the Environment Article, the Secretary of the Environment shall direct the Service to make alterations or extensions to the systems or works, or install a new system or works as the Secretary of the Environment deems necessary to correct the improper conditions.
- (2) Except as provided in subsection (e) of this section, upon receipt of the directive from the Secretary of the Environment, the Service shall assume jurisdiction over the systems or works and make the alterations, extensions, or new construction required to comply with the directive of the Secretary of the Environment. All costs, including legal fees incidental to assuming jurisdiction over the system or works, shall be charged to the municipality or person against which or whom the order of the Secretary of the Environment was issued.
- (3) Funds to pay the Service for costs incurred as a result of actions taken under this subsection may be raised as provided in Title 9 of the Environment Article. If the order was against a person, the Service shall charge the person with the cost of making the necessary improvements to comply with the directive of the Secretary of the Environment. If the person fails to pay within 60 days, the cost becomes a lien against the property served if it is recorded and indexed as provided in this subtitle, and the matter shall be referred to the Attorney General for collection.

- 5. Finally, § 3-109(e) of the Natural Resources Article provides:
- (1) In the event the Service determines, at any time, that it will be unable to recoup all or a portion of its costs from the municipality or persons subject to the order of the Secretary of the Environment, the Service shall provide to the Secretary a full accounting of all costs incurred or anticipated to be incurred by it in complying with the Secretary's directive.
- (2) Within 30 days of receipt of the accounting, the Secretary may request that the Service provide additional information.
- (3) Within 90 days of receipt of the accounting or, when applicable, the additional information, the State shall pay to the Service the full amount of the Service's costs that are not paid or reasonably expected to be paid by the municipality or persons.
- (4) (i) The State's payment of any amount to the Service does not preclude the State from seeking or obtaining reimbursement from the municipality or persons subject to the order of the Secretary.
- (ii) The Service shall cooperate fully with the Secretary in seeking reimbursement from the municipality or persons.

FACTUAL BACKGROUND

- 6. The Mayor and City Council of Baltimore ("Baltimore City") applied for, and the Department established conditions and requirements and authorized Baltimore City, pursuant to Title 9, subtitle 3 of the Environment Article and NPDES Discharge Permit Number MD0021555, State Discharge Permit Number 15-DP-0581A (effective May 1, 2018; modified January 1, 2020; expires April 30, 2023) ("Back River Discharge Permit"), to discharge from the Back River Wastewater Treatment Plant ("Back River WWTP" or the "Plant"), located at 8201 Eastern Avenue, Baltimore, Maryland.
- 7. The Back River Discharge Permit (a) details the actions that Baltimore City is required to take to operate the Back River WWTP, and (b) limits Baltimore City's discharges of

pollutants to (i) Outfall 001A in the Back River, and (ii) Outfall 002A at Bear Creek. The Back River, which is designated as Use II waters protected for estuarine and marine aquatic life, then flows to the Chesapeake Bay.

- 8. On or about June 16, 2021, September 20, 2021, and December 29, 2021, the Department conducted inspections at the Back River WWTP. During these inspections, and as a result of reviewing information and materials submitted by Baltimore City before and after these inspections in accordance with the terms of the Permit, the Department observed extensive violations of General and Special Conditions contained in the Back River Discharge Permit.¹
- 9. On March 22, 2022, the Department conducted an additional inspection of the Back River WWTP. This inspection revealed a precipitous decline of the functioning of several critical processes at the Plant in comparison with prior Department inspections. The March 22, 2022, inspection revealed significantly increased noncompliance with the Back River Discharge Permit that is causing new or increased unpermitted discharges to Back River. Additional data from Discharge Monitoring Reports submitted by Baltimore City indicate monthly violations of total suspended solids ("TSSs"), total nitrogen, and total phosphorus.
 - 10. Specifically, the March 22, 2022, inspection report revealed that:
 - a. Only 2 of the 11 primary settling tanks ("PSTs") were in service, and 1 of the 2 operating PSTs requires maintenance to function properly. The Back River WWTP does not have sufficient PST capacity to treat its primary waste stream;

¹ As a result of the extensive violations of General and Special Conditions contained in the Back River Discharge Permit observed by the Department, on January 21, 2022, the Department filed an action against Baltimore City under Title 9, subtitle 3 of the Environment Article in the Circuit Court for Baltimore City, Case No. 24-C-22-000386.

- b. Denitrification filters ("DN Filters") were not functioning as designed because of the presence of a high solids concentration in the DN Filter influent. The Plant has 52 DN Filters arranged in 4 quads of 13 DN Filters each. Quads 1, 2 and 4 are not functioning properly because they are underwater. Additionally, the 13 DN Filters in Quad 4 are not functioning properly because they require various mechanical maintenance. These improperly functioning DN Filters are causing DN Filter influent to bypass permit required Enhanced Nutrient Reduction ("ENR") treatment. In addition, the Department observed the presence of hydrogen sulfite (sewer gas) at the DN Filters which indicates operational or treatment process deficiencies; this is possibly related to incorrect methanol dosing;
- c. January 2022 concentrations of TSS in DN Filter influent ranged between 31 and 292 mg/L. This indicates that the solids settling processes are failing. These high concentrations are causing intermittent and chronic clogging of the DN Filter system;
- d. Significant algal and vegetation have grown on the weirs of the secondary clarifiers. This has caused the short circuiting of the system and likely negatively impacts TSS concentration in the Plant's treatment train wastewater;
- e. Significant amounts of solids have accumulated in the secondary clarifiers.

 This accumulation is decreasing the quality of the Plant's final effluent.
- f. Significant amounts of vegetation (*e.g.*, reed grasses) have grown and are established in the secondary clarifiers. This is preventing the proper functioning of these clarifiers; and
 - g. Significant amounts of vegetation (e.g., reed grasses) have grown and are

established in the biological reactors. This is preventing the proper functioning of these reactors.

- 11. The Department has determined that the decline in the proper maintenance and operation of the Plant risks catastrophic failures at the Plant that may result in environmental harm as well as adverse public health and comfort effects.
- 12. Therefore, pursuant to § 9-252(a) of the Environment Article, to prevent or correct pollution of the waters of the State and to ensure the Back River WWTP is operated in a manner that will protect public health and comfort, the Secretary Grumbles ordered Baltimore City on March 24, 2022, to operate the Back River WWTP in compliance with all terms of the Back River Discharge Permit, including, but not limited to, providing an adequate number of operating staff that are qualified to carry out the operations, maintenance, and testing functions required to ensure compliance with the Back River Discharge Permit, and to cease all unpermitted discharges from the Back River WWTP. The Secretary further ordered Baltimore City to make all necessary and appropriate alterations to the Back River WWTP and its operations in order to comply with the March 24, 2022, order, and within 48 hours of service of the order, to submit to the Department sufficient documentary evidence that the Back River WWTP is operating in compliance with all terms of the Back River Discharge Permit and that it has ceased all unpermitted discharges.
- 13. On March 26, 2022, more than 48 hours after service of the March 24, 2022, order, the Department conducted a follow-up inspection of the Back River WWTP. The Department documented that the corrective actions identified in the March 22, 2022, inspection have not been completed, and extensive violations of General and Special Conditions contained in the Back River Discharge Permit continue unabated.

14. As of the date of this Directive, Baltimore City has failed to comply with the March 24, 2022, order and to operate the Back River WWTP in compliance with all terms of the Back River Discharge Permit and cease all unpermitted discharges from the Back River WWTP.

DIRECTIVE TO THE SERVICE

- 15. Pursuant to § 3-109(c) and § 3-109(d) of the Natural Resource Article, the Secretary hereby DIRECTS that the Service take charge of the Back River WWTP, including its operations, maintenance, and improvements functions, in order to work with Baltimore City to ensure that Baltimore City meets the following objectives: protecting public and environmental health; abating any further nuisance; providing appropriate levels of qualified staff; conducting appropriate maintenance, improvements, and modifications; operating the Back River WWTP in compliance with all terms of the Back River Discharge Permit; and ceasing all unpermitted discharges from the Back River WWTP. ² The Service shall work with Baltimore City to the extent it deems practicable, but in any event, shall achieve the aforementioned objectives with the means and methods the Service, in its discretion, deems most effective and efficient. Specifically, the Service shall take actions to ensure that the Back River WWTP is operated in compliance with all terms of the Back River Discharge Permit and cease all unpermitted discharges from the Back River WWTP, which shall include:
 - Immediately commencing action to correct the deficiencies identified in Paragraph 10.a. through g. of this Directive;

² Nothing in this Directive imposes liability on the Service under Title 9, subtitle 3 for violations of the Back River Discharge Permit.

- b. Immediately begin assessing the adequacy of both the number and qualifications of Plant staff in order to provide a recommendation to Baltimore City and the Department on the adequate number of qualified operating staff that are necessary to carry out the operations, maintenance, and testing functions required to ensure compliance with the Back River Discharge Permit; and
- c. Identifying and implementing all necessary and appropriate alterations to the Back River WWTP and its operations and maintenance, including, if necessary, the retaining of additional workers to temporarily supplement staffing at the Back River WWTP.
- 16. The Secretary further DIRECTS the Service to undertake a comprehensive evaluation and assessment of the Back River WWTP's operation, maintenance, staffing, and equipment and, by June 6, 2022, to submit a report to the Department of the Service's findings and recommendations, including a comprehensive list of needed improvements, ranked by their impact on compliance with discharge permit effluent limitations.
- 17. The Secretary further DIRECTS the Service to abide by any amendments or modifications to this Directive issued by the Secretary of Environment if the Secretary believes any such amendment or modification is necessary to protect human and environmental health.
- 18. The Secretary further DIRECTS the Service to seek recoupment as referenced in § 3-109 of the Natural Resources Article and may record and index one or more liens against Baltimore City, and any other responsible parties, assigns, owners, or operators.

	19.	The Secretary further DIRECTS the Service t	to complete	e all tasks in this Directive	
until 1	until the Secretary notifies the Service that this Directive is terminated.				
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	Dania		Date	March 27, 2022	
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