



SUSQUEHANNA RIVER BASIN COMMISSION

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Docket No. 20100909

Approval Date: September 16, 2010

NEW MORGAN LANDFILL COMPANY, INC. dba CONESTOGA LANDFILL

Groundwater Withdrawal (30-Day Average) of 0.003 mgd from the Maintenance Shop Well, and Surface Water Withdrawal (Peak Day) of up to 0.249 mgd, When Available, from the Quarry Pond, for Landfill Operations, New Morgan Borough, Berks County, Pennsylvania

Review Authority

This project is subject to review pursuant to Article 3, Section 3.10, of the Susquehanna River Basin Compact (Compact), P.L. 91-575, 84 Stat. 1509 et seq., and Susquehanna River Basin Commission (Commission) Regulation 18 CFR §806.4, relating to projects requiring review and approval. The Commission received the groundwater and surface water withdrawal applications on December 13, 2007, with additional information received on August 16, 2010 and September 14, 2010.

Description

Purpose. The purpose of the application is to request approval for the existing groundwater withdrawal and existing surface water withdrawal for landfill operations.

Location. The project is located in the Lower Susquehanna Subbasin, WBD 0205030611, Conestoga River Watershed, New Morgan Borough, Berks County, Pennsylvania. The project is located in an area that has been identified as a Water Challenged Area (Commission's Groundwater Management Plan – Diabase).

Project Features. The project sponsor has requested approval of a groundwater withdrawal (30-day average) of 0.003 million gallons per day (mgd) from the Maintenance Shop Well and a surface water withdrawal of up to 0.249 mgd (peak day) from the Quarry Pond at the Conestoga Landfill in New Morgan Borough, Berks County, Pennsylvania. The withdrawals will be consumptively used for operations at the Conestoga Landfill.

The Commission originally approved the project on December 5, 2006, as Commission Docket No. 20061206, for consumptive water use of up to 0.085 mgd for landfill operations. The Docket approval predated January 1, 2007, the effective date of Commission Regulation 18 CFR §806.4(a)(1), where any project that involves consumptive use of water from a surface water or groundwater withdrawal source also shall be subject to the standards set forth in Commission Regulation 18 CFR §806.23 (Standards for Water Withdrawals). Therefore,

sources for the project's consumptive water use previously did not require approval under Commission regulations. On June 11, 2010, the Commission approved the project sponsor's request to increase its consumptive water use up to 0.350 mgd, as Commission Docket No. 20061206-1. As such, all sources to the project's consumptive water use became subject to review under Commission Regulation 18 CFR §806.4(a)(2)(ii).

The landfill site is comprised of two main waste disposal areas: Disposal Area One and the Expansion Area. The Disposal Area One is currently only used for limited waste disposal and only four (Cells 11, 12, 13, and 14) of the fourteen cells are active and currently accepting waste. The Expansion Area design includes twelve additional waste disposal cells that are being constructed on an as-needed basis. The project sponsor is currently operating four active waste cells in the Expansion Area (Cells 15, 16, 17, and 19). The remaining cells are anticipated to be constructed over the next 10 years, with final waste disposal occurring approximately 2 years following completion of the last cell.

The withdrawal locations are specified in the applications and have been reviewed for sensitive habitats and threatened and endangered species.

Groundwater Supply Wells. The project sponsor currently utilizes withdrawals from the Maintenance Shop Well and the Administration Office Well for landfill operations.

Water withdrawn from the Maintenance Shop Well is used to fill a 10,000-gallon storage tank for the truck wash. The project sponsor maintains a maintenance log for the truck wash water use and the reported peak day use is approximately 1,000 gallons per day.

The Administration Office Well provides water supply for sanitary purposes and the withdrawal (30-day average) is less than 0.001 mgd. Pennsylvania Department of Environmental Protection (PADEP) originally permitted the Administration Office Well as a Noncommunity Water Supply (PADEP Public Water Supply ID No. 3061057).

Surface Water Supply. The project sponsor currently utilizes a withdrawal from the Quarry Pond for landfill operations.

The Quarry Pond is located in the drainage basin of Back Creek and was formed from subsidence of an abandoned iron-ore subsurface mine (Grace Mine), which was formerly owned and operated by Bethlehem Steel. A mine tailings dam was intentionally constructed along the downgradient edge of the Quarry Pond to create a surface outflow barrier. A subsurface culvert pipe (42-inch-diameter corrugated metal pipe) was installed in the tailing dam to allow a consistent outflow from the Quarry Pond that drains into an open channel before emptying into the Mill Pond Reservoir.

The existing withdrawal location is located near the inlet of the outflow pipe at the southeast bank of the Quarry Pond. Water is withdrawn from the Quarry Pond and conveyed by a 5,000-gallon tanker truck to the landfill and used for dust suppression and odor control. All of the water withdrawn from the Quarry Pond is consumptively used. The Quarry Pond withdrawal is not metered; however, the project sponsor maintains a log of the daily number of truckloads of water withdrawn. The anticipated peak day demand for water withdrawal from the Quarry Pond is approximately 0.249 mgd.

Leachate Collection System. The Water Management Permit issued by PADEP in 1998 authorizes the project sponsor to operate an on-site leachate collection and treatment system. The wastewater treatment system is comprised of two 1,000,000-gallon raw leachate storage tanks, a reverse osmosis treatment facility, and a 250,000-gallon treated leachate storage tank. Two collection sumps within Disposal Area One and two sumps in the Expansion Area intercept leachate generated from rainwater and water that was trapped in waste within various active waste management areas. The collected leachate is conveyed from the collection sumps to one of the two raw leachate storage tanks. The raw leachate is metered and either treated on-site or is transported off-site for treatment and disposal. The project sponsor maintains a log of the daily number of truckloads of raw leachate leaving the landfill for treatment and disposal.

The leachate that is treated on-site is transferred (on-demand) to the treatment facility where it undergoes treatment through a commercial reverse osmosis filtration system. The total daily quantity of leachate treated is generally dependent on duration and intensity of precipitation received at the landfill. However, the leachate treatment facility was designed and permitted for a maximum flow through treatment capacity of 0.050 mgd.

The treated leachate can be reintroduced into the waste mass, used to supplement the demand for withdrawals from the Maintenance Shop Well and the Quarry Pond, or discharged to Back Creek at an outfall under the National Pollutant Discharge Elimination System (NPDES) permit (NPDES Permit No. 0055328). According to the NPDES permit, the project's maximum discharge rate at the outfall from the leachate treatment system is 0.050 mgd.

Aquifer Testing. The project sponsor requested that the constant-rate aquifer testing required by Commission Regulation 18 CFR §806.12 for groundwater withdrawals be waived.

In support of its request for a waiver, the project sponsor has submitted data collected from numerous on-site wells, which have been routinely tested for PADEP permitting and legal activities. In addition, the project sponsor has collected extensive water level and analytical data for all its monitoring wells. These data are used to create chemical distribution maps and groundwater elevation contour maps, which are summarized in a report and annually submitted to PADEP.

Based on a review of the hydrogeologic setting and historical operational data, Commission staff determined that the withdrawal from the Maintenance Shop Well, at the requested withdrawal rate, should not cause permanent loss of aquifer storage, render competing supplies unreliable, or cause adverse impacts to the water resources of the basin. Commission staff recommends approval of the waiver.

Coordination. Commission staff has coordinated with PADEP Bureau of Land Recycling and Waste Management during review of the project. PADEP staff has reviewed this docket for consistency with its permits and regulations.

Findings

The project is subject to Commission approval, monitoring, and reporting requirements, as per Commission Regulations 18 CFR §806.4, §806.23, and §806.30.

The project sponsor currently utilizes groundwater withdrawals from the Administration Office Well and the Maintenance Shop Well for landfill operations. The Administration Office Well is not metered; however, the withdrawal (30-day average) is less than 0.001 mgd and limited to sanitary purposes. The project sponsor currently meters the Maintenance Shop Well and has requested approval of the withdrawal (30-day average) of 0.003 mgd. Commission staff is recommending approval of the requested amount of 0.003 mgd from the Maintenance Shop Well. Commission staff also recommends that the project sponsor continue to meter and monitor the groundwater withdrawal from the Maintenance Shop Well on a daily basis, as required by Commission Regulation 18 CFR §806.30.

The project sponsor requested a waiver of Commission Regulation 18 CFR §806.12, regarding the constant-rate aquifer testing requirement for the groundwater withdrawal from the Maintenance Shop Well. Commission staff recommends waiving the requirement for aquifer testing for the withdrawals from the Maintenance Shop Well.

Leachate collection sumps are used for the collection of rainwater and water that was trapped in waste within various active and closed waste cells. The leachate conveyed from the collection sumps is metered at the raw leachate storage tanks. The collected raw leachate is either treated on-site or is transported off-site for treatment and disposal. Treated leachate can be reintroduced into the waste mass, used to supplement the demand for withdrawals from the Maintenance Shop Well and the Quarry Pond, or discharged to Back Creek. Commission staff recommends that the project sponsor continue to meter the volume of leachate collected from the landfill cells and maintain a log of the daily number of truckloads of raw leachate leaving the landfill for treatment and disposal. Commission staff also recommends that the project sponsor maintain a log of the daily number of truckloads of treated leachate that are used for landfill operations and meter the volume of treated leachate that is discharged to Back Creek. Any alternative monitoring or accounting procedure requested by the project sponsor will be reviewed by Commission staff.

The project sponsor currently utilizes a withdrawal from the Quarry Pond (located on the Back Creek Watershed) to supply water for landfill operations. Back Creek is classified as a Warm Water Fishery (WWF) (Title 25, Chapter 93, Pennsylvania Code). The Quarry Pond has a surface area of approximately 25 acres and the area of the topographical drainage basin to the proposed point of taking is approximately 2 square miles. The headwaters of Back Creek contribute to the surface water inflow to the Quarry Pond; however, due to the depth and size of the former underground Grace Mine, the storage potential in the Quarry Pond is primarily influenced by groundwater recharge. Commission staff has calculated the lowest average flow that occurs for 7 consecutive days once every 10 years (Q7-10) for Back Creek at the point of taking to be 0.357 cubic feet per second (cfs) or 160 gpm, and the average daily flow to be 2.99 cfs or 1,342 gpm.

Commission staff recommends approval of the requested maximum instantaneous rate of withdrawal of 1,000 gpm. The project sponsor should limit the instantaneous pumping rate by a flow-limiting valve, orifice plate, or by pump capacity. The requested rate of withdrawal is greater than 10 percent of Q7-10 at the proposed intake location, thereby requiring a passby flow for the protection of aquatic resources and downstream users. Commission staff recommends that the project sponsor allow for a passby flow of not less than 20 percent of the average daily flow of Back Creek at the point of taking for the protection of aquatic resources and downstream users.

Commission staff recommends that the project sponsor install a passby flow measurement device that will allow the measurement of flow at all times during active pumping. During operation of the surface water withdrawal, the project sponsor must maintain the passby system, keeping it free of debris and fully functional. The Commission reserves the right to inspect the passby flow measurement device at any time. The project sponsor should submit its proposed plan for the passby flow measurement device within 60 days following Commission action for review by Commission staff and prior to any construction. The project sponsor may propose alternative flow monitoring to the Commission for staff review and approval.

Commission staff recommends the project sponsor submit a surface water intake design for Commission staff review and approval. All withdrawal equipment, such as piping and screens, should be engineered in a fashion that will not allow the physical withdrawal rate to exceed the approved maximum instantaneous withdrawal rate. The intake structure and withdrawal velocity should be designed to avoid potential aquatic impacts associated with impingement and entrainment. The intake should be structurally supported to prevent possible sagging or collapse of the screen. The intake structure should include a debris barrier. The project sponsor should ensure that the intake structure is regularly maintained free of debris. The intake structure should be dedicated to the approved location and should be tamper-resistant and semi-permanent. The Commission reserves the right to inspect the intake structure at any time.

Due to the planned landfill expansion work, the peak daily withdrawal demand from the Quarry Pond will be dependent on the duration and extent of the construction activities at the landfill. The project sponsor anticipates that the peak day and 30-day average demands should not exceed 0.249 mgd and 0.100 mgd, respectively. Therefore, the project sponsor requested a peak day withdrawal of up to 0.249 mgd and a 30-day average withdrawal of 0.100 mgd. Commission staff recommends approval of up to 0.249 mgd, when available, and a 30-day average withdrawal of 0.100 mgd.

The project sponsor should record the daily quantity of water withdrawn from the Quarry Pond and electronically submit the required monitoring data to the Commission quarterly, as specified in Commission Regulation 18 CFR §806.30(b)(1).

The project sponsor has filed a copy of its land use agreement certifying to the Commission that it has been granted access by the property owner to the proposed withdrawal location. The project sponsor should maintain the access agreement throughout the duration of this approval.

The project sponsor currently maintains a log of the daily number of truckloads of water withdrawn from the leachate treatment system for off-site disposal, and withdrawn from the

Quarry Pond for dust suppression, odor control, and irrigation. Commission staff recommends that the volume of the water trucks and number of truckloads of water withdrawn from the leachate treatment system and the Quarry Pond be recorded on a daily basis.

Should the proposed accounting procedure fail to accurately measure the project's total withdrawals, the Commission reserves the right to modify the metering, monitoring, and accounting procedures. Commission staff will provide the project sponsor with written notice of any required change in the metering, monitoring, and accounting procedures. Any alternative monitoring or accounting procedure requested by the project sponsor will be reviewed by Commission staff.

The project is subject to the Commission's water conservation requirements, as per Commission Regulation 18 CFR §806.25(b).

The project sponsor has paid the appropriate application fee, in accordance with Commission Regulation 18 CFR §806.13, and in accordance with Commission Resolution No. 2006-08. The project sponsor has provided all proofs of notification, as required by Commission Regulation 18 CFR §806.15.

Subject to compliance with the terms and conditions of this docket, no adverse impacts to area surface water or groundwater withdrawals are anticipated. The project is physically feasible, does not conflict with or adversely affect the Commission's Comprehensive Plan, and does not adversely influence the present or future use and development of the water resources of the basin.

Decision

1. The project's groundwater withdrawal (30-day average) of 0.003 mgd from the Maintenance Shop Well and surface water withdrawal (peak day) of up to 0.249 mgd from the Quarry Pond at the location specified in the application is approved pursuant to Article 3, Section 3.10, of the Compact.

2. The foregoing findings are hereby adopted and shall be incorporated into and made a part of this decision.

3. The project sponsor shall comply with all Commission regulations, including monitoring and reporting requirements contained in Commission Regulation 18 CFR §806.30.

4. The constant-rate aquifer testing requirements for the Maintenance Shop Well, according to Commission Regulation 18 CFR §806.12, are hereby waived.

5. The maximum instantaneous rate of withdrawal from the Maintenance Shop Well shall not exceed 12 gpm.

6. The project sponsor shall keep daily records of the project's groundwater withdrawals from the Maintenance Shop Well and shall report the data to the Commission quarterly, and as

otherwise required. Quarterly monitoring reports shall be submitted on-line and are due within thirty (30) days after the close of the preceding quarter.

7. Within sixty (60) days from the date of this approval, the project sponsor shall certify to the Commission that the Quarry Pond intake and pump complies with Commission staff approved plans and protocols.

8. The project sponsor shall keep daily records of the project's surface water withdrawal and shall report the data to the Commission quarterly, and as otherwise required. Quarterly monitoring reports shall be submitted on-line and are due within thirty (30) days after the close of the preceding quarter. Any alternative measuring, monitoring, or accounting procedure requested by the project sponsor shall be reviewed by Commission staff.

9. The maximum instantaneous rate of withdrawal at the surface water intake shall not exceed 1,000 gpm.

10. The project sponsor shall allow a flow to pass directly from the Quarry Pond of not less than twenty (20) percent of the average daily flow of Back Creek at the point of taking. When the flow is equal to or less than twenty (20) percent of the average daily flow, no water may be withdrawn, and the entire flow shall be allowed to pass the intake to allow such flow in the channel below the intake as may prevail above. The passby system shall be kept fully functional and free of debris. The Commission reserves the right to inspect the passby flow device and intake structure at any time.

11. The project sponsor shall submit its proposed plan for maintaining compliance with the passby requirement using a passby flow measurement device within sixty (60) days of the date of this approval for review and approval by Commission staff. Following approval, the project sponsor shall complete construction in accordance with the approved schedule and certify to the Commission, in writing and with digital photographs, that the construction has been completed in accordance with the approved design. The project sponsor may propose an alternative to a passby flow measurement device to the Commission for staff review and approval.

12. The project sponsor shall maintain the land use agreement for the withdrawal location for the duration of the approval. The project sponsor shall notify the Commission within thirty (30) days of termination of the land use agreement.

13. The project sponsor shall maintain the totalizing meter and other measuring devices, accurate to within five (5) percent, so as to provide an accurate record of withdrawals and uses, and certify to the Commission once every five (5) years, or as otherwise requested, the accuracy of all measuring devices and methods to within five (5) percent of actual flow.

14. The project sponsor shall comply with the water conservation requirements specified in Commission Regulation 18 CFR §806.25(b).

15. To satisfy the Commission's registration requirement, the project sponsor shall register with the PADEP all surface water and groundwater sources described in this docket in accordance with 25 PA Code Chapter 110, subchapter B, Section 110.201.

16. Pursuant to Article 12, Section 12.2, of the Compact, this project is hereby approved for inclusion in the Commission's Comprehensive Plan for the Water Resources of the Susquehanna River Basin.

17. Commission approval shall not be construed to exempt the project sponsor from obtaining all necessary permits and/or approvals required for the project from other federal, state, or local government agencies having jurisdiction over the project. The Commission reserves the right to modify, suspend, or revoke this action if the project sponsor fails to obtain or maintain such approvals.

18. If the project sponsor fails to comply with the provisions of the Compact or any rule, regulation, or order of the Commission, or any term or condition of this docket, the project is subject to enforcement actions pursuant to Commission Regulation 18 CFR §808.

19. The Commission reserves the right to reopen any project docket or issue such additional orders, as may be necessary, to mitigate or avoid adverse impacts or otherwise to protect public health, safety, welfare, or water resources. The Commission, upon its own motion, may at any time reopen any project approval and make additional corrective modifications that may be necessary.


20. Commission approval confers no property rights upon the project sponsor. The securing of all rights necessary and incident to the project sponsor's development and operation of the project shall be the sole and exclusive responsibility of the project sponsor, and this approval shall be subject thereto.

21. This approval is effective until September 15, 2025. As specified in Commission Regulation 18 CFR §806.31(e), the project sponsor shall submit an application by March 15, 2025, and obtain Commission approval prior to continuing operation beyond September 15, 2025.

22. If the project is discontinued for such a period of time and under such circumstances that an abandonment of the project may reasonably be inferred, the Commission may rescind the approval of the project unless a renewal is requested by the project sponsor and approved by the Commission.

CERTIFICATION: I, Stephanie L. Richardson, Secretary to the Susquehanna River Basin Commission, do hereby certify that the foregoing project docket was approved by the Susquehanna River Basin Commission on September 16, 2010.

Dated: September 17, 2010


Stephanie L. Richardson