

**DOCKET NO. D-2000-033-3**

**DELAWARE RIVER BASIN COMMISSION**

**Located in Drainage Area to Special Protection Waters**

**Crayola, LLC  
Groundwater Withdrawal and Discharge  
Forks Township, Northampton County, Pennsylvania**

**PROCEEDINGS**

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) on May 6, 2022 for renewal of an allocation of groundwater withdrawal and discharge project and review of a groundwater withdrawal and discharge project (Application).

The Application was reviewed for continued approval under Section 3.8 of the *Delaware River Basin Compact*. The Lehigh Valley Planning Commission has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on November 9, 2022.

**A. DESCRIPTION**

**1. Purpose.** The purpose of this project is to renew the approval of an existing groundwater withdrawal of up to 16.53 million gallons per month (mgm) from Wells 1 and 4 and to re-inject non-contact cooling water into Well 2. The withdrawal supports irrigation and replenishment of an on-site landscape pond and industrial processes through non-contact geothermal cooling.

**2. Location.** The project wells are completed in the Jacksonburg Limestone Formation and are located in the Bushkill Creek Watershed in Forks Township, Northampton County, Pennsylvania. The Bushkill Creek near the project site is designated by the Pennsylvania Department of Environmental Protection (PADEP) as supporting High-Quality supporting Cold Water Fishes (HQ-CWF).

Specific location information has been withheld for security reasons.

**3. Area Served.** The project wells serve water to the docket holder's manufacturing facility only. The area served area is outlined on a map entitled "Site Location Map" submitted with the Application. For the purpose of defining Area Served, the Application is incorporated herein by reference consistent with conditions contained in Section C. DECISION of this docket.

**4. Design Criteria.** The Crayola Forks I and Forks II plants, which comprise the Crayola Facility are used to produce Crayola products. Groundwater withdrawals from Well 4 are used for non-contact geothermal cooling. Non-contact cooling water is returned to the aquifer using Well 2. Well 1 was used for withdrawals for non-contact cooling water but was replaced by Well 4 in 1989. Well 1 currently serves as a back-up well for non-contact cooling water and as a source of water for landscape irrigation and replenishment of the on-site landscape pond.

The docket holder's facility has an average and maximum water demand of 0.450 million gallons per day (mgd) and 0.513 mgd, respectively. The docket holder does not project an increase in water use over the next 10 years. Of the existing average water use, approximately 97 percent is used for industrial non-contact geothermal cooling water and 3 percent is used for irrigation of the facility grounds and maintaining the on-site landscape pond level. The allocation of 16.53 mgm should be sufficient to meet the future demands of the docket holder's facility.

Sanitary and process water for the office building and manufacturing facility is supplied by the Easton Suburban Water Authority water distribution system approved by DRBC Docket No. D-1999-062 CP-2 on September 14, 2016. The average bulk water purchase is 0.0413 mgd.

**5. Facilities.** The existing project wells have the following characteristics:

WELL NO.	DEPTH (FEET)	CASED DEPTH/ CASING DIAMETER	PUMP CAPACITY (GPM)	YEAR DRILLED
1 (withdrawal)	300	160' / 10"	350	1976
2 (injection)	227	42' / 10" 89' / 8"	N/A	1976
4 (withdrawal)	186	140' / 10"	350	1989

All wells are metered.

The project wellheads are above the 100-year flood elevation.

Withdrawn water is not treated prior to entering the facilities. Non-contact geothermal cooling water is not treated prior to re-injection and is returned to the aquifer undiminished in quality.

**6. Other.** Non-contact industrial cooling water supplied by Wells 1 and 4, is returned to the groundwater via injection Well 2, with no significant changes to quantity or quality. Domestic and process wastewater is conveyed to the Easton Area Joint Sewer Authority sewage treatment facility most recently approved by DRBC Docket No. D-1987-010 CP-4 on September 9, 2021. Treatment facility is approved by PADEP NPDES Permit No. PA0027235. The treatment facility has adequate capacity to receive wastewater from this project.

## **B. FINDINGS**

### **1. Special Protection Waters**

In 1992, the DRBC amended its *Water Quality Regulations (WQR)* by the addition of regulations for the protection of Special Protection Waters (SPW), designed to maintain the quality of interstate waters where existing quality is better than the established stream quality objectives. As the result of its initial classifications and subsequent amendments, the Commission has designated the entire non-tidal main stem Delaware River from Hancock, New York to Trenton, New Jersey as SPW. DRBC's SPW regulations apply within the designated reaches and their drainage area.

The wells providing water supply to the docket holder are located within the drainage area to SPW. Sections 3.10.3A.2.e.1) and 2) of the *WQR* state that projects subject to review under Section 3.8 of the *Compact* that are located within the drainage area of SPW must submit for approval a Non-Point Source Pollution Control Plan (NPSPCP) that controls the new or increased non-point source loads generated within the portion of the docket holder's service area which is also located within the drainage area of SPW. Since this project involves the renewal of an approval for existing activities and does not entail additional construction or expansion of facilities or create new or increased non-point source loads, the NPSPCP requirement is not applicable at this time.

### **2. Geothermal Cooling**

This project consists of an existing withdrawal and re-injection of groundwater for the purpose of non-contact geothermal cooling. While the geothermal system is non-contact cooling water, the system is "open-loop" in that; water used for cooling is withdrawn from Wells 1 and 4 and discharged to Well 2.

The United States Environmental Protection Agency (US EPA) classifies this type of well as a Class V Underground Injection Well. The project was permitted by the US EPA Region III in Underground Injection Control (UIC) Permit No. PAS5A191BNOR issued on March 1, 1991. This permit expired March 1, 2001; however, under the EPA UIC Regulations, all Class V injection wells, with the exception of large capacity cesspools and motor vehicle waste disposal wells that are specifically addressed by the Class V Rule, are "authorized by rule" (40 CFR 144.24). This means they are allowed to inject if they comply with the UIC program requirements. The most important of these requirements is that Class V wells are not allowed to endanger drinking water aquifers. Non-endangerment means that injection operations must not allow fluid containing any contaminants to move into USDWs where the presence of the contaminants may cause violations of primary drinking water regulations or adversely affect public health (40 CFR 144.12). These program requirements include: 1) submitting basic information about Class V injection wells to EPA or the state primacy agency, and 2) constructing, operating, and closing Class V injection wells in a manner which protects underground sources of drinking water. EPA or a state primacy agency may ask for additional information or require a permit in order to ensure that ground water quality is adequately protected.

As a condition of the docket holder's authorization by rule, the docket holder performs annual analytical testing of the groundwater aquifer to which return water is injected, keeps daily withdrawal and injection records, performs monthly inspections of the facility, and reports withdrawals and discharges annually.

This project consists of an existing withdrawal of groundwater from Wells 1 and 4. The docket holder has requested allocations for existing Wells 1 and 4 based on existing water use. These rates are provided in Decision Condition C.4. in the Decision Section of this docket. As the existing water withdrawals have already been realized by the local hydrologic system, there should be no significant impacts from continued withdrawals from the existing system wells.

### **3. Other Findings**

The docket holder estimates that the project withdrawals, used for the purpose of non-contact geothermal cooling, result in a consumptive use of less than 1% percent of the total water used for non-contact geothermal cooling. The DRBC estimates that the project withdrawals, used for the purpose of irrigation and pond replenishment result in a consumptive use of 90% percent of the total water used for irrigation and pond replenishment. The DRBC definition of consumptive use is defined in Basin Regulations-Water Supply Charges 18 C.F.R. 420.1(d).

The project is designed to conform to the requirements of the *Water Code (WC)* and *Water Quality Regulations* of the DRBC.

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

## **C. DECISION**

Effective on the approval date for Docket No. D-2000-033-3 below, Docket No. D-2000-033-2 is terminated and replaced by Docket No. D-2000-033-3. The project and appurtenant facilities as described in in Section A.4. (Design Criteria) and A.5. (Facilities) are approved subject to the following conditions, pursuant to Section 3.8 of the *Compact*:

### **Monitoring and Reporting**

1. The docket holder shall continue to report to the PADEP all surface and groundwater sources described in this docket in accordance with the Pennsylvania Regulations (Title 25 - Environmental Protection, [25 PA. CODE CH. 110], Water Resources Planning).

2. The project withdrawals shall be metered by means of an automatic continuous recording device, flow meter, or other method, and shall be measured to within 5 percent of actual flow. Meters or other methods of measurement shall be subject to approval and inspection by the PADEP as to the type, method, installation, maintenance, calibration, reading and accuracy. A record of daily withdrawals shall be maintained, and monthly totals shall be reported to the PADEP annually and shall be available at any time to the Commission if requested by the Executive Director.

3. The docket holder shall implement to the satisfaction of the PADEP, a continuous program to encourage water conservation in all types of use within the facilities served by this docket approval. The docket holder will report to the PADEP, on the actions taken pursuant to this program and the impact of those actions as requested by the PADEP.

### **Other Conditions**

4. During any month, the combined withdrawal from all well sources shall not exceed 16.53 million gallons. No well shall be pumped above the maximum rate and monthly allocation as indicated below:

<b>WELL NO.</b>	<b>MAXIMUM RATE (GPM)*</b>	<b>MONTHLY ALLOCATION (MGM)</b>
1 (withdrawal)	350	15.624
2 (injection)	---	---
4 (withdrawal)	350	15.624

\* Based on a 24-Hour Average

5. Section 2.3.10 of the Commission's Rules of Practice and Procedure (18 C.F.R. 401.41), limiting the Commission's approval to three years in the absence of an expenditure of substantial funds by the project sponsor in reliance on the approval, is hereby waived for good cause shown in accordance with Section 2.9.3 (18 C.F.R. 401.123) of the same regulations. This approval shall expire on the expiration date set forth below unless prior thereto the docket holder has applied to the Commission to renew or extend this approval.

6. The docket holder is responsible for timely submittal to the DRBC of a docket renewal application on the appropriate application form including the appropriate docket application filing fee (see 18 C.F.R. 401.43) at least 6 months in advance of the docket expiration date set forth below. The docket holder will be subject to late filed renewal surcharges in the event of untimely submittal of its renewal application, whether or not DRBC issues a reminder notice in advance of the deadline or the docket holder receives such notice. If a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below, the terms and conditions of the current docket will remain fully effective and enforceable pending the grant or denial of the application for docket approval.

7. The wells and operational records shall be available at all times for inspection by the DRBC.

8. The wells shall be operated at all times to comply with the requirements of the *WC* and *WQR* of the DRBC.

9. The wells shall be equipped with readily accessible capped ports and minimum ½ inch inner diameter (ID) drop pipes so that water levels may be measured under all conditions. Existing wells are to be similarly equipped, where possible, with readily accessible ports and ½ inch ID drop pipes as repairs or modifications are made at each existing well.

10. Each new water service connection shall include a water meter in accordance with the DRBC's Resolution No. 87-7 (Revised).

11. No water service connections shall be made to newly constructed premises with plumbing fixtures and fittings that do not comply with water conservation performance standards contained in Resolution No. 88-2 (Revision 2).

12. The docket holder shall implement to the satisfaction of the PADEP, a drought or other water supply emergency plan.

13. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

14. The docket holder is permitted to provide the water approved in this docket to the areas included in Section A.3. Area Served of this docket. Any expansion beyond those included in Section A.3. Area Served is subject to DRBC review and approval in accordance with Section 3.8 of the *Compact*.

15. The docket holder shall be subject to applicable DRBC regulatory program fees, in accordance with duly adopted DRBC resolutions and/or regulations. (see 18 C.F.R. 401.43).

16. This approval is transferable by request to the DRBC Executive Director provided that the project purpose and area served approved by the Commission in this docket will not be materially altered because of the change in project ownership. The request shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 C.F.R. 401.43).

17. The docket holder shall request a name change of the entity to which this approval is issued if the name of the entity to which this approval is issued changes its name. The request for name change shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 C.F.R. 401.43).

18. The issuance of this docket approval shall not create any private or proprietary rights in the water of the Basin, and the Commission reserves the rights to amend, alter or rescind any actions taken hereunder to ensure the proper control, use and management of the water resources of the Basin.

19. If the monitoring required herein or any other relevant data or information demonstrates that the operation of this project is interfering with or otherwise impairing existing uses of ground or surface water, or if the docket holder receives a complaint from an existing ground or surface water user within the zone of influence of the withdrawal alleging such interference or impairment, the permit holder shall immediately notify the Executive Director, and unless excused by the Executive Director, shall investigate the demonstrated or alleged impacts. For purposes of this condition, notification shall mean either (a) electronic transmittal of written notice to the Executive Director via email (using addresses posted on the DRBC website); or (b) written notice to the Executive Director and a telephone call to the Project Review Section at 609-883-9500, ext. 216. (Oral notification must always be accompanied by immediate written notification directed to the Executive Director.) In addition, the docket holder shall provide written notice to all potentially affected water users of the docket holder's responsibilities under this condition. **Any well or surface water supply that is impaired as a result of the docket holder's project withdrawal shall be repaired, replaced or mitigated at the docket holder's expense.** The scope of the options to consider for repair, replacement and/or mitigation shall not be limited solely to those that are owned, operated, or controlled by the project sponsor. An investigation report and/or mitigation plan prepared and certified by a licensed professional engineer and/or a licensed professional geologist shall be submitted to the Executive Director as soon as practicable following notice of the demonstrated or alleged impairment consistent with this paragraph. The Executive Director shall make the final determination regarding the scope and sufficiency of the investigation and the extent of any mitigation measures that may be required. Where ground and surface waters are rendered unavailable, unusable, or unsuitable for the pre-existing use, the Executive Director may direct the docket holder to take interim actions to mitigate such impacts, pending completion of the investigative report and any long-term repair, replacement or mitigation.

**20.** The Executive Director may modify or suspend this approval or any condition thereof, or require mitigating measures pending additional review, if in the Executive Director's judgment such modification or suspension is required to protect the water resources of the Basin.

**21.** Any person who objects to a docket decision by the Commission may request a hearing in accordance with Article 6 of the *Rules of Practice and Procedure*. In accordance with Section 15.1(p) of the *Delaware River Basin Compact*, cases and controversies arising under the *Compact* are reviewable in the United States district courts.

**BY THE COMMISSION**

**APPROVAL DATE: December 7, 2022**

**EXPIRATION DATE: December 7, 2032**