



# SUSQUEHANNA RIVER BASIN COMMISSION

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**Application 19980702**

## MUNICIPAL AUTHORITY OF THE BOROUGH OF BERLIN

Ground-Water Withdrawal (30-Day Average) of 0.44 MGD from Wells No. 9 and 10, and a Total System Withdrawal Limit (30-Day Average) of 0.498 MGD and the Out-of-Basin Diversion of Up to 0.498 MGD for Public Water Supply, Allegheny Township, Somerset County, Pennsylvania

### Review Authority

The application was reviewed by Commission staff pursuant to Article 3, Section 3.10 of the Susquehanna River Basin Compact, P.L. 91-575, Commission Regulation 803.42 relating to the diversion of water from the basin, and Commission Regulation 803.43 relating to ground-water withdrawals. The applications were received by the Commission on February 20, 1998. The applicant submitted additional information concerning its historic water use on April 10 and June 5, 1998.

### Description

**Purpose.** The purpose of the applications is to request approval for the withdrawal of ground water for distribution in a public water supply system and the out-of-basin diversion of water as sewage effluent.

**Location.** The project is located in Allegheny Township, Somerset County, Pennsylvania.

**Project Features.** The applicant has requested approval for the withdrawal of 0.22 million gallons per day (MGD) from existing Well No. 9 and 0.22 MGD from Well No. 10. The applicant also operates (or operated) Wells No. 6 and 7 in the Susquehanna River Basin, which were in use prior to the effective date of the Commission's January 23, 1971 regulation regarding out-of-basin diversions and the July 13, 1978 ground-water regulation. Well No. 7 has been abandoned.

The applicant also uses two wells and four springs in the Ohio River Basin.

Wells No. 9 and 10 penetrate shales and sandstones of the Mauch Chunk Formation in the headwaters of the Raystown Branch Juniata River. Well construction information is given in Table 1.

**Table 1. Well Construction Information**

Well No.	Depth Drilled (ft)	Well Diameter (in.)	Casing Length (ft)	Requested Yield (gpm)
9	224	8	120	200
10	347	8	84	200

The project supplies water to the Borough of Berlin, the Village of McDonaldton and the Township of Brothersvalley. Ninety-five percent of the water provided to the distribution service area is treated at the Berlin Borough Wastewater Treatment Facility and is discharged to Buffalo Creek, which is located in the Ohio River Basin. The applicant began diverting water to the Ohio River Basin prior to the Commission's existence.

**Pumping Test.** Well No. 10 was tested at an average rate of 0.22 MGD for 72 hours in October and November 1995. During the test, water levels were monitored in the production well, Borough Wells No. 6 and 9, and a domestic well located near the well field. The applicant requested a waiver from the Commission 48-hour test requirements for Well No. 9. This well was drilled in 1973 and was tested at variable rates in 1978 and 1983. Drawdown in the well when pumped at 1.4 MGD (980 gpm) after a 24-hour period was 6.5 ft. The well is approved by the Pennsylvania Department of Environmental Protection and has been in operation since 1987.

All of the water pumped from the wells located in the Susquehanna River Basin is diverted to the Ohio River Basin.

### Findings

The project is subject to SRBC out-of-basin diversion approval and reporting as per Commission Regulation 803.42 and ground-water withdrawal approval and reporting requirements as per Commission Regulation 803.43. The project should install meters at each well so that it will be able to comply with the Commission's monitoring requirements. The meters should be accurate to within 5 percent of actual flow.

To satisfy Commission Regulation 803.42, the applicant has agreed to pay the Commission quarterly in-lieu-of providing actual compensation water.

The applicant has been diverting Susquehanna River Basin water from the wells described in this docket since 1969. In 1972, the applicant began consumptively using water in excess of the Commission's consumptive water use regulation (803.42) threshold of 20,000 gallons per day over a 30-day average. The applicant has offered a reasonable settlement to the Commission to compensate for prior water consumed under Regulation 803.42.

The project is subject to SRBC water conservation requirements as per Commission Regulation 804.20(a).

The project has an existing average daily demand of 0.327 MGD and an existing maximum water demand of 0.463 MGD. Projection of the use to the year 2025 results in a peak water demand of 0.498 MGD, which is the staff recommended withdrawal limit.

The applicant has paid the appropriate application fee pursuant to Commission Regulation 803.28 and in accordance with Commission Resolution 97-01. The applicant has also provided all proofs of required notification as called for in Commission Regulation 803.25.

Staff determined that a constant rate pumping test (48-hours) for Well No. 9 was unnecessary. During testing fifteen years ago, pumpage at a substantially higher rate than requested yielded minimal drawdown. Additionally, the applicant has been operating Well No. 9 as part of the public water supply system without problems since 1987.

No adverse impacts on other area ground-water withdrawals are anticipated. The project does not conflict with nor adversely affect the SRBC Comprehensive Plan, is physically feasible, and does not adversely influence the present or future use and development of the water resources of the basin.

### **Out-Of-Basin Diversion Considerations**

**Reasonably Foreseeable Need.** This project is the source of water supply for the Borough of Berlin, Village of McDonaldton and the Township of Brothersvalley. Due to coal mining in the area, the project area is the closest substantial source of non-polluted water. The Borough has been using sources in the Susquehanna River Basin since pre-Commission times. The applicant has adequately documented a need for a total system withdrawal of 0.498 MGD (30-day average). These amounts appear to be reasonable for a community of this size and the associated commercial and industrial water use. The community is 100 percent metered and unaccounted-for water is well under levels cited in the Commission's Regulation 804.20(a)(1), demonstrating its conservative and efficient use of water.

**Proximity to Basin.** The SRBC out-of basin diversion policy states that the Commission may consider the proximity of the project to the Susquehanna River Basin. The project wells are located within 2,000 feet of the basin divide. The communities served by the municipal authority are located in the Ohio River Basin, immediately adjacent to the basin divide.

**Effects on the Susquehanna River Basin and the Chesapeake Bay.** The quantity of water needed for this project will not jeopardize the basin's long-term water needs. During much of the year, the applicant relies on sources in the Ohio River Basin. Approximately 0.33 MGD will be diverted at current water usage rates. The applicant has elected to pay the Commission to store water to be released in times of low flow. These releases will benefit the river from the reservoir to the Chesapeake Bay.

**How will the project affect environmental, social and recreational values?** The project is needed as a potable water supply and has been used for this purpose for a number of years. The applicant, based on 1990 census data, serves some 2,400 residents.

The applicant has agreed to promote water conservation throughout the Borough community. The Borough's water conservation program will include educational programs in its schools and to civic groups, distribution of appropriate conservation literature, and institution of an incentive program to install water conserving fixtures (toilets, sinks, showers, etc.). The project also is subject to the Commission's water conservation requirements.

In addition, the applicant will place signs denoting the basin divide on Route 31, the major highway in the area.

**Were alternatives to diversion considered?** Options are very limited due to the coal mining that has taken place in the area. Good quality water is not as plentiful in this portion of the Ohio River Basin as it is in the Susquehanna River Basin, and its treatment would be expensive. The applicant has demonstrated reasonable efforts to develop sources within the basin of need. The applicant has located several sources of potable water in the Ohio River Basin and operates two wells and four springs that provide significant supplies for much of the year. However, water availability from these sources is limited and the water quality declines as ground-water levels drop during the summer season.

This project is located very close to the Susquehanna/Ohio River Basin divide. This severely limits the possible options. The Borough has been using the project area in the Susquehanna River Basin as a water supply source since pre-Commission times and has located its transmission infrastructure and treatment facilities to use this source.

**Economic Considerations.** The Borough of Berlin has indicated that it would be economically impossible to develop other water sources or treatment facilities to provide potable water to the area residents. Over the years, the community committed significant resources to developing its water system and the sources in the Susquehanna River Basin, including well exploration and development, transmission infrastructure construction and maintenance, and land acquisition, including substantial parcels for well head protection. This considerable investment would be lost if the diversion were not approved. If the Borough were to use waters of inferior quality in the Ohio River Basin, the Borough would be subject to excessive treatment costs.

**Land Use Planning.** A reliable, plentiful water supply is an essential consideration for any land use planning. Development within the Borough and adjacent areas has grown to depend on the Susquehanna River Basin as a source of water supply and any additional development will be somewhat controlled by the availability of water.

## Decision

The project is approved for a water withdrawal (30-day average) of 0.44 MGD from Wells No. 9 and 10, a total system withdrawal limit (30-day average) of 0.498 MGD, and the maximum daily out-of-basin diversion of up to 0.498 MGD pursuant to Article 3, Section 3.10 of the Compact subject to the following conditions:

a. The applicant shall comply with all SRBC regulations, including consumptive water use and ground-water reporting requirements as per Commission Regulations 802.42 and 803.43.

b. The applicant shall keep records of the weekly water pumpage, by source, and ground-water levels in Wells No. 6, 9, and 10. Meters shall be installed at each well. The meters should be accurate to within 5 percent of actual flow. The required reporting data for Wells No. 6, 9, and 10 shall be submitted to the Commission annually.

c. The applicant shall make quarterly payments to the Commission in the amount of \$0.14 per 1,000 gallons of water diverted by the project. This payment shall be provided for all water diverted from Wells No. 9 and 10 and any water in excess of the pre 1971 usage of 0.030 MGD from Well No. 6. The rate of payment, after appropriate notice to all consumptive users of water using this method of compliance, is subject to change at the Commission's discretion. Payment shall be made for all water diverted in excess of that pumped from Well No. 6 or 0.030 MGD, whichever is less, since January 1, 1998. Payment for water diverted from January 1, 1998 until September 30, 1998 is due on or before October 31, 1998 and all subsequent payments will be due on or before one month after the close of the quarter.

d. A settlement by agreement pursuant to Commission Regulation 805.27 has been accepted as payment for prior water use and diversion. As part of that agreement the applicant shall:

1. Conduct a timber management program on Borough-owned or controlled property to protect and improve the watershed area. A description of this program will be provided to the Commission within six months of the effective date of this docket.
2. Strengthen the ongoing leak detection program of the infrastructure serving the Borough of Berlin area with water supply. The Commission shall be informed by the applicant within six months of the effective date of this docket regarding the improvements to the leak detection system that will be initiated.
3. Initiate and support a water conservation program which will address sound conservation practices. This program shall include presentations to students through the local school system and to local civic groups, distribution of appropriate conservation literature, and institution of an incentive program to install water conserving fixtures (toilets, sinks, showers, etc.). This program shall be developed and presented to the Commission for approval within one year of the effective date of this docket.

4. Install Commission approved signs along Route 31 indicating the entrance to and exit from the Susquehanna River Basin. These signs are conditioned upon approval from all involved third parties such as the Pennsylvania Department of Transportation. It shall be the responsibility of the applicant to obtain all necessary permits required prior to sign erection. Signs shall be installed within one year of the effective date of this docket.

e. The applicant shall comply with SRBC water conservation requirements as per Commission Regulation 804.20(a).

f. If the Commission determines that operation of the proposed ground-water withdrawal significantly affects any existing ground-water or surface-water withdrawal, the applicant shall be required to provide, at its expense, an alternate water supply or other mitigating measures.

g. This action does not obviate the need for the applicant to obtain any other federal, state, or local approvals required for the project.

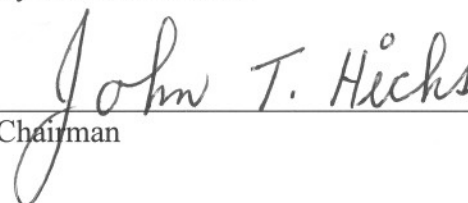
h. The Commission reserves the right, based upon new findings, to reopen any project docket and make additional orders that may be necessary to mitigate or avoid adverse impacts or otherwise to protect the public health, safety, welfare or the environment. Commission approval confers no property rights upon project sponsors.

i. This approval is effective until July 9, 2023. In order to continue operation beyond this time, the applicant shall submit a renewal application by January 9, 2023.

j. The applicant has a period of three years from the date of this approval to implement the project or such approval will automatically expire, unless an extension is requested by the applicant and approved by the Commission. Likewise, if the project is discontinued for such a time that and under such circumstances that an abandonment of the project may be reasonably inferred, the Commission may rescind the approval of the project unless a renewal is requested by the applicant and approved by the Commission.

By the Commission:

Dated: July 9, 1998

  
Chairman





# SUSQUEHANNA RIVER BASIN COMMISSION

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**Docket No. 19980702-1**

**Approval Date: July 9, 1998**

**Modification Date: December 15, 2011**

## MUNICIPAL AUTHORITY OF THE BOROUGH OF BERLIN

**Groundwater Withdrawal (30-Day Average) of 0.440 mgd from Well Nos. 9 and 10,  
Total System Withdrawal Limit (30-Day Average) of 0.498 mgd,  
Consumptive Water Use of up to 0.498 mgd,  
and the Out-of-Basin Diversion of up to 0.498 mgd,  
for Public Water Supply**

### Section 1. Approval

After review of the record, including the technical findings of Susquehanna River Basin Commission (Commission) staff, the Commission determines that no adverse impacts are anticipated by the operation of this project, and that 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. Upon further review of the previously approved docket, the Commission determined that a condition related to the reporting requirements was in need of clarification. Accordingly, the approval of the withdrawal, consumptive use, and out-of-basin diversion of water in support of the project and water use purpose identified in Section 2, from the sources and locations identified in Sections 3 and 7, is hereby modified by the Commission in accordance with the conditions set forth below.

Commission staff has coordinated with the Pennsylvania Department of Environmental Protection (PADEP) and the Pennsylvania Fish and Boat Commission (PFBC) during review of this project.

### Section 2. Project Information

Information concerning the project sponsor, water use type, and location are set forth in the table below.

Project Information	
<b>Project Sponsor:</b>	Municipal Authority of the Borough of Berlin
<b>Approval Types:</b>	Groundwater Withdrawal, Consumptive Use and Out-of-Basin Diversion
<b>Authorized Water Use Purpose:</b>	Public Water Supply
<b>Municipality:</b>	Allegheny Township
<b>County:</b>	Somerset County
<b>State:</b>	Pennsylvania

### Section 3. Source Information

Information concerning the source of water from which the withdrawal will be made is set forth in the table below.

Source Information	
<b>Withdrawal Type:</b>	Groundwater
<b>Withdrawal Source:</b>	Well Nos. 9 and 10
<b>Subbasin:</b>	Juniata River
<b>Watershed Boundary Dataset (WBD):</b>	0205030301 (Raystown Branch Juniata River)
<b>Withdrawal Location (degrees)*:</b>	Lat: -- Long: --
<b>Special Flow Protection Required:</b>	No
* Specific location information concerning discrete water-related project features has been withheld for security reasons.	

### Section 4. Aquifer Testing

The constant-rate aquifer testing requirements of Commission Regulation 18 CFR §806.12 were satisfied by the project sponsor prior to Commission issuance of the previous approval and are documented in Docket No. 19980702.

### Section 5. Approved Withdrawal Quantities and Limitations

The withdrawal approved hereunder is subject to the quantitative limits and restrictions set forth in the table below.

Approved Withdrawal Quantities and Limitations	
<b>30-Day Average Withdrawal (mgd):</b>	0.440 from Well Nos. 9 and 10
<b>Total System Withdrawal Limit (30-Day Average) (mgd):</b>	0.498
mgd – million gallons per day	

The withdrawal is also subject to all other conditions set forth in this docket approval.

### Section 6. Approved Consumptive Water Use Quantities and Limitations

The consumptive water use approved hereunder is subject to the quantitative limits and restrictions set forth in the table below.



<b>Approved Consumptive Water Use Quantities and Limitations</b>	
<b>Sources for Project Consumptive Water</b>	
<b>Use:</b>	Well Nos. 6, 9 and 10
<b>Peak Day Consumptive Water Use</b>	
<b>Amount (mgd):</b>	0.498 (Not to Exceed)
<b>Project Consumptive Water Uses:</b>	Out-of-basin diversion for public water supply
<b>Consumptive Water Use Mitigation Type:</b>	Payment of consumptive use mitigation fee

The consumptive use of water is also subject to all other conditions set forth in this docket approval.

## Section 7. Grandfathering Determination

Quantities applicable to the project's grandfathering determination for existing withdrawals and consumptive water uses are listed in the tables below.

<b>Grandfathered Groundwater Withdrawals</b>	
<b>Source</b>	<b>30-Day Average Withdrawal (mgd)</b>
Well No. 6	0.030

<b>Grandfathered Consumptive Water Use</b>		
<b>Consumptive Water Use</b>	<b>Source</b>	<b>Peak Day Consumptive Water Use (mgd)</b>
Out-of-Basin Diversion	Well No 6.	0.030

## Section 8. Standard Conditions

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

2. The project sponsor shall adhere to the metering plan reviewed and approved by Commission staff. Any modifications proposed for the metering plan shall be submitted for review and approval by Commission staff in accordance with Commission Regulation 18 CFR §806.30. Modifications shall not be made until the project sponsor receives written approval of the amended plan.

3. Within ninety (90) days from the date of this approval, the project sponsor shall submit a plan to Commission staff for review and approval for the implementation of a groundwater elevation monitoring program. The plan shall include proposed methods for the daily measurement and recording of groundwater elevations in the sources listed in Sections 3 and 7. Following approval, the project sponsor shall execute the plan and complete installation of water level monitoring equipment in accordance with the approved schedule. The project sponsor shall notify the Commission, in writing, and submit digital photographs of the water

level monitoring equipment when it has been installed and certify the accuracy of the measuring devices. The project sponsor shall notify the Commission when the monitoring plan has been fully implemented. Thereafter, the groundwater elevation data shall be reported 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.

4. The project sponsor or any other person shall allow authorized employees or agents of the Commission, without advance notice, at any reasonable time and upon presentation of appropriate credentials, and without delay, to have access to and to inspect all areas where the project is being constructed, operated, or maintained, or otherwise exercise all investigative powers authorized under Commission Regulation 18 CFR §808.12.

5. The project sponsor shall keep daily records of the project's withdrawal and out-of-basin diversion 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 submitted for review and, if appropriate, approved by Commission staff prior to implementing or modifying existing equipment or procedures.

6. 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 the out-of-basin diversion, 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.

7. The project sponsor shall keep daily records of the project's consumptive water use and shall report the data to the Commission quarterly, and as otherwise required. The daily quantity of water consumptively used shall be the quantity of water diverted to the Ohio River Basin from Well Nos. 6, 9, and 10. 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 submitted for review and, if appropriate, approved by Commission staff.

8. The project's consumptive water use as calculated above is subject to water mitigation requirements, as per Commission Regulation 18 CFR §806.22(b). To satisfy the Commission's current compensation requirements for consumptive water use, the project sponsor shall make quarterly payments to the Commission at the rate specified in the effective Regulatory Program Fee Schedule, as modified from time to time by the Commission. Payments shall be made quarterly and shall be calculated by applying this rate to the daily amount of water consumptively used by the project, in excess of the grandfathered quantity specified in Section 7, during the preceding calendar quarter. Quarterly payments are due and payable within thirty (30) days after the close of the preceding quarter. The rate of payment, after appropriate notice to consumptive users of water using this method of compliance, is subject to change at the Commission's discretion.

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

10. 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 §110.201, Pennsylvania Water Resources Planning Act, Act 220 of 2002.

11. If the project sponsor fails to comply with the provisions of the Susquehanna River Basin 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.

12. 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. All such permits and/or approvals shall be obtained prior to the withdrawal of water. The Commission reserves the right to modify, suspend, or revoke this action if the project sponsor fails to obtain or maintain such approvals.

13. 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 the environment, pursuant to Commission Regulation 18 CFR §806.32.

14. 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.

15. This project is approved for inclusion in the Commission's Comprehensive Plan for the Water Resources of the Susquehanna River Basin.

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

17. Should the project's anticipated withdrawals, consumptive use, or out-of-basin diversion be expected to exceed the amounts listed herein, the project sponsor is required to make application for modification to this approval at that time.

18. If the Commission determines that the operation of the project's groundwater withdrawal adversely affects any existing groundwater or surface water withdrawal, the project sponsor shall be required to provide, at its expense, an alternate water supply or other mitigating measure.

19. This modified approval is effective until July 9, 2023, the term of the prior docket approval. As specified in Commission Regulation 18 CFR §806.31(e), the project sponsor shall submit an application by January 9, 2023, and obtain Commission approval prior to continuing operation beyond July 9, 2023.

## Section 9. Special Conditions

20. All other conditions in Commission Docket No. 19980702 not inconsistent herewith shall remain effective.

21. Should the project's grandfathered withdrawals or consumptive water uses be expected to exceed the amounts listed herein, the project sponsor is required to make application at that time.

22. Should the project's anticipated total system demand be expected to exceed the approved total system withdrawal limit herein, the project sponsor is required to make application for modification to this approval at that time.

23. The project sponsor shall maintain legal access to the withdrawal location for the duration of the approval.

**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 December 15, 2011.

Dated: December 16, 2011

  
Stephanie L. Richardson