

DOCKET NO. D-99-43 CP-2

DELAWARE RIVER BASIN COMMISSION

**Washington Township Municipal Utilities Authority
Ground Water Withdrawal
Washington Township, Gloucester County, New Jersey**

PROCEEDINGS

This docket is issued in response to an Application submitted by the Washington Township Municipal Utilities Authority on April 14, 2008 to the Delaware River Basin Commission (DRBC or Commission) for renewal of an allocation of ground water and review of a ground water withdrawal (Application). The project was previously approved by the DRBC on July 20, 2005. The project was approved by the New Jersey Department of Environmental Protection (NJDEP) on January 10, 2008 (Permit No. 5194), subject to approval by the DRBC.

The Application was reviewed for continuation of the project in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact*. The Gloucester County Planning Department has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on September 24, 2008.

A. DESCRIPTION

1. Purpose. The purpose of this project is to change existing Well No. 20 from an Aquifer Storage and Recovery well to a production well, to continue the total combined withdrawal of 273.01 million gallons per thirty days (mg/30 days) from all fifteen wells, and to increase the allocation for Wells Nos. 2, 3, 4, 5, 8, 9, 15 and 20 from 109 mg/30 days to 133.81 mg/30 days to supply the docket holder's public supply distribution system; the total combined withdrawal from all wells will remain unchanged at 273.01 mg/30 days.

2. Location. The project wells are located in the Big Timber Creek and Mantua Creek Watersheds in the Potomac – Raritan – Magothy, Mt. Laurel-Wenonah, and Kirkwood-Cohansey Formations as indicated below. Specific location information has been withheld for security reasons.

| WELL NO. | AQUIFER |
|-----------------|-----------------------------|
| 2 | Potomac – Raritan – Magothy |
| 3 | Potomac – Raritan – Magothy |
| 4 | Potomac – Raritan – Magothy |
| 5 | Potomac – Raritan – Magothy |
| 8 | Potomac – Raritan – Magothy |
| 9 | Potomac – Raritan – Magothy |
| 10 | Cohansey - Kirkwood |
| 11 | Cohansey – Kirkwood |
| 14 | Mt. Laurel – Wenonah |
| 15 | Potomac – Raritan – Magothy |
| 16 | Cohansey – Kirkwood |
| 17 | Mt. Laurel – Wenonah |
| 18 | Cohansey - Kirkwood |
| 19 | Cohansey – Kirkwood |
| 20 | Potomac – Raritan – Magothy |

3. **Area Served.** Washington Township Municipal Utilities Authority (WTMUA) supplies water to portions of Washington Township as indicated on the map entitled “Water Utilities Map” submitted as part of the application. For the purpose of defining Area Served, the Application is incorporated herein by reference consistent with conditions contained in the DECISION section of this docket.

4. **Physical features.**

a. **Design criteria.** WTMUA operates fourteen wells with an average water demand of 246.51 mg/30 days. Well No. 19 is currently not in use and is not metered. Additionally, the docket holder has converted Well No. 20 from an Aquifer Storage and Recovery (ASR) well to a production well. No water was injected into Well No. 20 after receiving DRBC approval in 2005, though water was withdrawn from the well. The 2005 DRBC approval required that the docket holder only withdraw water from Well No. 20 if it were “preceded by injection of an equivalent storage volume and the water recovered from storage shall take place within one year of the date from which storage began.” The docket holder violated its DRBC docket as it did not inject any water into ASR Well No. 20 prior to withdrawing water. According to withdrawal records submitted to the NJDEP, the docket holder also exceeded the monthly withdrawal limit in April, May and August 2006; and April and May 2007.

The NJDEP approved the conversion of Well No. 20 from an ASR well to a production well in their Water Allocation Permit No. 5194, issued on January 10, 2008. In that permit, the NJDEP noted, “The applicant’s failure to comply with the requirements regarding the ASR Well 20 and the exceedance of the monthly allocation for the Critical Area 2 – PRM aquifer sources,

will be partially addressed through this permit modification by converting Well 20 from an ASR well to a production well and increasing the monthly allocation for the Critical Area 2 – PRM aquifer sources.” However, the NJDEP did not allow an increase in the annual base allocation from the PRM, as this is prohibited by law.

The future ten-year average water demand is anticipated to be 284.61 mg/30 days. The docket holder is encouraged by the New Jersey Statewide Water Supply Plan to seek connection to the Tri-County Project as well as sub-regional alternatives such as water conservation, conjunctive use, aquifer storage and recovery wells and management of ground water supplies. The total allocation granted herein is limited to the existing total allocation of 273.01 mg/30 days and the docket holder will submit a new application to the Commission for an increase in allocation if necessary.

b. Facilities. The existing project wells have the following characteristics:

| WELL NO. | DEPTH (FEET) | CASED DEPTH (FEET)/ CASING DIAMETER (INCHES) | PUMP CAPACITY (GPM) | YEAR DRILLED |
|----------|--------------|---|---------------------|--------------|
| 2 | 576.5 | 543 / 8 | 400 | 1965 |
| 3 | 642 | 575 / 12 | 1000 | 1972 |
| 4 | 418 | 369 / 8 | 400 | 1972 |
| 5 | 618 | 512 / 12 | 1000 | 1972 |
| 8 | 620 | 544 / 8 | 600 | 1968 |
| 9 | 552 | 512 / 12 | 1000 | 1981 |
| 10 | 103 | 83 / 24 | 1000 | 1987 |
| 11 | 85 | 60 / 24 | 700 | 1989 |
| 14 | 382 | Unknown | 500 | 1990 |
| 15 | 712 | Unknown | 985 | 1990 |
| 16 | 92 | Unknown | 350 | 1990 |
| 17 | 342 | Unknown | 490 | 1990 |
| 18 | 93 | 60 / 12 | 700 | 1993 |
| 19 | 95 | 65 / 24 | 583 | 1996 |
| 20 | 711 | 431 / 14 | 850 | 1996 |

All water service connections are metered.

All wells are metered with the exception of Well No. 19. Prior to operating Well No. 19 the docket holder must submit proof of flow meter installation and calibration.

Prior to entering the distribution system, the water is treated with sodium hypochlorite, lime, fluoride, a corrosion inhibitor and treated for radium removal.

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

The WTMUA distribution system has an emergency interconnection with the Consumers New Jersey Water Company and Monroe Township.

c. **Other.** Wastewater is conveyed to the Gloucester County Utilities Authority sewage treatment facility most recently approved by DRBC Docket No. D-90-74 CP-2 on March 30, 2006. The NJDEP issued its most recent NPDES Permit No. NJ0024686 on July 9, 2004 for this treatment facility. The treatment facility has adequate capacity to receive wastewater from the project.

d. **Relationship to the Comprehensive Plan.** The docket holder's wells were previously included in the Comprehensive Plan by Dockets Nos. D-65-119 CP, D-72-180 CP, D-73-173 CP, D-80-60 CP, D-86-40 CP, D-91-25 CP, D-94-26 CP, D-98-06 CP and D-99-43 CP.

B. FINDINGS

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

The NJDEP water allocation is for a limited period and is not subject to automatic renewal. The docket holder is in a Critical Area designated by the State of New Jersey and is subject to such requirements as may be necessary pursuant to N.J.A.C. 7:19-8.

Wells Nos. 2, 3, 4, 5, 8, 9, 15, and 20 are screened in the Potomac-Raritan-Magothy Aquifer (PRM) and are located within the depleted portion of the NJDEP's Water Supply Critical Area No. 2. Accordingly, the docket holder has been mandated by the NJDEP to limit the total withdrawal from these wells to 1052.579 mg/year.

The DRBC estimates that the project withdrawals, used for the purpose of public water supply, result in a consumptive use of ten percent of the total water use. The DRBC definition of consumptive use is defined in Article 5.5.1.D of the *Administrative Manual – Part III – Basin Regulations – Water Supply Charges*.

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.

The docket holder did not perform a pumping test on Wells Nos. 2, 3, 5, 8, 9, 15 and 20 in support of the request for an increase in allocation. However, the New Jersey Geological Survey utilized the USGS Regional Aquifer System Analysis model to evaluate the increase in

monthly pumping from these wells. Based on the modeling results, the New Jersey Geological Survey concluded that any drawdown projected to occur within the upper PRM aquifer would be less than five feet; and no drawdown is projected to occur in the deeper PRM aquifer. The upper PRM appears to be well confined in the area due to its stratigraphic location beneath the Merchantville-Woodbury confining unit. No adverse impact is anticipated with the operation of this project.

C. DECISION

- I. Effective on the approval date for Docket No. D-99-43 CP-2 below:
 - a. The projects described in Docket No. D-99-43 CP are removed from the Comprehensive Plan to the extent that they are not included in Docket No. D-99-43 CP-2 and
 - b. Docket No. D-99-43 CP is terminated and replaced by Docket No. D-99-43 CP-2.
 - c. The project and the appurtenant facilities described in the Section A “Physical features” shall be added to the Comprehensive Plan.
- II. The project and appurtenant facilities as described in the Section A “Physical features” are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:
 - a. Docket approval is subject to all conditions, requirements, and limitations imposed by the NJDEP in its Water Allocation Permit and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission’s.
 - b. The wells and operational records shall be available at all times for inspection by the DRBC.
 - c. The wells shall be operated at all times to comply with the requirements of the *Water Code* and *Water Quality Regulations* of the DRBC.
 - d. During any 30-day period, the total withdrawal from Wells Nos. 2, 3, 4, 5, 8, 9, 15, and 20 shall not exceed 133.81 million gallons; the total withdrawal from Wells Nos. 10, 11, 16, 18, and 19 shall not exceed 102 million gallons; the total withdrawal from Wells Nos. 14 and 17 shall not exceed 37.2 million gallons; and the total combined withdrawal from all wells shall not exceed 273.01 million gallons. During any year the total withdrawal from Wells Nos. 2, 3, 4, 5, 8, 9, 15, and 20 shall not exceed 1052.579 million gallons. Water withdrawn shall not be used for non-potable, consumptive purposes for new projects that are greater than 50 percent non-potable and greater than 50 percent consumptive where, as determined by the NJDEP, alternative water sources (including but not limited to reclaimed water for beneficial reuse) are feasible to serve the non-potable, non-consumptive needs of the project.

e. The wells shall be equipped with readily accessible capped ports and drop pipes so that water levels may be measured under all conditions.

f. The project withdrawals shall be metered with an automatic continuous recording device that measures to within 5 percent of actual flow. An exception to the 5 percent performance standard, but no greater than 10 percent, may be granted if maintenance of the 5 percent performance is not technically feasible or economically practicable. A record of daily withdrawals shall be maintained, and monthly totals shall be reported to the NJDEP quarterly and shall be available at any time to the Commission if requested by the Executive Director.

g. The docket holder shall install a calibrated totalizing flow meter on Well No. 19. Proof of installation shall be submitted to the Commission prior to placing the well into operation.

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

i. In accordance with DRBC Resolution No. 87-6 (Revised), the docket holder shall continue to implement to the satisfaction of the NJDEP, the systematic program to monitor and control leakage within the water supply system. The program shall at a minimum include: periodic surveys to monitor leakage, enumerate unaccounted-for water and determine the current status of system infrastructure; recommendations to monitor and control leakage; and a schedule for the implementation of such recommendations. The docket holder shall proceed expeditiously to correct leakages and unnecessary usage identified by the program.

j. The docket holder shall implement to the satisfaction of the NJDEP, the 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 NJDEP on the actions taken pursuant to this program and the impact of those actions as requested by the NJDEP.

k. 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).

l. The docket holder shall continue to implement its Water Conservation Plan as approved by NJDEP, and shall report to the NJDEP on actions taken pursuant to this program and the impact of those actions as requested by the NJDEP.

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

n. No new water service connections shall be made to premises connected to sewerage systems which are not in compliance with all applicable effluent limits contained in State permits and the *Water Quality Regulations* of the Commission.

o. 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.

p. 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*.

q. A complete application for the renewal of this docket, or a notice of intent to cease the operations (withdrawal, discharge, etc.) approved by this docket by the expiration date, must be submitted to the DRBC at least 12 months prior to the expiration date below (unless permission has been granted by the DRBC for submission at a later date), using the appropriate DRBC application form. In the event that 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 this docket will remain fully effective and enforceable against the docket holder pending the grant or denial of the application for docket approval.

r. 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 in order to insure the proper control, use and management of the water resources of the Basin.

s. If the operation of this project significantly affects or interferes with any domestic or other existing wells or surface water supplies, or if the docket holder receives a complaint by any user of wells or surface water supplies within the zone of influence of the withdrawal, the docket holder shall immediately notify the Executive Director of any complaints by users of wells or surface water supplies within the zone of influence of the withdrawal, and unless excused by the Executive Director, shall investigate such complaints. The docket holder should direct phone call notifications of potential well or surface water interference or complaints of interference to the DRBC Project Review Section at 609-883-9500, extension 216. Oral notification must always be followed up in writing directed to the Executive Director. In addition, the docket holder shall provide written notification to all potentially impacted users of wells or surface water supplies of the docket holder's responsibilities under this condition. Any well or surface water supply which is substantially adversely affected, or rendered dry or otherwise unusable as a result of the docket holder's project withdrawal, shall be repaired, replaced or otherwise mitigated at the expense of the docket holder. A report of investigation and/or mitigation plan prepared by a hydrologist shall be submitted to the Executive Director as soon as practicable. The Executive Director shall make the final determination regarding the validity of such complaints, the scope or sufficiency of such investigations, and the extent of appropriate mitigation measures, if required. 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.

t. During any water emergency or other non-emergency declaration by the Governor of New Jersey, NJDEP or the Commission, water service or use by the project docket holder pursuant to this docket approval shall be subject to any order or restriction governing those non-essential uses specified by the NJDEP to the extent that they may be applicable, and to any other emergency resolutions or orders adopted by the Commission.

u. The docket holder and any other person aggrieved by a reviewable action or decision taken by the Executive Director or Commission pursuant to this docket may seek an administrative hearing pursuant to Articles 5 and 6 of the Commission's *Rules of Practice and Procedure*, and after exhausting all administrative remedies may seek judicial review pursuant to Article 6, section 2.6.10 of the *Rules of Practice and Procedure* and section 15.1(p) of the Commission's *Compact*.

BY THE COMMISSION

APPROVAL DATE:

EXPIRATION DATE: September 24, 2018