

DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY
OFFICE OF LAND AND WATER PLANNING

AMENDMENT TO THE NORTHEAST AND UPPER RARITAN WATER
QUALITY MANAGEMENT PLANS

Public Notice

Take notice that on MAY 05 1994 , pursuant to the provisions of the New Jersey Water Quality Planning Act, N.J.S.A. 58:11A-1 et seq., and the Statewide Water Quality Management Planning (SWQMP) rules (N.J.A.C. 7:15-3.4), an amendment to the Northeast and Upper Raritan Water Quality Management Plans was adopted by the Department. This amendment provides a Wastewater Management Plan (WMP) for New Providence Borough. The WMP identifies the sewer service areas to the New Providence Sewage Treatment Plant (STP), the Joint Meeting of Essex and Union Counties (JMEUC) STP, and the Berkeley Heights STP. By agreement, the New Providence STP is currently permitted to pump up to 1.5 million gallons per day (mgd) of wastewater to the JMEUC STP. The WMP proposes an increase in the maximum allowable flow to be pumped to the JMEUC STP from 1.5 mgd to 3.0 mgd to allow for treatment of all dry weather and some wet weather flows generated within the New Providence plant's service area. This proposal amends the JMEUC WMP. The New Providence STP discharges to the Passaic River and the JMEUC STP discharges to the Arthur Kill. This proposal allows for an increase in the interbasin transfer of wastewater. In addition, a water quality study will be required to determine effluent limits for the flows above 3.0 mgd discharged from the New Providence STP.

This amendment proposal was noticed in the New Jersey Register on August 16, 1993. Comments on this amendment were received during the public comment period and are summarized below with the Department's responses.

The following comments were received from the North Jersey District Water Supply Commission (NJDWSC) and the Hackensack Water Company (HWC) in objection to the proposed amendment:

COMMENT: Under the proposed amendment, discharges into the Passaic River from the New Providence STP are to be eliminated except for such occasions when the flow into the New Providence STP exceeds the flow pumped to the JMEUC STP. Thus, the contribution of flow to the Passaic River will be reduced from between 0.25 mgd and 0.70 mgd except during times of excess flow into the New Providence STP.

The NJDWSC and HWC are concerned that termination of the continuous discharge to the Passaic River from the New Providence STP would reduce water availability. Water availability is estimated by defining the "safe yield", or the amount of water that can be provided if the drought of record was repeated. In the case of the Passaic River and its tributaries, it is the amount of water that the reservoirs of the basin can provide if the 1960s drought reoccurred. Since a portion of river flow that is pumped to the reservoirs of the basin is composed of treated wastewater, the concern is that cessation of New Providence's continuous discharge would reduce the basin's safe yield. This safe yield is the basis for the NJDWSC and HWC water diversion rights within the basin. A specific amount of water has already been allocated through water diversion permits and if part of this water is put into the Arthur Kill instead of the Passaic River, New Providence will be reallocating some of NJDWSC's and HWC's entitlement. The purveyors indicated that approval of the wastewater transfer and its consequent effect on water availability would place the Water Quality Planning Act and the Water Supply Management Act and their respective rules in conflict with each other.

RESPONSE: The Water Supply Element of the Department, in conjunction with the water supply purveyors that are concerned, recently re-evaluated the analysis that was originally used to define the safe yield of the basin. It was concluded that a substantial increase of treated sewage discharges since at least 1979 from both in-basin and out-of-basin supplies would more than counter balance impacts on the purveyor's safe yield due to termination of the relatively minor continuous discharge from the New Providence STP.

In light of the above, and in conjunction with anticipated water quality improvements and the assumed cost difference between the proposal and upgrading the New Providence STP for continuous discharge, the Department has concluded that the proposed transfer of additional wastewater to the JMEUC STP is both approvable and consistent from a water supply and water quality management planning perspective and in the Borough's best economic interests. The Department notes, however, that the projected cost differential is based on assumptions regarding the final effluent limits for the proposed intermittent discharge from the New Providence STP during wet weather flow conditions. These assumptions will need to be verified through the mechanisms provided by the New Jersey Pollutant Discharge Elimination System rules, N.J.A.C. 7:14A-1 et seq., including a water quality study to determine effluent limits. Additional planning may be necessary if the results of the study do not prove cost effective.

Outside of the above, the Department does recognize that the cessation of sizable treated wastewater discharges in reservoir watersheds could in fact reduce the safe yield of these storage facilities in the future, especially as surface water quality standards evolve and become more stringent. As such, the Department intends to develop and implement policy through the SWQMP rules that would discourage

these forms of transfers where the wastewater serves as a safe and reliable component of the watershed's available water supply. To proceed with policy development and implementation, the Department has recently proposed and provided for public review an interested party review document on the conceptual changes to the SWQMP rules which included draft interbasin transfer policies. The goal of these policies is no significant reduction of a watershed's ability to support water supply yields, dilution for effluent flows from wastewater treatment systems, and ecosystems. As proposed, the policies would discourage any significant reduction in water supply yields to public water supply systems with water allocation permits.

COMMENT: The Borough's proposed project and WMP must be rejected because they do not comply with the following additional requirement of the SWQMP rules:

In preparing amendments to areawide WQMPs, the following policies shall be adhered to:

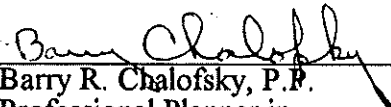
...Expansion or upgrading of existing regional DTW
["domestic treatment works"] is generally
preferable to construction of additional DTW that
would produce additional direct discharges to
surface water at new locations. [N.J.A.C. 7:15-
3.4(l)1 (emphasis added)].

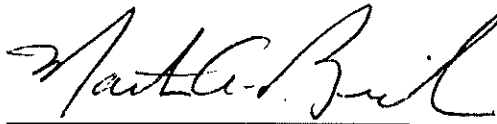
Instead of continuing the discharge of treated effluent back into the Passaic River, the Borough now proposes to send its discharge to an entirely different facility, i.e. the JMEUC STP, "that would produce additional direct discharges to surface water at new locations", i.e. the Arthur Kill.

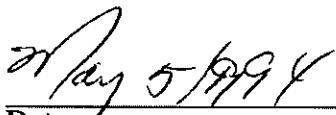
RESPONSE: Because the JMEUC STP is an existing regional facility which already accepts a portion of the New Providence STP's flow, and no new surface water discharges are proposed by this amendment, the Department has determined that the Borough's proposal to send additional flow to the JMEUC STP is consistent with the policies specified at N.J.A.C. 7:15-3.4(l)1. Note that the Department anticipates modifying these policies, through modification of the SWQMP rules, to better balance benefits and cost (i.e. to water supplies) of regional systems.

This amendment represents only one part of the permit process and other issues will be addressed prior to final permit issuance. Additional issues which were not reviewed in conjunction with this amendment but which may need to be addressed may include, but are not limited to, the following: antidegradation; effluent limitations; water quality analysis; exact locations and designs of future treatment works (pump stations, interceptors, sewers, outfalls, wastewater treatment plant); and development in wetlands, flood prone areas, designated Wild and Scenic River

areas, or other environmentally sensitive areas which are subject to regulation under federal or State statutes or rules.


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Date

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