

DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ENVIRONMENTAL PLANNING

AMENDMENT TO THE CAPE MAY COUNTY WATER QUALITY MANAGEMENT PLAN

Public Notice

Take notice that on NOV 07 1997, 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 rules (N.J.A.C. 7:15), an amendment to the Cape May County Water Quality Management Plan was adopted by the Department of Environmental Protection (Department). This amendment is for a new discharge to Cape Island Creek from a proposed desalination plant to be located on Block 1061, Lot 139 in Cape May City. The new discharge will be approximately 700,000 gallons per day (gpd) of concentrate from the desalination reverse osmosis process. In addition, the sanitary wastewater (approximately 1,000 gpd) from the facility will be treated at the Cape May County Municipal Utilities Authority Regional Sewage Treatment Plant through connection to the West Cape May collection system. The existing septic system on this property will be abandoned upon connection to the sewers. The sanitary wastewater will include flows from the Public Works Department - Water Works Building and Maintenance/Repair Building (adjacent buildings on the same site), periodic membrane wash water from the reverse osmosis system, and flows from the Water Works Building floor drains and eye wash stations.

This amendment proposal was noticed in the New Jersey Register on August 18, 1997. Comments on this amendment were received during the public comment period and are summarized below with the Department's responses.

COMMENT: Mr. Frederick A. Long Jr.; Mayor Larry W. Starner of Lower Township; Mr. Michael P. Guido, representing The Meadows at Cape Island Condominium Association; and Ms. Janet Bull expressed the desire that a public hearing be held concerning the amendment proposal. In those letters, various issues were listed as the intended subjects of discussion, including effects of the incremental approval process; indirect impacts of the project; consistency of proposed actions with local, state, and federal planning documents; projections of growth; present and future withdrawal rates from existing wells and the effect on surrounding wells; monitoring; inadequate understanding of the present salt line and the effects of continuing withdrawals on its present and future location; quality of the proposed discharge and its impact on Cape Island Creek, the flora, the fauna, and the ecosystem; impact on the upper aquifer; the current state of Cape Island Creek; impact on homeowners' property rights; potential flooding issues; and increased mosquito populations and possible subsequent chemical spraying.

RESPONSE: The Department fully recognizes the importance of the water quality-related issues that constitute the majority of the listed items. Those issues were, in fact, the subject of a public hearing held by the Department on August 5, 1997, in conjunction with the New Jersey Wastewater Treatment Financing Program. An Environmental Appraisal document was also prepared as part of that program's review of the desalination facility project and issued on August

22, 1997. Copies of the Environmental Appraisal are available from the Department of Environmental Protection, Municipal Finance and Construction Element, P.O. Box 425, 401 East State Street, Trenton, New Jersey 08625-0425. In addition, the Department has worked with the U.S. Geological Survey to intensively study the aquifers of southern Cape May. The studies have resulted in aquifer models that provide a good understanding of the impacts of various water supply scenarios on the aquifers. "Water for the 21st Century: The New Jersey Statewide Water Supply Plan" included the Cape May desalination facility in the Water Supply Action Program on the condition that the project is designed such that no drinking water supply aquifer is harmed by the project. The Department has assessed the information provided and has concluded that sufficient proof is available that a water allocation permit may be considered. Opportunity for public comment will be provided as part of that permit process. Considering the fact that a public hearing has already been held on the matter of effluent discharges, and that a public hearing will be available for the detailed issues regarding the water allocation permit, the Department has concluded that the holding of another hearing for the planning process would be a duplication of effort, that these issues are being or have been addressed, and a public hearing on this amendment should not be granted.

Mr. Charles M. Norkis of the Cape May County Municipal Utilities Authority provided the following comment:

COMMENT: While the Authority has no objections to the discharge of concentrate from the desalination plant to Cape Island Creek, we can not endorse the Water Quality Management Plan Amendment because the sanitary wastewater discharge is proposed to be treated at the Cape May Regional wastewater treatment facility via the West Cape May collection system. The parcel of land which will generate the sanitary wastewater is presently mapped as an environmentally sensitive non sewerable area, and the Authority, pursuant to a grant condition dating back to June 1982, has committed to ensure that all such areas are not sewered through the regional wastewater system. It appears that the mapping of environmentally sensitive areas which occurred in 1979 failed to recognize the development which existed at that time on Lot 139, Block 1061.

RESPONSE: In response to Mr. Norkis's comment, the Department's Bureau of Program Development and Technical Services' Technical Services Section sent a letter to Mr. Norkis, clarifying the sewerability of the waterworks facility. That letter explained that, because the waterworks facility was in existence prior to the date of the grant condition, the grant condition does not apply.

The following comments were made by Mr. William Doan:

1. COMMENT: I am concerned about the ecological and environmental impact of highly saline discharge into Cape Island Creek.

RESPONSE: As is explained in the Environmental Appraisal, referred to above, the proposed concentrate discharge is not anticipated to impair any designated uses of Cape Island Creek based upon an eight week surface water quality study which included measurements of total dissolved

solids, dissolved oxygen, temperature, pH, conductivity, and an estimation of the tidal flows at the proposed discharge location. Biota impacts are not anticipated as a result of the initial discharge of the project but will be assessed as a condition of the permit to determine the feasibility of increasing the discharge at this location to accommodate the year 2020 need.

2. COMMENT: I am concerned about the damage to wetlands and wildlife habitat that the construction of the desalination plant pipelines and related infrastructure would cause.

RESPONSE: As is explained in the Environmental Appraisal, construction of the concentrate discharge line could result in temporary erosion and sedimentation of surface waters and adjacent wetlands. These impacts will be minimized by requiring the use of proper erosion and sedimentation control measures, such as hay bales and mulching, and prompt restoration. These measures are in accordance with the "Standards for Soil Erosion and Sediment Control in New Jersey" and the "Environmental Assessment Requirements for State Assisted Wastewater Treatment Facilities" (N.J.A.C. 7:22-10).

3. COMMENT: I am opposed to the desalination plant in general because it would promote and facilitate more development.

RESPONSE: As is explained in the Environmental Appraisal, the proposed project does provide capacity for an increase in water use. This increase could be associated with changes in development from seasonal to permanent housing, as has happened in Atlantic, Ocean, and Monmouth Counties along the coast. This increase could also be associated with additional development which has the potential to increase nonpoint source pollutants through stormwater runoff. Nonpoint source water pollution problems in New Jersey are currently in the process of being addressed through a number of initiatives including watershed management planning. The Department has also released a Best Management Practices manual for minimizing the generation of nonpoint source pollution. The Department is also working to implement mandates of the Coastal Area Facility Review Act (CAFRA II) regarding the application of the State Development and Redevelopment Plan to the coastal zone, including this area, which may affect the projections for water supply need into the next century.

4. COMMENT: The desalination plant discharge should be pumped directly into the ocean without environmental damage.

RESPONSE: Being that the discharge to Cape Island Creek is environmentally feasible, there would be no justification for the added cost to discharge to the ocean nor for the additional analyses that would be required for consideration of a discharge to the ocean as per the requirements of 40 CFR 125.120.

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 plants); 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.



Robert Tudor
Administrator
Office of Environmental
Planning
Department of Environmental
Protection

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Date