



*Ocean Advocacy  
Since 1984*

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November 6, 2006

## VIA FACSIMILE AND REGULAR MAIL

### **RE: Draft NJPDES Renewal Permit for the Two Rivers Water Reclamation Authority, Permit # NJ0026735.**

Dear Mr. Tompkins:

Clean Ocean Action is a regional, broad-based coalition of over 150 conservation, environmental, fishing, boating, diving, student, surfing, women's, business, service, and community groups with a mission to improve the degraded water quality of the marine waters of the New Jersey/New York coast. These comments are in response to the draft New Jersey Pollutant Discharge Elimination System (NJPDES) permit # NJ0026735 for the Two Rivers Water Reclamation Authority to discharge to surface water. The permitted design flow for this facility is 13.83 MGD and the draft permit renewal notice states that the average flow is 10.4 MGD. This facility discharges to the Atlantic Ocean at Latitude 40° 20' 04" Longitude 73° 57' 58" and located approximately 1700 feet offshore.

In general, COA is encouraged by several proposed additions to the permit requirements that are meant to improve the Department's ability to assess the impacts of the wastewater discharge on aquatic organisms. We look forward to following the progress of both the Rutgers University study and the EPA funded Benthic Index study. We are pleased by the increased monitoring requirements that have been included in this draft permit, and the addition of effluent limitations for Chlorine Producing Oxidants (CPOs). These improvements are certainly a step in the right direction. However, there are still some significant issues that must be addressed, including the failure to comply with the recent requirement of enterococci limits on all surface water dischargers, the use of "CPO Demand" to calculate effluent limits on CPOs and the premature authorization of beneficial reuse of wastewater. COA's issues and comments are detailed below.

**The draft permit fails to contain an important surface water quality standard that is now required by law.**

The Department has been requiring wastewater treatment operators to conduct monthly split sample monitoring for fecal coliforms and enterococci for a number of years, while only setting limits on the fecal coliform concentrations in the effluent. As of October 16, 2006, all surface water discharges to SC waters cannot have enterococci levels exceeding a geometric mean of 35/100 ml or a single sample maximum of 104/100 ml. The draft permit would continue the requirement to merely monitor enterococci levels, which is not legally sufficient and would threaten health and wellbeing of humans engaging in a recreational use of the receiving waters. The above required enterococci limits must be included in the final permit, with no mixing zones.

**The increased use of Water Quality Based Effluent Limits (WQBELs) is promising.**

New requirements in this draft permit represent significant progress towards the development and subsequent adoption of WQBELs for toxins that protect humans and sensitive aquatic life. We urge the Department to reject the concept of a mixing zone when developing WQBELs.

**A. Chlorine Producing Oxidants (CPOs) WQBELs:**

- i. Clean Ocean Action commends the Department for requiring CPO effluent limits in this draft permit, as COA has requested this requirement be added to ocean discharge NJPDES permits for many years. The compliance schedule of 36 months from effective date of permit (EDP) is an improvement from some previous NJPDES permits for ocean dischargers, but COA feels strongly that sufficient data exists to allow the Department to set an interim CPO limit for the permittee at the EDP.
- ii. We remain disappointed at the incorporation of dilution factors (mixing zones) in the development of these WQBELs, but even more troubling, is the addition of “CPO Demand” calculations that allow a further increase in the CPO concentration of the effluent. COA first became aware of the existence of a “CPO Demand Study” at a 2005 meeting with then-Assistant Commissioner Sam Wolfe and staff from the Division of Water Quality. At the time, we were told the report was not finalized, but we were assured that COA would receive a copy of the final study as soon as it became available. No other details on the content or source of the report were revealed at that time. This draft permit is the first reference to CPO Demand that we have seen in a NJPDES permit.

Considering the implications of the study on surface water quality limits and the fact that it was developed, conducted and submitted by the New Jersey Coastal Group Facilities (an organization of ocean dischargers), it should have been made available to the public for review and comment before being accepted by the Department and incorporated into their analysis for determining NJPDES permit limits.

**B. Ammonia Monitoring and Reporting Requirement and Toxicity Study**

COA is frustrated by the fact that WQBELs will be delayed for another entire permit cycle due to the lack of facility-specific ammonia data, as we have been urging the Department to include this parameter in NJPDES permits for ocean dischargers for some time.

- i. We are encouraged by their addition in this draft permit and look forward to reviewing the results of the permittee's Ammonia Toxicity study.
- ii. We request that all data and results from this study be made available for public review.

C. Effluent Monitoring Frequency and Reporting:

- i. COA repeated urged the Department to increase the frequency of monitoring to monthly intervals. The Department now recognizes that as a result of allowing such infrequent monitoring, they are unable to calculate WQBELs for Ammonia. The lack of data has forced the Department to delay effluent limitations for this important toxicant for five more years.
- ii. Proper characterization of priority pollutant discharges throughout the year is key to determining potential for adverse effects. With the exception of a few pollutants, the applicant monitors priority pollutants semi-annually (twice per year). NJDEP and the 1995 Ocean Discharge Criteria report do not provide evidence to show that the twice per year sample events are representative of actual levels discharged throughout the year. Thus, there is insufficient information to show that pollutant discharges are adequately characterized.
- iii. Analyses for assessing effects from nutrients must evaluate discharge data and specific conditions in the coastal environment surrounding the outfall. The 1995 Ocean Discharge Criteria report did not evaluate effects of nutrients specifically from this outfall. There are no data analyses for discharges of nutrients and subsequent fates in the ocean environment specific to this outfall. Considering the recent expansion of the facility and the near proximity of other ocean discharges of wastewater, nutrient loading and its effects to the coastal environment by this facility must be understood and addressed.
- iv. The current monitoring frequency is not sufficient to adequately detect and assess variations in toxin levels between and within years.
- v. COA reiterates our request for the Department to require monthly toxin scans. Not only will this schedule allow the Department to adequately calculate the WQBEL for these important pollutants in a timely manner, this safe-guard of increased monitoring is necessary to protect against discharges that have the potential to cause further degradation to receiving waters.

**The request for authorization for beneficial re-use is premature given that the current NJDEP guidance document for re-use has not been peer reviewed, and the Department lacks a Vision for Reclaimed Water for Beneficial Reuse (RWBR), a RWBR Program Director, and a regulatory framework.**

The permit refers to the Department's "Technical Manual for Reclaimed Water for Beneficial Reuse" (Reuse Guidance Manual). This document is a draft document and can be updated at any time. While COA supports the concept of beneficial re-use of fresh water in New Jersey, COA opposes re-use authorization in this permit until the Reuse Guidance Manual has been

finalized by peer review, the Department develops a regulatory framework for beneficial reuse, establishes a Vision Statement for beneficial reuse, and hires a Program Director.

As written, the draft permit is vague concerning reuse plans and specifications on how the plant will meet RWBR requirements. Plans other than infrastructure for beneficial re-use are not detailed. For example, what volume of water is intended to be re-used? Does the facility currently meet requirements for RWBR established by the NJDEP (e.g. of Nitrogen, fecal coliform, and TSS)? The information provided does not clearly show how the facility plans to achieve RWBR requirements for parameters such as TSS and fecal coliform, given that the facility's current average discharge (from 2004-2005<sup>1</sup>) significantly exceeds the Department's re-use criteria. For example, the Permittee reported (for January 2004 through March 2005) a weekly average for fecal coliform of 600 colonies per 100mL.<sup>2</sup> Yet, the RWBR requirements, and consequently the draft permit for reuse, require a 7-day median maximum of 2.2 colonies per 100mL. To require that the Permittee decrease fecal coliform concentrations from 600 to 2.2 colonies per 100mL seems unrealistic. The significant disconnect between the limits established in Part III of this permit<sup>3</sup> and the RWBR requirements<sup>4</sup> undermines the intention of the re-use program by requiring limits that appear unattainable. As a result, the permittee will either be unable to divert the effluent for a public-access beneficial re-use or will violate the reuse requirements and thus jeopardize public health at the re-use location.

In addition, no information is provided in the Notice for toxic parameters and it is not clear why it can be assumed that the treated effluent can be considered safe for the environment and the public.

Once the Reuse Guidance Manual has been finalized by peer review, the Department develops a regulatory framework for beneficial reuse, establishes a Vision Statement for beneficial reuse, and hires a Program Director, a new permit should be applied to the re-use discharge.. In addition, a Public Notice specific to the re-use portion of the effluent must be announced. This Public Notice must include the latest toxin scan results of the effluent and specific estimations of volumes to be used in the re-use program. However, should the re-authorization for reuse proceed without a scientific review of the manual or the development of a regulatory framework, Vision, or Program Director, the permit should at least mandate that the Permittee comply with the most recent version of the Reuse Guidance Manual.

The RWBR manual was initially developed in the early 1990s by DEP and was updated in January 2005. It has remained in a working draft form since its release, although many facilities use the document to implement their water reuse programs.<sup>5</sup> It is open for constant public review and is scheduled for updating every six months.<sup>6</sup> The manual provides recommended system design and water quality limits for four main water reuse applications: public access;

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<sup>1</sup> Permit Summary Table. Page 11 of facility Fact Sheet included in this draft permit # NJ0023809

<sup>2</sup> Permit Summary Table. Page 11 of facility Fact Sheet included in this draft permit # NJ0023809

<sup>3</sup> Part III, Pages 1-2

<sup>4</sup> Part IV, Section 7: d-g , Page 5

<sup>5</sup> Tompkins, Howard, Bureau Chief: Point Source Permitting Region 1, New Jersey Department of Environmental Protection, Interview, 15 July 2004.

<sup>6</sup> New Jersey Department of Environmental Protection, Conference Call with COA staff and Division of Water Quality staff Howard Tompkins, 29 July 2004.

restricted access and non-edible crops; agricultural edible crops; and industrial, maintenance, and construction.<sup>7</sup> However, the manual is only a guideline for reuse programs. While the Technical Manual is a good start, **New Jersey should move forward and adopt a regulatory program that efficiently and effectively encourages conservation, recharges the ground water supply, and maintains a healthy supply of potable water while protecting the public health and environment.**

COA offers the following basic recommendations to NJDEP for its RWBR program. By implementing these basic recommendations, New Jersey can begin to establish a comprehensive program for water reuse.

1. Establish a **Vision Statement** for the Water Reuse Program that establishes a goal to restore and enhance New Jersey's watersheds and to protect the aquatic integrity of New Jersey's groundwater, surface water, and wetland habitats for future generations. The Vision must not provide a rationale to increase development. In doing so, the Program should seek ways to eliminate salt-water intrusions, sustain adequate levels of drinking water, and maintain historic levels of water in bays, creeks, and wetlands. Only if the Vision Statement and its applicable goals are fully accomplished should the reused water be used to expand development.
2. Appoint a **Water Reuse Program Director** to work on water reuse and spearhead the program. Even though NJDEP resources are limited, it is imperative for the Department to appoint a Program Director because coordination among agencies and NJDEP divisions is essential to a successful program. The Water Reuse Program Director would facilitate coordination among various agencies and divisions within NJDEP. Current part-time staff and regional employees working with water reuse issues must be properly educated on the subject, made aware of the program's goals, and encouraged to exchange information.
3. Promulgate **RWBR Regulations** that are protective of sensitive aquatic life and sensitive life stages and that support and enforce water reuse policies in a consistent and effective manner.

### **The Department is taking positive steps toward a better understanding of baseline conditions off the New Jersey coastline.**

Clean Ocean Action congratulates the Department on receiving the EPA grant to develop indicators of ecosystem health for the benthic community in the estuarine and nearshore ocean waters of New Jersey. The cooperative investigation with Rutgers University and other partners in the Mid-Atlantic Coastal Ocean Observing Regional Association (MACOORA) to develop a regional ocean observing system to enable the Department to conduct detailed measurements of dissolved oxygen conditions in New Jersey's ocean waters is also very encouraging.

Data collected during the course of these studies is an important step in adequately assessing the impact of ocean discharges on aquatic organisms and should provide the foundation, that is currently lacking, for making a finding of "no unreasonable degradation" as is required in the Ocean Discharge Criteria regulations at 40 CFR 125. By compiling existing data on benthic communities in nearshore ocean waters of New Jersey, the Department should find that the

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<sup>7</sup> New Jersey Department of Environmental Protection, Division of Water Quality, *Technical Manual for Reclaimed Water for Beneficial Reuse*, January 2003, p. 7-11.

wealth and depth of the decades of data collected by state, federal and local agencies, academia and private interests will expedite the study's conclusion.

To ensure that the ocean ecosystem is not degraded by this discharge the Department will still need to take additional actions to compliment these two studies. These actions include: (1) monitoring of sediment contamination, (2) more frequent monitoring of priority pollutants, (3) publication of monitoring reports and priority pollutant scans in a form that is easy to access by the public, and (4) a phase-out of mixing/impact zones for existing discharges.

Finally, COA applauds the inclusion of a "reopener clause", as it ensures that any relevant findings will be incorporated into the permit in a timely manner.

**In conclusion,**

COA finds that the Department has made significant progress towards being able to adequately assess whether an effluent discharges will not degrade the aquatic ecosystems. The pace of these changes is still not satisfactory and there are still some serious concerns that need to be addressed. The state must: (1) submit requested information to COA, (2) increase monitoring as recommended and provide easy access of information to the public, and (3) rescind the finding of "no unreasonable degradation" until the Rutgers and Benthic Indices studies are complete, along with the collection of additional information necessary to adequately assess impacts to aquatic organisms.

We thank you in advance and look forward to your written reply.

Sincerely,



Cindy Zipf  
Executive Director



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