



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

FEB 29 2008

To All Interested Government Agencies and Public Groups:

In accordance with the U.S. Environmental Protection Agency's (EPA) procedures for the preparation of environmental impact statements (EIS), an environmental review has been performed on the proposed agency action below:

Project Name: Overpeck Creek Relief Sewer
Elimination of Overflow 006

EPA Project Numbers: XP-972618-06 and XP-972680-05

Purpose of Project: The project will eliminate the discharge of combined sewage to Overpeck Creek from Overflow 006, in Englewood, New Jersey, that adversely affects surface water quality in Overpeck Creek, the Hackensack River, and Newark Bay. It is being implemented in accordance with the terms of an Administrative Consent Order between the New Jersey Department of Environmental Protection (NJDEP) and the Bergen County Utilities Authority (BCUA).

Project Originator: Bergen County Utilities Authority

Project Location: Englewood, Leonia, Palisades Park, Ridgefield, and Little Ferry in Bergen County, New Jersey

Project Description: The proposed project involves installation of approximately 28,400 linear feet of sewer pipe ranging from 42 to 72 inches in diameter, from Englewood to the BCUA's Wastewater Treatment Facility in Little Ferry. It will alleviate the wet weather flow overloads on the existing Overpeck Valley Trunk Sewer.

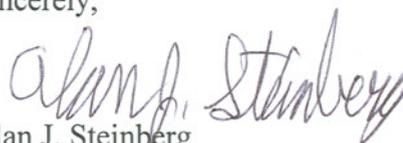
Estimated Eligible Project Costs: \$68,508,803

EPA Grant: \$ 1,051,800

Our environmental review of this project indicates that no significant adverse environmental impacts will result from the proposed action. Consequently, we have made a decision not to prepare an EIS on the project. This decision is based on a site visit and a careful review of the project's environmental information document and other supporting information. All of these documents, along with the Environmental Assessment (copy enclosed), are on file at the offices of the EPA Region 2 and the Bergen County Utilities Authority, where they are available for public scrutiny upon request. The EA is also available on EPA Region 2's website at <http://www.epa.gov/region02/spmm/r2nepa.htm>.

Comments supporting or disagreeing with this decision may be submitted to EPA for consideration. All comments must be received within 30 calendar days of the date of this finding of no significant impact (FNSI). Please address your comments to: Grace Musumeci, Chief, Environmental Review Section, at the above address. No administrative action will be taken on the project for at least 30 calendar days after the date of this FNSI.

Sincerely,

A handwritten signature in cursive script that reads "Alan J. Steinberg". The signature is written in dark ink and is positioned above the printed name.

Alan J. Steinberg
Regional Administrator

Enclosure

Environmental Assessment

I. Project Identification

Name of Project: Overpeck Creek Relief Sewer
Elimination of Overflow 006

EPA Project Numbers: XP-972618-06 and XP-972680-05

Grant Applicant: Bergen County Utilities Authority (BCUA)
P.O. Box 9
Foot of Mehrhof Road
Little Ferry, New Jersey 07643

Project Location: Englewood, Leonia, Palisades Park, Ridgely, and Little Ferry, in Bergen County, New Jersey

II. Background

The Bergen County Utilities Authority's (BCUA) wastewater service area consists of all or part of 46 municipalities, servicing a population of approximately 543,000 people in the northeastern portion of the State of New Jersey (Figure 1).

Wastewater Service Area Location Plan

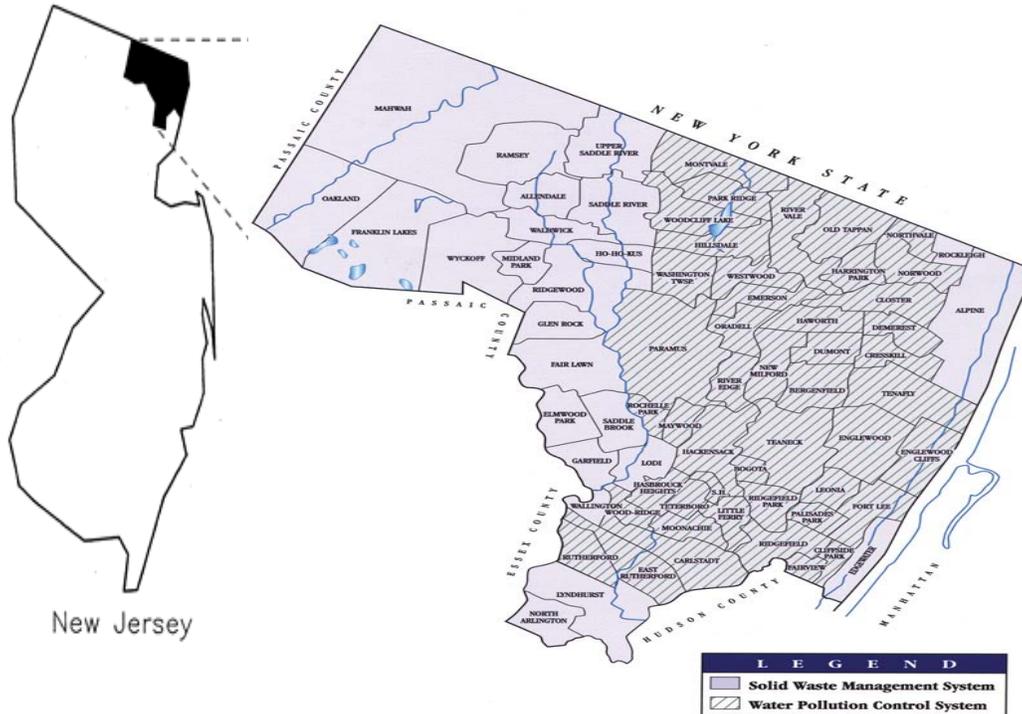


Figure 1 – BCUA Service Area

The BCUA Wastewater Treatment Facility (WWTF), which has a design capacity of 109 million-gallons-per-day (MGD), is located on the Hackensack River in Little Ferry, New Jersey (Figure 2). Overpeck Creek flows into the Hackensack River near the WWTF.



Figure 2 - BCUA Wastewater Treatment Facility

Wastewater from the service area's sanitary sewers and combined sewers is conveyed to the WWTF through a system of approximately 108 miles of gravity sewers, pressure sewers, and pumping stations. A major component of the BCUA's wastewater conveyance system is the Overpeck Valley Trunk Sewer (OVTS). It was constructed of circular reinforced concrete pipe in 1955 and ranges from 36 inches to 60 inches in diameter. The OVTS extends approximately 27,300 linear feet from the vicinity of Overflow 006 in Englewood (Figure 3), through Leonia, Palisades Park, and Ridgefield, to the WWTF in Little Ferry.

III. Purpose and Need for the Project

The OVTS frequently reaches its capacity during wet weather. Consequently, excess combined sewage overflows via Overflow 006 (Figures 4 and 5), resulting in contamination of Overpeck Creek, the Hackensack River, and Newark Bay. An Administrative Consent Order (ACO) between the N.J. Department of Environmental Protection (NJDEP) and the BCUA, signed in 1991 and amended in 2005, requires that this situation be remedied by eliminating discharges to Overpeck Creek from Overflow 006.

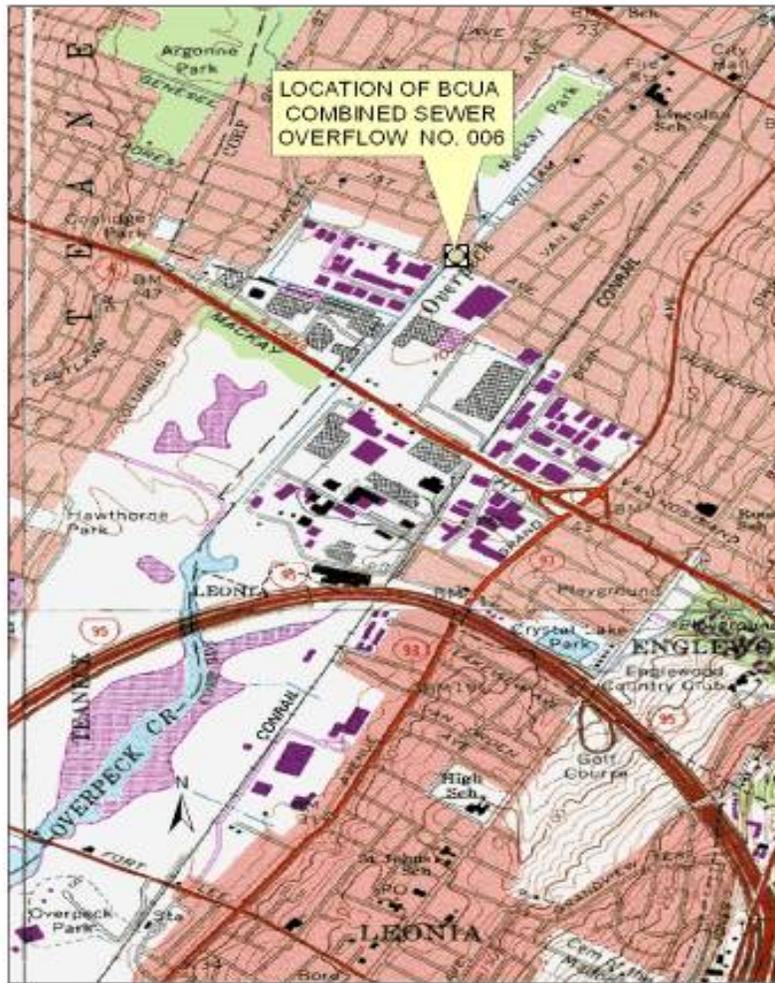


Figure 3 - Location of Overflow 006 in Englewood, NJ



Figure 4 - Overpeck Creek (near Overflow 006)



Figure 5 - Overflow 006 Flap Gate

IV. Description of the Proposed Project

The existing OVTS has insufficient capacity to convey the volume of wastewater needed to eliminate Overflow 006. Consequently, the BCUA developed plans to construct a new pipe parallel to the existing pipe and, thereby, convey excess flows to the BCUA's WWTP for treatment prior to being discharged to surface waters (Figure 6).

The proposed relief sewer consists of approximately 28,400 linear feet (approximately 5.4 miles) of pipe ranging from 42 to 72 inches in diameter. Similar to the existing OVTS, the route crosses roads, railroads, streams, utilities, and the Hackensack River. Most of the route follows the right-of-way of the existing OVTS right-of-way along the Conrail tracks and other previously disturbed areas to avoid impacts to important natural resources. Approximately 6,000 linear feet of pipe will be installed via the micro-tunneling installation method, with the remaining 22,400 linear feet installed by conventional open-cut techniques.

V. Alternatives

Alternative 1 - Construction of the Overpeck Valley Relief Sewer (The Selected Alternative) – Under this alternative, described above, the existing pipe will remain in service while a new parallel relief sewer is installed. Upon completion of the project, the existing pipe will remain in service. Connections between the existing pipe and the new pipe will allow for a sound long-term solution for the combined sewer overflow problem. The BCUA will be in compliance with the ACO and with its New Jersey Pollutant Discharge Elimination System (NJPDES) permit. This plan was determined to be the most cost effective and environmentally sound solution to accomplish water quality goals and, as a result, was selected.

Alternative 2 - Construction of a Force Main and Pumping Stations - This alternative involves construction and operation of two new pump stations. These pump stations would pump sewage in excess of the existing sewer's capacity to the WWTP via a single 24-inch to 42-inch diameter pipe. To implement this alternative, the BCUA would be required to contend with issues related to siting, operating, and maintaining these two pumping stations. Furthermore, this alternative would require electrical and mechanical systems sized to handle the large peak volumes of wastewater, while the proposed project would rely on gravity to convey the flow. This alternative was determined to be not cost effective and, consequently, was not selected.

Alternative 3 - Construct a larger parallel replacement sewer - This alternative involves constructing a new larger-diameter parallel pipe with sufficient capacity for the single pipe to relieve the existing surcharged condition, and abandoning the existing pipeline. Installation of the larger pipe would necessarily be more expensive than the proposed project; and the existing pipe is still in relatively good condition and has a significant service life remaining. Consequently, this alternative was determined to be not cost effective and not selected.



Figure 6 - Overpeck Creek Relief Sewer - Project Location

Alternative 4 - Remove and replace the existing OVTS with a larger pipe - This alternative would remove the existing OVTS and construct a replacement pipe of larger capacity in the same alignment as the existing pipe. The existing OVTS is in relatively good condition, however, and still has a significant service life. Further, it would be difficult and expensive to construct a new pipe while keeping the system in service to reliably handle wastewater flows during construction. This alternative was also determined to be not cost effective and, as a result, was not selected.

Alternative 5 - Construct overflow retention facilities - This alternative would construct a structure to store peak surcharges, and a pumping station to return the flows to the system once peak flows had subsided. This alternative would require energy for pumping, maintenance of a pump station, treatment for the stored effluent, and odor control. This alternative was determined to be not cost effective. As a result, this alternative was not selected.

Alternative 6 - No Action - Under the no action alternative, the relief sewer would not be built and sewage would continue to overflow during wet weather. Overflow 006 would continue to contaminate Overpeck Creek and downstream water bodies, and the BCUA would not be in compliance with its New Jersey Discharge Elimination System Permit and the requirements of its Administrative Consent Order. As a result, this alternative was rejected.

VI. Environmental Consequences

- A. Wetlands/Surface Water Quality Issues – The U.S. Army Corps of Engineers has determined that the overall project will impact .005 acre of waters of the United States, and will temporarily disturb an additional 0.3 acre of waters of the United States. The proposed project will, however, provide long term water quality improvements through eliminating the discharge of contaminants to Overpeck Creek from combined sewer overflows. All of the water bodies in the project area are tidally influenced. Overpeck Creek has been classified by the NJDEP as general surface water, non-trout, suitable for a wide variety of other fish. The designated uses of these saline waters include maintenance and migration of fish populations, maintenance of wildlife, and secondary contact recreation.

Construction of the project requires installation of a pipeline which crosses the Hackensack River (Figure 7) as well as seven tributaries of Overpeck Creek. All of this work will be performed in accordance with the requirements and conditions of a U.S. Army Corps of Engineers Permit (No. 2006-00485) issued pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act.

The pipe crossing of the Hackensack River, in particular, will be conducted in accordance with the construction methods specified in the Corps permit to avoid environmental impacts. The pipe will be installed underwater using steel sheeting to limit the extent of excavated material disturbance, and with piles driven into the riverbed to support the 72-inch pipe. River traffic will be maintained by requiring that a minimum of 100 feet of the 200-foot wide Federal Navigation Channel remain open to allow the safe passage of vessels at all times.

The proposed construction will temporarily disturb aquatic habitats. However, floating turbidity barriers will be in place, and the river bed will be restored to preconstruction conditions. The water quality of the Hackensack will be temporarily affected due to turbidity during excavation and backfilling operations. The existing vegetation on the banks will be disturbed for pipe connection and restored to original conditions.

The dredged material will be temporarily placed on uplands, and all excess water will be directed to a holding tank or barge and allowed to settle for a minimum of 24 hours. No water may be discharged from the holding tank or barge unless it meets the standards specified in the NJDEP's water quality certification for the project. Dredged material will also be tested, and any dredged material found to be unsuitable for use as backfill on the project will be hauled to an approved landfill site for appropriate disposal. No excess or unsuitable dredged material will be disposed of at the project site.

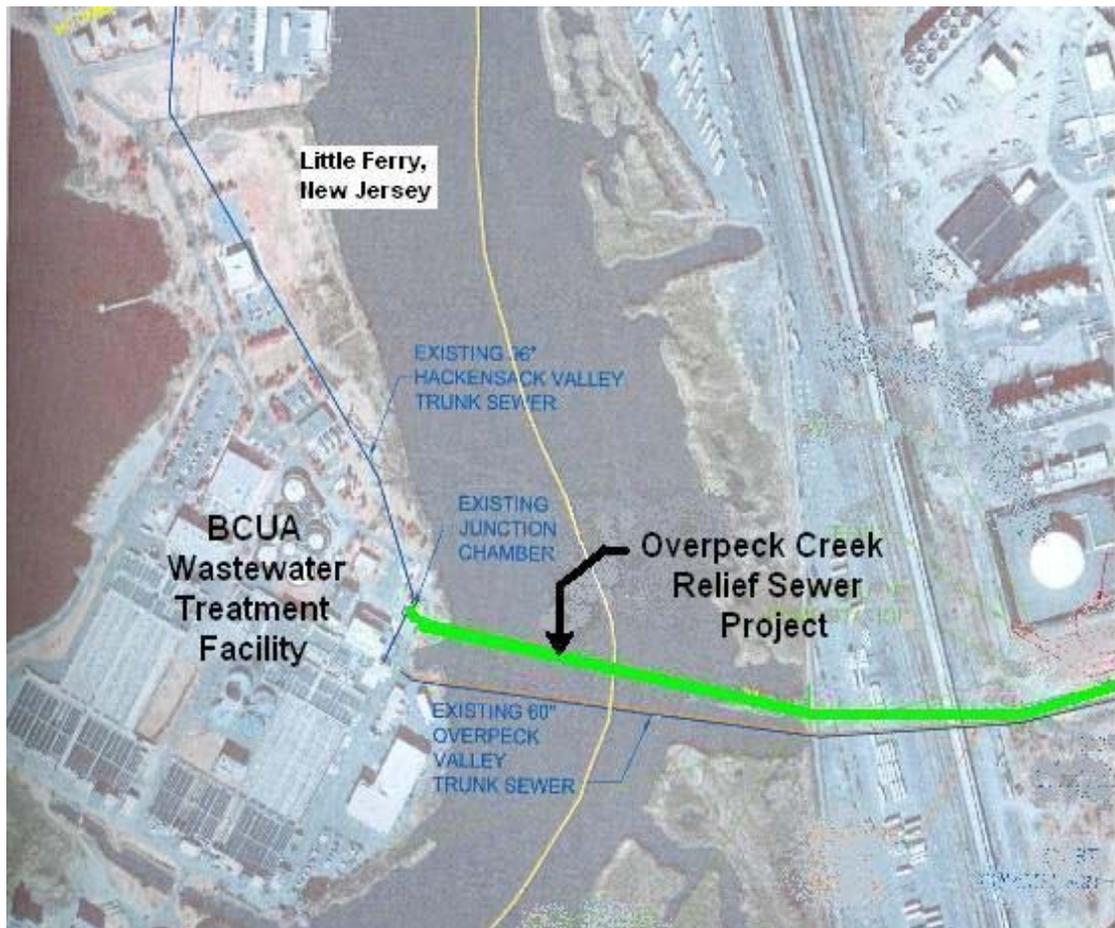


Figure 7 - The Hackensack River Crossing

Impacts resulting from the other stream crossings will be minimized by utilizing micro-tunneling construction methods to install the pipes beneath the streams. As a result, disturbances to these streams will be short-term and temporary. Areas needed for staging the micro-tunneling operations will be restored following construction.

B. Air Quality - Because the project is funded with a federal grant, it is subject to the general conformity air regulations (40 CFR 93 Subpart B). The project is located in Bergen County, New Jersey, which is part of the New York-Northern New Jersey-Long Island, NY-NJ-CT, moderate 8-hour ozone nonattainment area, a particulate matter less than 2.5 microns in diameter (PM_{2.5}) nonattainment area, and a carbon monoxide (CO) maintenance area. Accordingly, EPA conducted an analysis of the pollutant emissions from construction of the project.

Emission estimates were based on emission factors taken from a number of sources and on vehicle/equipment types and activity levels supplied by the project sponsor. The results of the general conformity applicability analysis indicate that the project's estimated construction-related emissions of nitrous oxide (NO_x), volatile organic compounds (VOC), CO, PM_{2.5} and sulfur dioxide (SO₂) are significantly less than the applicable general conformity "deminimis" threshold values. Therefore, the project is presumed to conform to the State Implementation Plan, and no significant long-term impacts to air quality are anticipated.

OVERPECK CREEK RELIEF SEWER PROJECT SUMMARY OF ESTIMATED ANNUAL CONSTRUCTION EMISSIONS					
POLLUTANT:	NO_x	VOC	CO	PM_{2.5}	SO₂
OFF-ROAD CONSTRUCTION EMISSIONS (tons/yr)	0.092	0.017	0.076	0.012	0.003
ON-ROAD CONSTRUCTION EMISSIONS (tons/yr)	0.004	0.000	0.002	0.000	0.000
TOTAL CONSTRUCTION EMISSIONS (tons/yr)	0.096	0.017	0.078	0.012	0.003
GENERAL CONFORMITY THRESHOLD (tons/yr)	100	50	100	100	100
EMISSIONS AS A PERCENTAGE OF "DEMINIMIS" THRESHOLD	0.10%	0.03%	0.08%	0.01%	0.00%

Short-term construction-related impacts to air quality in the project area include fugitive dust emissions and emissions from construction equipment. Mitigation techniques include but are not limited to:

- Wetting or chemically treating exposed earth during construction.
- Limiting construction activities during extremely windy and/or dry conditions.
- Covering dust-producing materials being transported to and from the area.
- Keeping trucks and other construction equipment clean and properly maintained
- Implementing a traffic management plan to minimize delays, and routing traffic away from residential areas and other sensitive receptors.

- C. Flood Plains - The project will not exert significant physical impacts on the floodplain; excavation will not be extensive and the ground surface will be restored within a short time. Flood elevations will not change as a result of the project.
- D. Transportation – Standard maintenance and protection of traffic measures will be implemented to reduce traffic disturbances during construction, but some minor short-term delays are likely in areas where the pipe main needs to be installed within the roadway pavement. There will, however, not be any permanent or long-term transportation impacts.
- E. Noise - No new long-term sources of noise will be created as a result of project implementation. There will, however, be some short-term, localized noise impacts from construction equipment that may temporarily impact residents as construction proceeds through their areas. These impacts are unavoidable but will be minimized by requiring construction vehicles to be equipped with proper mufflers, limiting the number of machines in operation, and following local noise ordinances.
- F. Endangered/Threatened Species - The U.S. Fish and Wildlife determined, in a letter dated March 16, 2007, that except for an occasional transient bald eagle, no federally listed or proposed threatened or endangered species are known to exist in the project impact area. Consequently, no impacts to endangered/threatened species are anticipated.
- G. Cultural Resources - A Stage 1A/1B Cultural Resources Survey was conducted in 2006. It included background research and subsurface testing along the alignment. These tests were generally excavated to subsoil, and yielded modern twentieth-century artifacts, such as glass, metal, nails, plastic, Styrofoam, and aluminum cans. The survey concluded that the project area consists mainly of highly disturbed fill soils, and soils that were previously disturbed during the installation of various utilities. On the basis of this survey, EPA has determined that the proposed construction will have no effect on resources on or eligible for nomination to the National Register of Historic Places.
- H. Population and Flow Projections - The population served by the BCUA is projected to increase over the next 20 years, from 542,411 to 594,734, regardless of whether the proposed project is constructed. The wastewater volume conveyed to the WWTP by the new relief sewer is dependent upon the amount of stormwater runoff, and infiltration and inflow to the sewer system, rather than on population. Thus, the project is not expected to impact population growth in the area.
- I. Socio-economics - The average Bergen County Median Annual Household Income (MAHI) in 2006 was approximately \$70,536. The current annual wastewater user charge is approximately \$211 per household which represents 0.30 percent of the MAHI. The BCUA anticipates a rate increase of approximately \$27 per household as a result of project implementation, bringing the user charge to \$238 per household per year, or 0.34 percent of the 2006 MAHI. This charge is not considered excessive.

- J. Environmental Justice - The EPA Region 2 Environmental Justice (EJ) analysis methodology supports *EPA Region 2's Interim Policy for Environmental Justice*. A specific community that is under evaluation for inclusion in the Region's EJ program is referred to as the Community of Concern (COC).

The evaluation process compares the respective levels of minority/low-income representation and environmental burden in the COC to those of a statistical reference area.

Demographic Analysis - EPA's demographic analysis utilizes a Geographic Information System (GIS) to estimate the percent minority and percent poverty for the community of concern and compares them to appropriate statistical references.

<u>Demographic Indicator</u>	<u>NJ Threshold</u>	<u>COC Indicator</u>	<u>Setting</u>
Percent Minority:	48.52	47.63	Urban
Percent Poverty:	18.58	7.3	Urban

Environmental Burden - The community's existing environmental burden was similarly estimated by EPA through the use of GIS analysis. EPA uses GIS analysis and the concept of an Environmental Load Profile to compare communities' present environmental load to statewide-derived thresholds. To accomplish this, EPA uses the following three indicators: Toxic Release Inventory, Facility Density, and Air Toxics.

<u>Environmental Load</u>	<u>NJ Threshold</u>	<u>COC Indicator</u>	<u>Ranking</u>
TRI Indicator:	7.13	16.11	8
Facility Density Indicator:	75	843.95	8
Air Toxics -			
Cancer Indicator:	40.57	68.58	7
Non-cancer Indicator:	5.8	14.43	8

Summary - The environmental load analysis indicates that the existing environmental burden of the COC is significantly greater than the New Jersey average. With respect to demographics, however, analysis of the project area indicates that minorities compose about 47.63 percent of the local community (compared to 48.52 percent, which EPA uses to determine minority areas in urban areas of New Jersey), and that less than 7.3 percent of the local population has income that is below the poverty level (compared to 18.58 percent, the percentage that EPA uses to identify low income urban in New Jersey). Accordingly, the project area does not meet the EPA criteria for being classified an Environmental Justice area and no further environmental justice analyses are necessary.

While the COC does bear an existing disproportionate environmental burden, this project will help alleviate the existing environmental burden by eliminating overflows of combined sewage which result in contamination of Overpeck Creek.

Further, because the relief sewer will be located entirely underground, it will not result in any additional impacts on the community.

Additional information about how demographics and environmental burden are used in Environmental Justice analyses can be found on EPA's website, at <http://www.epa.gov/region02/ej/>.

VII. Coordination of Environmental Review

Public Participation

- Notice of hearing was published in Bergen Record and Herald News on May 3, 2006
- All property owners within 200 feet were notified by certified mail
- Information was available at BCUA Administration Building
- Public hearing was held on June 8, 2006
- No public comments were received

Federal, State and Local Agencies Notified/Consulted

- Bergen County Soil Conservation District
- Conrail
- New Jersey Department of Environmental Protection
- New Jersey Department of Transportation
- New Jersey Meadowlands Commission
- New Jersey Turnpike Authority
- U.S. Fish and Wildlife Service
- U.S. Army Corps of Engineers

VIII. Reference Documents

- A. *Environmental Report, Construction of Overpeck Valley Relief Sewer, Bergen County Utilities Authority*, Hatch Mott MacDonald, December 2005
- B. *Bergen County Utilities Authority Wastewater Collection System Improvements, Environmental Information and Project Workplan Report*, Malcolm Pirnie, June 16, 2006
- C. *Level 2 Environmental Assessment, Overpeck Valley Trunk Sewer: Elimination of Overflow 006*, Malcolm Pirnie, March 2006
- D. *Elimination of Overflow 006, Solution Alternatives Review and Recommendation, Final Report to Bergen County Utilities Authority*, Maguire Group, Inc., April 5, 2004
- E. *Bergen County Utilities Authority, Overpeck Valley Relief Sewer, Description of Proposed Route*, Hatch Mott MacDonald, September 2005
- F. *Phase IA/IB Archaeological Survey. Overpeck Valley Relief Sewer Project. Boroughs of Little Ferry, Ridgefield, Palisades Park, and Leonia, and City of Englewood. Bergen County, New Jersey*, Gerry Scharfenberger, Ph.D., and Emily F. Vincent, Richard Grubb & Associates, Inc., July 2006
- G. *U.S. Fish and Wildlife Service, New Jersey Field Office, letter to Grace Musumeci, USEPA*, Annette Scherer and John C. Hall, March 16, 2007

- H. *Waterfront Development, Stream Encroachment, Freshwater Wetlands General Permit No. 2, Water Quality Certificate issued to Bergen County Utilities Authority, N.J.D.E.P. Division of Land Use Regulation, April 20, 2006*
- I. *Environmental Appraisal of the Overpeck Valley Relief Sewer and preliminary decision to assist the project under the N.J. Environmental Infrastructure Financing Program, N.J.D.E.P. Municipal Finance Element, July 21, 2006*
- J. *Department of the Army Permit No. 2006-00485, issued to BCUA pursuant to Section 10 of the Rivers and Harbors Act, and Section 404 of the Clean Water Act, U.S. Army Corps of Engineers, New York District, September 13, 2006*