

**Appendix B - Responses to Substantive Comments on the Final EIS**

Responses to the comments were prepared by DNREC staff unless cited otherwise.

**1. National Marine Fisheries Services, NOAA, Department of Commerce**

<u>Comment Summary</u>	<u>Response</u>
Commenter expressed concern that the ocean outfall may cause the loss of fishery habitat and resources.	<p>The Environmental Impact Statement (EIS) covered, in detail, the project’s potential impact on fish habitat and resources. Construction techniques, such as horizontal directional drilling, will be utilized to minimize the negative impact on fish habitat and other natural resources.</p> <p>The recommendations from the National Marine Fisheries Service that minimize the construction impacts will be incorporated into the construction documents and be the appropriate DNREC regulatory action (e.g., DNREC permits and/or federal consistency determination).</p>
Commenter expressed concern that a point source discharge may affect essential fish habitat (EFH) managed species and prey.	Treated effluent from the Rehoboth Beach Waste Water Treatment Plant (RBWWTP) will meet or exceed Delaware’s Surface Water Quality Standards. Sophisticated water quality modeling demonstrated that more than adequate mixing occurs within a short distance from the diffuser. These results are included in the EIS.
Commenter expressed concern that extreme discharge velocities may cause scouring and create turbidity plumes	The EIS shows extensive analysis has been done on the proposed diffuser. Exit velocity from the diffuser is one of the factors considered that will ultimately be considered in the diffuser design.

**2. Delaware Chapter of the Sierra Club – Amy Roe, PhD**

<u>Comment Summary</u>	<u>Response</u>
Commenter expressed concern that the RBWWTP may not be able to completely remove pharmaceutical agents from the wastewater. If this is the case, pharmaceutical contamination could impact the environment and the public.	As a requirement of the scope, the EIS addressed pharmaceuticals in great detail. Currently, there are no criteria for pharmaceuticals in neither federal nor state water quality standards. The Rehoboth Beach WWTP is currently producing an effluent of a quality that exceeds all current water quality standards necessary to permit an ocean outfall. Treatment of pharmaceuticals in wastewater is an emerging issue and if they become regulated, the City will have to address additional treatment at that time.
Commenter expressed concern that data on benthic life was not collected for analysis in the EIS. Suggested utilizing the nearby South Bethany ocean outfall as a comparable study	Evaluating impacts to benthic life was not required per the scope of the EIS, and no benthic data is available for the South Bethany ocean outfall. The Environmental Protection Agency (EPA) has collected ocean bacteria data in the area; however, no benthic data was collected.

<p>site.</p>	<p>The impacts from dredging on the benthic community are expected to be temporary. The construction plan is proposing to directional drill as far as possible to minimize dredging.</p>
<p>Commenter expressed concern that the studies used in the EIS regarding the construction impacts on phytoplankton were not local enough or scientific.</p>	<p>The EIS notes that short-term impacts may occur due to increased turbidity from construction. However, this impact will be temporary; no long-term impacts are expected.</p>
<p>Commenter expressed concern that the EIS does not adequately address the impacts—noise pollution and migratory—that may occur to essential fish habitat as a result of construction.</p>	<p>The EIS notes that there will be seasonal restrictions on construction. The acoustic levels due to construction are not expected to create an impact due to the minimal use of dredging and short duration of the construction. The City will be required to coordinate with the DNREC Division of Fish and Wildlife and the National Marine Fisheries Service to ensure that all seasonal restrictions are complied with.</p>
<p>Commenter expressed concern that the EIS does not adequately address impacts to endangered species, and it does not show that the outfall pipe will not disrupt the Atlantic sturgeon’s migratory route.</p>	<p>In conjunction with the U.S. Army Corps of Engineers permitting process, the City is required to do an Endangered Species Act (ESA) Section 7 consultation with the National Marine Fisheries Service. If the ESA list is updated during the design period, the EIS will be modified to include the most up-to-date list.</p> <p>The EIS contains a map showing the approximate range of the Atlantic sturgeon; it extends from Florida to Maine. The exposed portion of the outfall will be negligible when compared to this range; therefore, disruption of the Atlantic sturgeon’s migratory route is not anticipated. Because the outfall pipe will be installed via directional drilling to the extent technologically possible, most of the outfall will not interfere with the migratory route.</p>
<p>Commenter expressed concern that the acoustic ability of marine mammals will be impacted during construction and concern that the EIS does not cover in sufficient detail ways minimize impacts to some marine mammals.</p>	<p>The EIS notes that there will be seasonal restrictions on construction. The acoustic levels due to construction are not expected to create an impact due to the minimal use of dredging and short duration of the construction.</p> <p>The City will be required to have a construction plan to minimize impacts to marine mammals, fish, and reptiles.</p> <p>The City will be required to coordinate with the DNREC Division of Fish and Wildlife and the National Marine Fisheries Service (NMFS) to ensure that all seasonal restrictions are complied with.</p>
<p>Commenter expressed concern that the Coastal Zone will be impacted by the project.</p>	<p>The proposed action is not subject to the Delaware Coastal Zone Act as this state law contains an exemption for public sewage treatment plants. The project will be reviewed pursuant to the federal consistency regulations (15 CFR 930) of the Coastal Zone Management Act.</p>
<p>Commenter expressed concern that the Final EIS was incomplete, inadequate,</p>	<p>The EIS review process cannot extend indefinitely. Interested parties should have participated in the public scoping process to include their suggestions, or</p>

and needed to be revised.	provided comment on the draft EIS during the comment period. The Final EIS has met all the requirements of the scope and has responded to all substantive comments on the Draft EIS; thus complying with the environmental review procedures.
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**3. Marine Education, Research, and Rehabilitation Institute Inc. (MERR) – Suzanne Therman, Executive Director**

<u>Comment Summary</u>	<u>Response</u>
<p>Commenter expressed concern that treated effluent the RBWWTP may contain harmful levels of chlorine, pharmaceuticals, endocrine inhibitors, caffeine, PCBs, and other non-biodegradable anthropogenic toxins that could negatively impact marine life and human health.</p>	<p>The Rehoboth Beach WWTP is currently producing an effluent whose quality exceeds all current water quality standards necessary to permit an ocean outfall. When regulations require treatment of currently unregulated contaminants, the City will address treatment of those contaminants at that time.</p> <p>The Rehoboth Beach WWTP treatment process includes both chlorination and de-chlorination prior to discharge.</p> <p>The City will also comply with a daily flow limitation as part of its wastewater discharge permit, currently approximately 3.5 million gallons per day.</p>
<p>Commenter suggests constructed wetlands as an alternative to the ocean outfall.</p>	<p>The EIS did not originally investigate constructed wetlands as an alternate disposal method. But because of the review process, the EIS was updated to evaluate Constructed Wetlands.</p> <p>Constructed Wetlands have been used in the U.S. as an alternative to complex mechanical WWTFs designed to provide tertiary treatment for nutrient removal. Natural wetlands are typically prohibited from being used for wastewater treatment because they are considered “waters of the United States”, and subject to protection under the Clean Water Act. Constructed Wetlands are typically used to polish primary treated wastewater or lagoon treated wastewater. Constructed Wetlands are not commonly used to further reduce nitrogen and phosphorus concentrations from mechanical WWTFs that already provide tertiary treatment for nutrient removal like the Rehoboth Beach WWTF.</p> <p>There are numerous agricultural sites within 5 to 7 miles of the Rehoboth Beach WWTF that could be investigated as potential sites for a Constructed Wetlands system. It must be noted; however, that following nutrient polishing from a Constructed Wetland, the polished effluent will still need to be disposed of. Either a new NPDES discharge point to the Rehoboth Bay would have to be permitted, or a land-based disposal system, employing either spray irrigation or Rapid Infiltration Basins (RIBs), or a combination of both, would have to be developed to dispose of the effluent. A RIB system would require an additional 50 to 150 acres, provided a suitable site can be identified; and</p>

	<p>over 300 acres would be required to spray irrigate the effluent from a Constructed Wetland with a design flow of 3.5 MGD. The 1998 Nitrogen and Phosphorus Total Maximum Daily Load (TMDL) prohibit new point source discharges to Rehoboth Bay, Indian River, and Indian River Bay. Therefore, the TMDL would need to be amended to allow a new discharge.</p> <p>Based on the already high levels of nutrient removal achieved by the Rehoboth Beach WWTF, concerns that additional nutrient removal using a Constructed Wetland would not occur, and the need for an alternative disposal option such as a new NPDES permit or land based disposal system, DNREC staff do not believe that a Constructed Wetlands system can consistently meet water quality standards for Delaware’s Inland Bays. Consequently, staff does not recommend pursuing this option for the City of Rehoboth Beach at this time.</p>
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**4. Marine Mammal Stranding Center – Robert Schoelkopf, Founding Director**

<u>Comment Summary</u>	<u>Response</u>
<p>Commenter expressed concern that the treated effluent discharge is so close to shore that it may dilute the saltwater and adversely affect the food supply for endangered marine mammals and sea turtles.</p>	<p>Sophisticated water quality modeling demonstrated that more than adequate mixing occurs within a short distance from the diffuser. These results are included in the EIS. The EIS also addresses salinity, and modeled results show that the outfall will not significantly lower seawater salinity.</p> <p>Additionally, the City is required to do an ESA Section 7 consultation with the National Marine Fisheries Service prior to construction.</p>

**5. Delaware Riverkeeper Network – Maya van Rossum, the Delaware Riverkeeper**

<u>Comment Summary</u>	<u>Response</u>
<p>Commenter expressed concern that the ocean outfall project may negatively impact the Atlantic sturgeon and that the EIS does not have a complete foundation for its conclusions regarding the Atlantic sturgeon. Commenter recommends exercising caution until all relevant information is available regarding the Atlantic sturgeons habitat.</p>	<p>The ocean outfall’s potential impact to the Atlantic sturgeon was based on the information available during the EIS process. If new information critical to the protection of Atlantic sturgeon becomes available, the National Marine Fisheries Service will have opportunity to inform the City before construction begins. The City is required to do an ESA Section 7 consultation with the National Marine Fisheries Service prior to construction.</p> <p>The Rehoboth Beach WWTP is currently producing an effluent whose quality exceeds all current water quality standards necessary to permit an ocean outfall.</p>

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**6. Clean Ocean Action – Heather Saffert, PhD, Staff Scientist**

<u>Comment Summary</u>	<u>Response</u>
<p>Commenter expressed concern that the nutrients from the ocean outfall will contribute to excessive algal blooms and increases in nuisance species, such as jellyfish.</p>	<p>The Rehoboth Beach WWTP is currently producing an effluent of a quality that exceeds all current water quality standards necessary to permit an ocean outfall. Additionally, in order to make progress toward eliminating its discharge, and comply with a 2002 Consent Order, the Rehoboth Beach WWTP underwent an upgrade and significantly reduced its nitrogen and phosphorus loads to the Lewes-Rehoboth Canal and Rehoboth Bay; that level of treatment will continue.</p>
<p>Commenter expressed concern that the treated effluent may contain pharmaceuticals that will negatively impact marine life.</p>	<p>As a requirement of the scope, the EIS addressed pharmaceuticals in great detail. Currently there are no criteria for pharmaceuticals in neither federal nor state water quality standards. The Rehoboth Beach WWTP is currently producing an effluent of a quality that exceeds all current water quality standards necessary to permit an ocean outfall. Treatment of pharmaceuticals in wastewater is an emerging issue and if they become regulated, the City will need to address additional treatment at that time.</p>
<p>Commenter expressed concern that chlorine in the treated effluent will have a negative impact on the environment.</p>	<p>The Rehoboth Beach WWTP treatment process includes both chlorination and de-chlorination prior to discharge.</p>
<p>Commenter expressed concern that the ocean outfall will negatively impact essential fish habitat and endangered and threatened species in the coastal waters.</p>	<p>The potential effects of the outfall on the Essential Fish Habitat and Endangered Species have been addressed in the EIS. The EIS also notes that there will be seasonal restrictions on construction. Because the outfall pipe will be installed via directional bore, the impact to essential fish habitat and endangered and threatened species is expected to be minimal.</p> <p>The City will be required to coordinate with the DNREC Division of Fish and Wildlife and the National Marine Fisheries Service to ensure that all seasonal restrictions are complied with, and they are required to do an ESA Section 7 consultation with the National Marine Fisheries Service prior to construction.</p>
<p>Commenter expressed concern that raw sewage will be discharged during large storm events and treatment plant breakdowns.</p>	<p>The EIS addresses the worst case scenario: a release of untreated wastewater. Although a release of untreated wastewater is highly unlikely, the effluent would still meet water quality standards as demonstrated by the dilution modeling.</p> <p>Operating during large storm events has not been a problem for the</p>

	<p>RBWWTP. In fact, it operated with no incident during the recent Hurricane Sandy. This supports the EIS's premise that a catastrophic overflow is highly unlikely. Also, the City of Rehoboth is undergoing a WWTP upgrade project to improve the reliability of the plant.</p>
<p>Commenter expressed concern that the ocean outfall will have a negative impact on recreational uses and tourism.</p>	<p>The project's impact on tourism is addressed in the EIS. In an effort to minimize impact to tourism, construction activities that impact tourists during the peak tourism season will be avoided.</p> <p>As clean beaches and water is a draw to potential vacationers, the City will continue to meet or exceed all water quality standards. The nearby Town of South Bethany did not experience a noticeable difference in tourism after construction of the South Coastal ocean outfall. It is highly unlikely that tourists are even aware of the South Coastal outfall and there is no reason to believe that visitors to the City of Rehoboth Beach will be any different.</p>
<p>Commenter questioned whether impacts of removing freshwater from the Rehoboth Bay have been adequately considered and assessed.</p>	<p>As noted in the EIS, the purpose of this project is to improve Rehoboth Bay water quality and comply with a 1998 Nitrogen and Phosphorus Total Maximum Daily Load (TMDL) requiring the elimination of the Rehoboth Beach WWTP discharge. This goal was reaffirmed by a December 2002 consent order.</p>

**7. Surfrider Foundation, Delaware Chapter – Russell Merritt, Secretary**

<u>Comment Summary</u>	<u>Response</u>
<p>Commenter expressed concern that the Final EIS is lacking, insufficient, incomplete, and out of compliance with Delaware's own Administrative Code.</p>	<p>The EIS process allowed opportunity for Federal, State, and local agencies and the public to comment. It was completed in accordance with the State's Environmental Review Procedures. In regards to non-compliance with Delaware's Administrative Code, no further explanation of the allegation was included in the letter so it is impossible to respond.</p>
<p>Commenter expressed concern that the outfall will negatively impact tourism because of potential raw sewage spills and a perceived drop in water quality at the beaches.</p>	<p>The City will continue to meet or exceed all water quality standards. The nearby Town of South Bethany did not experience a noticeable difference in tourism after construction of the South Coastal ocean outfall. It is highly unlikely that tourists are even aware of the South Coastal outfall and there is no reason to believe that visitors to the City of Rehoboth Beach will be any different.</p> <p>The EIS addresses the worst case scenario: a release of untreated wastewater. Although a release of untreated wastewater is highly unlikely, the effluent would still meet water quality standards as demonstrated by the dilution modeling.</p>

	<p>Operating during large storm events has not been a problem for the RBWWTP. In fact, it operated with no incident during the recent Hurricane Sandy. This supports the EIS's premise that a catastrophic overflow is highly unlikely. Also, the City of Rehoboth is undergoing a WWTP upgrade project to improve the reliability of the plant.</p>
<p>Commenter questions the EIS on the feasibility of land applying the treated effluent.</p>	<p>DNREC supports land based application when feasible. The EIS makes the case that contiguous land necessary for land application is not available nor within such proximity to the WWTP to make it practical. The Department has funded regional planning studies that included Rehoboth Beach, Sussex County, and also private wastewater providers.</p>
<p>Commenter expressed concern that the ocean outfall project may negatively impact the Atlantic sturgeon. Commenter also recommends exercising caution until all relevant information is available regarding the Atlantic sturgeons habitat.</p>	<p>The ocean outfall's potential impact to the Atlantic sturgeon was based on the information available during the EIS process. If new information critical to the protection of Atlantic sturgeon becomes available, the National Marine Fisheries Service will have opportunity to inform the City before construction begins. The City is required to do an ESA Section 7 consultation with the National Marine Fisheries Service prior to construction.</p> <p>Delaware's Surface Water Quality Standards, amended July 11, 2011, contain criteria which are protective of the most sensitive species of fish and other aquatic life, including threatened and endangered species. The U.S. Environmental Protection Agency consulted with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service before approving Delaware's Standards on July 2, 2012.</p> <p>The Rehoboth Beach WWTP is currently producing an effluent of a quality that exceeds all current water quality standards necessary to permit an ocean outfall.</p>
<p>Commenter expressed concern that the nutrients from the discharge will create harmful algal blooms and referenced the Red Tide of 2007.</p>	<p>If the ocean outfall is built, nitrogen from the treated RBWWTP effluent would be insignificant to the nitrogen levels in the ocean. The diffusers will maintain ambient concentrations of nitrogen and other pollutants at very low concentrations. Ocean currents will further dilute and disperse pollutants. Therefore, cumulative impacts cannot occur.</p> <p>The red tide (<i>Karenia brevis</i>) incidence we experienced in Delaware was likely a bloom that originated in the Gulf of Mexico and was transported through the Straits of Florida and then northward via the Gulf Stream. Then, it is hypothesized that a gyre transported the organisms to the coast of Delaware. It is not likely that the bloom originated in Delaware as a result of nutrient overenrichment.</p>
<p>Commenter expressed concern that the RBWWTP may not be able to remove</p>	<p>As a requirement of the scope, the EIS addressed pharmaceuticals in great detail. Currently there are no criteria for pharmaceuticals in neither federal</p>

pharmaceutical agents completely from the wastewater. If this is the case, pharmaceutical contamination could impact the environment and the public.	nor state water quality standards. The Rehoboth Beach WWTP is currently producing an effluent of a quality that exceeds all current water quality standards necessary to permit an ocean outfall. Treatment of pharmaceuticals in wastewater is an emerging issue and if they become regulated, the City will need to address additional treatment at that time.
Commenter expressed concern that building an ocean outfall, although economically advantageous for the residents of Rehoboth, may not be fair.	Although land application of treated effluent is DNREC's preferred discharge method for treatment plants, there are 46 NPDES permits in the State. These treatment plants discharge to creeks, rivers, bays, and the ocean. It was unclear as to whom this project is unfair. More information is needed.
Commenter questions why Delaware isn't phasing ocean outfalls out like Florida and Southern California.	Florida is decommissioning ocean outfalls because of water supply shortages and also to protect coral reefs from any damage. Southern California is also an area that has significant water supply shortages.  According to the Delaware Geological Survey, there are no water supply shortages in eastern Sussex County. This issue has been addressed by the EIS.

**8. Gregg Rosner letter to DNREC 2/15/13**

<i>Comment Summary</i>	<i>Response</i>
Commenter concerned about PCB's and pharmaceuticals harming aquatic life.	As a requirement of the scope, the EIS addressed pharmaceuticals in great detail. Currently there are no criteria for pharmaceuticals in neither federal nor state water quality standards. The EIS discusses PCBs in the RBWWTP treated effluent; the PCB concentration in the treated effluent is well below DNREC's marine chronic aquatic life criterion. Thus, PCBs are not expected to harm aquatic life.  The Rehoboth Beach WWTP is currently producing an effluent of a quality that exceeds all current water quality standards necessary to permit an ocean outfall. Treatment of pharmaceuticals in wastewater is an emerging issue and if they become regulated, the City will need to address additional treatment at that time.

**9. Gregg Rosner letter to Delaware's Attorney General 2/9/13**

<i>Comment Summary</i>	<i>Response</i>
Commenter requests a moratorium on the permit approval until the perceived legal issues with the EIS are resolved.	DNREC's deputy attorney general Robert Phillips responded to Mr. Rosner regarding the legal questions addressed in the letter.

**10. Gregg Rosner letter to the Secretary of DNREC 2/9/13**

<u>Comment Summary</u>	<u>Response</u>
Commenter requests that the Rehoboth EIS be checked for compliance with Delaware Law TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL DELAWARE ADMINISTRATIVE CODE rule 5.3.1.11.	DNREC's deputy attorney general Robert Phillips responded to Mr. Rosner regarding the legal questions addressed in the letter.  The plume has been modeled and the results show that surface water quality standards will be met. As for the legality of permitting the project, it has been explained that the Record of Decision does not constitute the issuance of a permit.