RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
235 Promenade Street, Providence, RI 02908-5767 TDD 401-222-4462

January 31, 2013

CERTIFIED MAIL

Mr. Michael Sullivan, General Manager
Sakonnet Point Club, Inc.
50 Sakonnet Point Road
Little Compton, RI 02837

RE: Sakonnet Point Club, Inc. Desalination System Discharge
RIPDES Permit No. RI0023558

Dear Mr. Sullivan,

Enclosed is the final Rhode Island Pollutant Discharge Elimination System (RIPDES) Permit for the above-mentioned facility. State regulations, promulgated under Chapter 46-12 of the Rhode Island General Laws of 1956, as amended, require this permit to become effective on the date specified on the first page of the permit. Also enclosed is a copy of the Department of Environmental Management's response to the comments received on the draft permit and information relative to hearing requests and stays of RIPDES Permits.

Also attached is the Rhode Island Department of Environmental Management, Office of Water Resources, Water Quality Certification No. 12-026, for the purpose of constructing the proposed outfall within the Sakonnet Harbor.

The RIPDES Program appreciates the Sakonnet Point Club, Inc.'s cooperation throughout the development of this permit. Should you have any questions concerning this permit, feel free to contact Brian Lafaille, PE of the RIPDES Staff at 401-222-4700, extension 7731.

Sincerely,

Joseph B. Haberek, PE
Principal Sanitary Engineer

JBH:bdl

Enclosures

ecc: Robert F. Ferrari, Northeast Water Solutions, Inc.
David Turin, EPA-Region 1
Annie McFarland, RIDEM-OWR
Traci Pena, RIDEM-OWR
Grover Fugate, CRMC

HEARING REQUESTS

If you wish to contest any of the provisions of this permit, you may request a formal hearing within thirty (30) days of receipt of this letter. The request should be submitted to the Administrative Adjudication Division at the following address:

Bonnie Stewart, Clerk
Department of Environmental Management
Office of Administrative Adjudication
One Capitol Hill, 2nd Floor
Providence, Rhode Island 02903

Any request for a formal hearing must conform to the requirements of Rule 49 of the State Regulations.

STAYS OF RIPDES PERMITS

Should the Department receive and grant a request for a formal hearing, the contested conditions of the permit will not automatically be stayed. However, the permittee, in accordance with Rule 50, may request a temporary stay for the duration of adjudicatory hearing proceedings. Requests for stays of permit conditions should be submitted to the Office of Water Resources at the following address:

Angelo S. Liberti, PE
Chief of Surface Water Protection
Office of Water Resources
235 Promenade Street
Providence, Rhode Island 02908

All uncontested conditions of the permit will be effective and enforceable in accordance with the provisions of Rule 49.

Response to Comments Received on the Draft Permit for the Sakonnet Point Club

On October 11, 2012 the Rhode Island Department of Environmental Management (DEM) solicited public comment on a draft Rhode Island Pollutant Discharge Elimination System (RIPDES) permit for the discharge of Reverse Osmosis (RO) reject water to the Sakonnet Harbor from the Sakonnet Point Club, Inc. (the Club) and of the DEM's consideration of an application for a Water Quality Certification to construct the RO system's proposed outfall within the Sakonnet Harbor. The October 11, 2012 public notice indicated that if such request was made a public hearing would be held. During the comment period, the DEM received requests that a public hearing be held. As a result a public hearing was held on November 20, 2012 at the DEM's offices located at 235 Promenade Street in Providence and public comments were accepted until November 21, 2012. The following is a synopsis of the significant written and oral comments received during the public comment period and at the public hearing and the DEM's response to those comments.

Commenter:

The following comments were submitted to the DEM in an e-mail dated November 20, 2012 by Ms. Mary W. Karlsson, 10 Quoquonset Lane, Little Compton, RI 02837.

Comment 1:

Prior to the initial permit for this discharge into the Sakonnet River adjacent to the Sakonnet Harbor seawall and stone jetty, a natural lobster habitat, there were at least 80-100 lobster traps in the 1990s, individual and strings, supporting a small boat fishery directly along the outer edge of this coastal feature. There has been a dwindling fishery in the jetty/seawall area ever since the establishment of this discharge. And this summer, from personal observation, there were never more than 10 individual traps located in this region. The decimation of this local fishery is exactly what I predicted in my testimony at the hearing against the first RIPDES permit for this toxic discharge.

Response to Comment 1:

According to an Atlantic States Marine Fisheries Commission American lobster stock assessment report published in 2006, "Commercial [American lobster] landings in the Southern New England stock increased sharply from the early 1980's to the late 1990's, reaching a time series high of 10,054 metric tons in 1997. Landings remained near time series highs until 1999, then declined dramatically " This report also indicated that "The number of traps fished in [Southern New England] SNE increased five fold from the early 1980's to the late 1990's, reaching a time series high of 800,000 traps in 1999, and has declined by 50% between 2000 and 2003." Since this decline occurred prior to the existence of the Club, this is evidence that the declining lobster fishery at the Sakonnet Point area, and in the general Southern New England region, is not related to the discharge from the Club. The commenter does not present any scientific evidence that the discharge authorized under the existing RIPDES permit has impacted the local lobster fishery on the Sakonnet River side of the harbor. As indicated in the draft permit's statement of basis, the discharge will be protective of the Rhode Island aquatic life water quality criteria which is protective of American lobster. See Response to Comment 2.

Comment 2:

The new model for this permit is based solely on one toxic metal, copper, and the range of copper level alone is one and a half (159 ug/l) to nearly three times (296 ug/l) the 100 ug/l it takes to kill an adult lobster in 96 hours. While copper is the most deadly to lobsters and crabs, because of the potential osmotic imbalance to their copper-based blood resulting in suffocation and death there are at least three additional toxic metals in the well water and concentrated discharge, arsenic, nickel, and mercury. It is my experience that mixed metal bioassays are always more toxic than one metal alone to a variety of marine species. In addition, at the EPA Lab, Dr. Gentile and I conducted experiments using radioactive copper and 32 ppT/pH 7.8 filtered oceanic seawater to calculate the bioavailability duration of the toxic dissolved copper. We inoculated large flasks of this filtered oceanic seawater with radioactive copper and then took samples every six hours for 96 hours and filtered them to determine how long it took for the copper to form mineral particulates and become unavailable to biota. We measured both the filtrate and the filters using a scintillation counter. 95% of the copper was retained on the filters after 48 hours. Thus, in my opinion, based on the copper chemistry tests and mixed metal bioassays I conducted at EPA, that this model GROSSLY underestimates the real toxicity of the discharge and the duration it take for dissolved metals in acidic (6.5 pH) well water to become unavailable to biota....I believe that DEM should deny this permit alteration to allow such a toxic discharge to a small, shallow harbor used by a significant number of fishermen and commercial fish processors. The risks to live animals and livelihoods are just too great. At the very least, live bioassays should be conducted with a lobster surrogate species such as mysid shrimp to determine this waste's actual toxicity in different salinities and pH.

Response to Comment 2:

A review of more recent data for the Club's drinking water wells #1 and #2, from February 2008 forward, has revealed that the concentrations of Arsenic, Nickel, and Mercury were all below detection. Therefore, since none of these metals are present in the wells, they will not be present in the discharge.

In addition, the Rhode Island Water Quality Criteria established for Copper which were used as the basis for the Total Copper permit limitations established in the draft permit are based on National Criteria. These National Copper Criteria were established and summarized in a document entitled *Ambient Water Quality Criteria – Saltwater Copper Addendum* dated April 14, 1995, which was prepared by the USEPA Environmental Research Laboratory in Narragansett, Rhode Island.

According to the US EPA document entitled, *Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses*, Document # PB85-227049: " the derivation of numerical national water quality criteria for the protection of aquatic organism and their uses is a complex process that uses information from many areas of aquatic toxicology. After a decision is made that a national criterion is needed for a particular material, all available information concerning toxicity to, and bioaccumulation by, aquatic organisms is collected, reviewed for acceptability, and sorted. If enough acceptable data on acute toxicity to aquatic animals are available, they are used to estimate the highest one-hour average concentration that should not result in unacceptable effects on aquatic organisms and their uses. .... Similarly, data on the chronic toxicity of the material to

aquatic animals are used to estimate the highest four-day average concentration that should not cause unacceptable toxicity during a long-term exposure. ...Data on toxicity to aquatic plants are examined to determine whether plants are likely to be unacceptably affected by concentrations that should not cause unacceptable effects on animals. Data on bioaccumulation by aquatic organisms are used to determine if residues might subject edible species to restrictions by the U.S. Food and Drug Administration or if such residues might harm some wildlife consumers of aquatic life. All other available data are examined for adverse effects that might be biologically important....If a thorough review of the pertinent information indicates that enough acceptable data are available, numerical national water quality criteria are derived for fresh water or salt water or both to protect aquatic organisms and their uses from unacceptable effects due to exposures to high concentrations for short periods of time, lower concentrations for longer periods of time, and combinations of the two."

The species used in the establishment of these National Copper Criteria are as follows: Common rangia, Mummichog, Green crab, Copepod, Florida pompano, Sheepshead, Polychate worm, Spot, Topsmelt, Mysid, Atlantic silverside, Tidewater silverside, Inland silverside, Winter flounder, American lobster, Black abalone, Dungeness crab, Soft-shell clam, Sea urchin, Pacific oyster, Eastern oyster, Coot clam, Summer flounder, and Blue mussel. Given the thoughtful and extensive process that is followed to establish National water quality criteria the limitations established for Total Copper in the final permit will be sufficiently protective of lobsters and crabs in addition to the wide range of other species that are present within Sakonnet Harbor.

Comment 3:

Ms. Karlsson submitted a comment regarding the modeling that was used to determine applicable permit limitations, she specifically stated that the model used assumes one salinity and a small pH range and does not take into consideration the tidal flow twice daily from the brackish marsh culvert of the DEM Haffenreffer Wildlife Preserve, which flows into the deeper Federal Channel immediately adjacent to the town dock and the area of the proposed discharge. This brackish water will flow out of the harbor in this dredge channel, pass directly into the discharge area and be less saline and more acidic than average seawater of the model and has the potential to keep the metals in more toxic dissolved/ionic form for a longer duration and wider area than the model assumptions. It is my opinion that the twice daily addition of tidal marsh effluent to the area of the discharge, that is both lower salinity and pH, will severely enlarge the acute and chronic mixing zone calculatons. This will impact a much larger area of the Federal Channel and mooring basin.

Response to Comment 3:

The water quality criteria that were used to establish applicable permit limitations for Total Copper are based on an assumption that the copper in the discharge is 96% dissolved. The model used to establish the dilution available at the point of discharge did not assume any changes to pH or to the dissolved/particulate partitioning of metals. Therefore, when developing applicable permit limitations, it was assumed that the metals were almost entirely dissolved (i.e., limits were calculated assuming that copper was 96% dissolved). As a result the permit

limitations are conservative in this regard and the proposed permit limitations will be protective.

In addition, the tidal flow entering Sakonnet Harbor from the marsh culvert which is connected to the Haffenreffer Wildlife Preserve enters the harbor at a location approximately 500 feet from the proposed point of discharge. As stated in the Draft Permit Statement of Basis the acute mixing zone was established with a mixing zone radius of 4.46 meters or 14.63 feet. Any influence that the flow from the tidal marsh will have on the model will be insignificant by the time these flows interact with the large volume of water contained in the harbor.

Comment 4:

The proposed discharge diffuser is positioned beneath the western perpendicular long pier/float of the Sakonnet Harbor Marina, so that the acute and chronic mixing zones are directly in the Federal Channel, which is the passage to the town dock used by commercial fishermen. Across this Federal Channel from the proposed discharge are a number of moorings used by lobstermen, where they hold live lobsters in pens beneath their boats in the harbor water. It is my opinion that lobsters or crabs held in boats with circulating seawater systems going to the town dock or in mooring live cars will be seriously threatened by this toxic discharge. The animals may not show the effects of this exposure until they reach market listless or dead.

Response to Comment 4:

As indicated in the draft permit Statement of Basis, CORMIX model runs were conducted to determine the distance required to achieve the necessary dilution to satisfy the antidegradation criteria. These model runs determined that a 25m radius mixing zone was necessary for the discharge to meet the antidegradation criteria. The June 22, 2012 Sakonnet Point Club Discharge Outfall Relocation Analysis also determined that the largest extent of concentrations that would be above the chronic aquatic life water quality criteria extended to a maximum radius of 5.12 m or 16.8 feet from the outfall. This is the distance in which the chronic water quality criteria will be met. Although this smaller mixing zone was not used to establish the more stringent antidegradation criteria based mixing zone, the DEM has determined that all aquatic life and human health water quality criteria will be met within this 16.8 foot radius, which is well before the Federal Navigation Channel. As a result there will be no adverse impacts to the lobster boats at the moorings located beyond the Federal Navigation Channel.

Comment 5:

The model used is based on a monthly average test value of copper of 159 ug/l alone in the discharge. I have personally observed well contractors doing what appears to be pressure cleaning or hydro-fracking of the wells during winter months, when not a lot of people are around to observe this operation. An investigation of this applicant's invoices might yield the truth of these observed operations. My point is, that each time the subterranean geologic fractures supplying the well(s) are cleaned or re-fractured, it changes and most certainly increases the toxic metal content of the source water. Thus, given this applicant's past violation and fine

history, I would sternly caution the regulators that the present numbers used in this model may not be realistic, and that the original well data for all metals are more near the truth. Thus, it is imperative for the regulators to investigate this, seek test results for all metals in the well water immediately after one of these fracking events, calculate the additive toxicity and direct the applicant to adjust their model accordingly.

Response to Comment 5:

As summarized in the Draft Permit Statement of Basis, because chemicals are not added to the RO feedwater, the characterization of the RO discharge to the outfall was calculated using the raw feedwater (well water) characterization and the permeate recovery ratio of the RO system. The raw well water is periodically monitored for inorganic contaminants, VOC's and SVOC's and this data was included as part of the permit application. The DEM reviewed this data and determined that there was no reasonable potential for any of the constituents detected, other than copper, to violate applicable water quality criteria. Well water detection data is based on well water data for the period beginning in February 2008 to October 2011. The only metals detected in the well sampling during this period were copper, iron, manganese, and magnesium. As stated in the reasonable potential analysis provided in the statement of basis the only metal for which there is water quality criteria applicable to Class SA{b} waters is Total Copper. Because there is no criteria established for the other metals detected, permit limits were not assigned for these parameters.

Although the DEM did not review the well data provided by Ms. Karlsson as part of the permit limit development process, this older data has been reviewed and a reasonable potential analysis was performed on the three metals detected in Wells 1 and 2 provided by the commenter. The well data provided during the public comment period is from 2002. Arsenic, Nickel, and Copper were each detected in the active wells 1 and 2 during the sampling conducted during the 2002 time period. DEM's analysis of this historic 2002 data demonstrates that there is no reasonable potential for Arsenic and Nickel to violate applicable water quality criteria. See Tables 1 and 2 below for additional details regarding this analysis.

Table 1 – Estimation of RO System Discharge Concentrations

Sample Event Description	*Arsenic (ug/l)*	*Nickel (ug/l)*	*Copper (ug/l)*
2002 Well #1	60	53	50
2002 Well #2	40	56	40
March 2008 RO Pilot Test Composite Well Water Sample	<10	<20	Not Analyzed
June 2008 Well #1	<5	<5	Not Analyzed
June 2008 Well #2	<5	<5	Not Analyzed
Maximum Well Water Concentration	60	56	50
Estimated RO Effluent Concentration*	107	100	89

* Estimated RO Effluent is based on multiplying the maximum concentration detected in well water by a concentration factor of 1.78, which is a function of the RO system permeate recovery ratio.

Table 2 – RO Discharge Concentrations vs. Applicable Permit Limitations

Parameter	*Applicable Monthly Ave. Effluent Limit (ug/l)*	*Applicable Daily Max. Effluent Limit (ug/l)*	*Maximum Estimated Effluent Concentration (ug/)*	*Reasonable Potential to Exceed Applicable Permit Limitations (Y/N)*
Arsenic	272	4068	107	No
Nickel	326	4840	100	No
Copper	133	312	89	Yes

A review of more recent data from 2008 and beyond indicates that Arsenic or Nickel were determined to be non-detectable in the Club's wells (see Table 1). As a result limits for these parameters are not necessary. Our review of all available data did result in the determination that there is "reasonable potential" for Total Copper to exceed applicable permit limitations. As a result Copper limits are required in the permit which is consistent with the original determination made in the draft permit.

In regard to the pressure cleaning or hydro-fracking of the wells during winter months, the applicant has indicated to the DEM that maintenance work is performed annually on the two (2) active water supply wells. This work includes the removal of pumps and inspecting the boreholes, performing pipeline and electrical maintenance and assuring the continued operation of the water supply system. Additionally, one well pump has been replaced. This work is performed during the winter because this is the slow season for the club and the club has scheduled closure days and the work can be performed without disrupting club operations.

Comment 6:

In the DEM file on the present permit for this discharge, is a series of photos of a drifting brown foam trail, apparently coming from the diffuser that is more than 100 feet long and about 3-4 feet wide along the outside seawall and jetty. These were taken by a neighbor of the Club and sent to me. I believe this noxious discharge was from membrane and/or outfall pipe backflushing operations. It is clear that chemicals are not permitted for membrane cleaning, but this sort of freshwater backflushing, producing such an obvious waste stream seems to be prohibited in the past and present proposed permits and will be extremely offensive to harbor users, especially the seafood industry located there. Since the source well water is brackish, it has an obvious seawater source, which means the backflush stream could contain concentrated marine viruses and bacteria (norovirus, vibrio cholera, etc) and could contaminate fish and shellfish catches processed and packed in the harbor area. It is my opinion, that if the regulators persist in granting this permit, they should direct the applicant to collect the backflush water on shore and truck it to a sewage treatment plant, rather than risk contamination of the seafood that is rinsed and packed using harbor waters.

Response to Comment 6:

The proposed discharge will consist of a brackish effluent from a RO drinking water treatment system that is used as a public drinking water supply for the Sakonnet Point Club. The RO drinking water treatment system functions in the following way. The water treatment system utilizes two (2) on-site water supply wells supplying

brackish water to the RO desalination system installed in the Club's basement to treat the water, producing potable water for consumption. The RO system accepts the brackish feedwater from the wells and produces a potable "permeate" for consumption and a brackish "reject" for discharge all without the use of treatment chemicals. The water pretreatment filtration system is also a non-chemical, non-backwashing system and it does not discharge to the outfall. The only material discharged to the outfall is reject water generated from the RO system. The RO system does not have a backflushing process and as a result freshwater backflushing is not conducted and is not authorized by the permit. This determination is based on the information contained in the permit application, the process and instrumentation diagram provided by the Sakonnet Point Club which was prepared by Northeast Water Solutions, Inc., and on past inspections conducted by the DEM RIPDES Permitting Program.

Commenter:

The following comments were submitted to the DEM in an e-mail dated November 21, 2012 by Mr. Larry Anderson, P.O. Box 205, 20 Haffenreffer Lane, Little Compton, RI 02837.

Comment 7:

The public must rely almost entirely on the SPC and DEM to ensure that the (treatment) system works properly, whether the discharge is located in the river or the harbor. Our small town government has limited resources and authority to monitor the activities of the SPC. Nonetheless, I believe it would be important and useful for local officials and citizens to have complete and timely information about the performance of the system, so that they can act quickly to seek remedies or to protect themselves and the public from system failure or malfunction.

Response to Comment 7:

The proposed outfall has been designed to withstand the storm surge and wave action associated with a 100-year storm event, with anchoring designed to withstand a maximum wave-induced velocity of 4 ft/sec., Part I.A.6 of the final permit requires the permittee to conduct annual inspections to ensure that the integrity of the outfall is maintained from year to year. The results of the annual inspections must be submitted to the DEM by January 15th of the year following the inspection. In addition, on a yearly basis, the permittee must submit an annual cleaning report summarizing the date of each cleaning and/or sanitizing event, the type and quantity of cleaning and/or sanitizing chemicals used, and the location of the cleaning and/or sanitizing chemical disposal. The report is due January 15th of each year. In addition to these reporting requirements, the permittee is also required to monitor the discharge from outfall 001A at a frequency of once per month. This monitoring data must be reported on Discharge Monitoring Report (DMR) Forms and submitted to the DEM on a quarterly basis. This DMR data is received by the DEM and entered into a US Environmental Protection Agency database called ICIS which stands for Integrated Compliance Information System. This data is reviewed for compliance on a quarterly basis by the DEM and automatically by the ICIS database itself. This data and other compliance related information is available for review by the public

and the Town of Little Compton through the Environmental Protection Agency's website entitled Enforcement and Compliance History Online (ECHO) which is available at the following address: **http://www.epa-echo.gov/echo/.** If a member of the public or the Town wishes to discuss the information reported by ECHO in regard to the Sakonnet Point Club permit they may do so by contacting the DEM Office of Water Resources RIPDES Permitting Program.

Commenter:

Several comments were given by various parties at the November 20, 2012 public hearing. Since many of the comments were similar in nature, they have been summarized below and the DEM's response presented. The following people spoke at the public hearing:

Mr. Bill Macintosh, 60 Wordell Lane, Little Compton, RI 02837
Mr. Robert Cavanagh, 59 Long Highway, Little Compton, RI 02837
Mr. Gregory J. Materonas, 265 Long Highway, Little Compton, RI 02837
Mr. David Middleton, 98B Long Highway, Little Compton, RI 02837
Ms. Beth Torphy, 7 Montana Road, Little Compton, RI 02837
Mr. Fred Torphy, 676 West Main Road, Little Compton, RI 02837
Mr. Doug Mataronas, 26 California Road, Little Compton, RI 02837

Comment 8:

The commenters voiced similar concerns regarding the impacts that the discharge could have on the water quality within Sakonnet Harbor. It was indicated that their specific concerns were in regard to how the discharge would affect the local lobster industry and the lobsters that they bring into the harbor since the water from the harbor is used to keep lobsters alive as they are transported in and around the harbor prior to being brought to market. In addition, these commenters voiced their concerns regarding the potential degradation of harbor waters to the point where commercial fishing operations that rely on harbor water for their fish transport and holding operations may be adversely impacted as a result of the proposed discharge.

Response to Comment 8:

As stated in the draft permit statement of basis the DEM Marine Fisheries Section requested that the SPC map the habitat local to the acute and chronic mixing zones. Based on this review it was determined that there would not be any measurable adverse impacts to habitat if the outfall were relocated to the proposed location in Sakonnet Harbor. This determination was based on a field study which was conducted by John King of the University of Rhode Island. The study conducted by John King characterized the organisms in the ocean bottom in the area of the proposed outfall site. Based on a review of the field study report prepared by John King, the DEM Marine Fisheries Section determined that the permit limitations established in the draft permit will ensure that the water quality in the harbor will not be degraded outside the established acute and chronic mixing zones.

Comment 9:

Commenters indicated that the science of what's going into the harbor is going to be beside the point, and that regardless of what it is, it's still a degradation of the quality of the water that's going in there. And, they fear it can be a slippery slope. They indicated that it's a private enterprise wanting to put this effluent into a public space and wanted to "reexplore fixing the pipe that's going out into the river".

Response to Comment 9:

The DEM is charged with receiving and reviewing all applications to discharge under the RIPDES Regulations and the RI Water Quality Regulations. It is the DEM's responsibility to draft a permit which when issued will be in compliance with all applicable regulations or to draft our intent to deny a permit if the requirements of applicable regulations will not be met. In the case of this permit, the Sakonnet Point Club initially applied for and received RIPDES Permit No. RI0023558 on November 29, 2002 to discharge via an outfall which discharged to the Sakonnet River. As stated in the draft permit statement of basis, during the winter of 2010/2011 the outfall was severely damaged and eventually it was damaged to the point in which the outfall would no longer function as designed. Inspection and analysis of the outfall failures determined that the outfall was subject to severe storm surge and wave action and it is likely that a replacement outfall in this same location would fail again. As a result, the Sakonnet Point Club proposed to redirect the RO reject to an outfall installed in, and discharging into, the Sakonnet Harbor. This permit has been developed to include appropriate permit conditions and limits to ensure that the discharge will not cause adverse impacts to the harbor.

Comment 10:

Commenters indicated that they pump in the water underneath the road to the Sakonnet Lobster Company, and if it degrades the harbor bad enough, then they won't be able to pump the water in. They don't want to have to make the water for their tanks. We have the best water system around for a lobster company, and I just don't see this as a good thing really, as going into the harbor, and like he said, and everybody may be looking into the options of fixing the outside of the harbor, and where my mooring right aside the breakwall there, Save the Bay or some people have been trying to save the eelgrass there, and it's come back quite substantially, and I don't want to see that go away, too, rather from the copper, and that's just another thing.

Response to Comment 10:

As indicated in Response to Comment 4 and in the draft permit Statement of Basis, CORMIX model runs were conducted to determine the distance required to achieve the necessary dilution to satisfy the antidegradation criteria of 1.54 ug/l. These model runs determined that a 25m radius mixing zone was necessary for the discharge to meet the antidegradation criteria. The June 22, 2012 Sakonnet Point Club Discharge Outfall Relocation Analysis also determined that the largest extent of concentrations that would be above the chronic aquatic life water quality criteria extended to a maximum radius of 5.12 m or 16.8 feet from the outfall. This is the distance in which the chronic water quality criteria will be met. Although this smaller

mixing zone was not used to establish the more stringent antidegradation criteria based mixing zone, the DEM has determined that all aquatic life and human health water quality criteria will be met beyond this 16.8 foot radius.

Based on the known location of the Sakonnet Lobster Company seawater intake which is located approximately three quarters of the way down the dock which is located in Sakonnet Harbor across from California Road, all aquatic life and human health criteria will be met before the discharge reaches this location. As a result the DEM has determined that there will be no adverse impacts to the Sakonnet Lobster Company intake water quality as a result of the Sakonnet Point Club's proposed discharge.

In addition, based on a review of the field study report prepared by John King of the University of Rhode Island, the DEM Marine Fisheries Section noted some eelgrass at the far western end of the survey sites, but they determined that there would not be any impacts to these areas because the copper concentrations would be well below the chronic water quality criteria by the time the flows from the discharge reached those areas.

Comment 11:

...under the reasonable potential paragraph (in the Draft Permit Statement of Basis) it does say that it's a conclusion. It says, "Therefore, based on DMR data collected there's reasonable potential for discharge to violate total copper permit limitations," and DEM has assigned limits for total copper....what do you mean by the discharge might violate total copper limitations. Because the copper, apparently, is the main concern.

Response to Comment 11:

As indicated in the Statement of Basis, in accordance with 40 CFR 122.4(d)(1)(iii), it is only necessary to establish water-quality based permit limits for those pollutants in the discharge, which have the reasonable potential to cause or contribute to the exceedance of in-stream criteria. Based on a review of the effluent data provided to the DEM and presented in Attachment D of the draft permit, the highest total copper value detected in the system effluent was 270 ug/l. Based on this detected effluent concentration, the DEM has determined that the potential exists for applicable Total Copper permit limits to be exceeded and therefore the establishment of a Total Copper permit limit was necessary. The 270 ug/l effluent concentration is greater than the monthly average permit limit but lower than the daily maximum permit limit established in this permit. This 270 ug/l data point was detected during a single sampling event conducted during the September 2009 monthly monitoring period. On average the concentration of Total Copper in the system effluent based on the historical data presented in Attachment D of the draft permit is 34.3 ug/l. As a result, the Sakonnet Point Club does not think that it is likely that they will be unable to comply with the permit limitations established in the draft permit. The permit establishes effluent limits that are necessary to ensure that there will not be any exceedances of the in-stream criteria outside of the established mixing zones. Any exceedances of the established permit limits would be considered permit violations and would be subject to enforcement by the DEM.

Comment 12:

Commenters questioned the timing of the hearing and the way that the public notice was put out there. I would like part of my commentary to perhaps question in the future how the DEM handles such notice in such cases. I think going local to a very specific, you know, newspaper that is more prevalently read in that town is the way to go.

Response to Comment 12:

On October 11, 2012 the DEM solicited public comment on a draft RIPDES permit for the Sakonnet Point Club, Inc. in the Providence Journal. The October 11, 2012 public notice indicated that if such request was made a public hearing would be held. During the comment period, the DEM received numerous requests that a public hearing be held. As a result a public hearing was held on November 20, 2012 at the DEM located at 235 Promenade Street in Providence and public comments were accepted until November 21, 2012. These actions were conducted in accordance with the RIPDES Rule 41 – Public Notice of Permit Actions and Public Comment Period. The following is a link to the Regulations for the Rhode Island Pollutant Discharge Elimination System:
http://www.dem.ri.gov/pubs/regs/regs/water/ripdes03.pdf
Based on the number of hearing requests submitted to the DEM and the number of articles published in the local paper regarding the Club's proposed permit, it is clear that this public notice reached its intended audience.

Comment 13:

Commenters expressed concern that the length of the permit is for five years. They indicated that they would like some sort of assessment after a year. They were concerned about potential long-term impacts.

Response Comments 13:

It is standard practice for the RIPDES Permitting Program to issue permits for a full five (5) year term. In accordance with this standard practice the DEM indicated in the public notice that the existing Sakonnet Point Club permit No. RI0023558 would be revoked and it would be reissued for a new five year term. The DEM has determined that this permit contains effluent limitations and conditions to ensure that the proposed discharge will not violate water quality standards and as a result a shorter permit term is not required for this purpose. Despite the fact that the permit will be in effect for a five (5) year duration, the permittee is required to monitor the discharge from outfall 001A at a frequency of once per month. This monitoring data must be reported on DMR Forms and submitted to the DEM on a quarterly basis. This DMR data is received by the DEM and entered into a US Environmental Protection Agency database. This data is automatically reviewed for compliance with the permit limitations on a quarterly basis by this database. The DEM RIPDES staff also reviews the data and any instances of non-compliance flagged by the database during its Quarterly Non-Compliance Report (QNCR) review process. This compliance tracking and enforcement review is designed to ensure that permittees are operating in compliance with all applicable permit requirements and that any short term impacts resulting from permit non-compliance, if they should occur, will

not go unchecked for extended periods of time.

Comment 14:

In preparing the response to comments an error was uncovered regarding the way the Total Copper permit limitations were calculated in the draft permit.

Response to Comment 14:

It was determined during the DEM's preparation of the response to public comments that when the antidegradation criteria for Total Copper were established in the draft permit a calculation error had been made. When calculating the applicable criteria for Total Copper, an error was made when converting the results from dissolved to total form. Upon identifying this error the DEM revised the calculation as required. This correction resulted in changes to the Monthly Average and Daily Maximum Total Copper permit limitations. The result was that the final monthly average permit limit decreased slightly from 159 ug/l to 133 ug/l. The final daily maximum permit limit increased slightly from 296 ug/l to 312 ug/l. The final permit, the statement of basis, and attachments B and C of the final permit have been updated to reflect the correction of this error. The correction of this error did not result in the need for any additional changes to permit.

AUTHORIZATION TO DISCHARGE UNDER THE RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of Chapter 46-12 of the Rhode Island General Laws, as amended,

Sakonnet Point Club, Incorporated
50 Sakonnet Point Road
Little Compton, Rhode Island 02837

is authorized to discharge from a facility located at

11 Bluff Head Avenue (PO Box 299)
Little Compton, Rhode Island 02837

to receiving waters named

Sakonnet Harbor

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on March 1, 2013.

This permit and the authorization to discharge expire at midnight, five (5) years from the effective date.

This permit supersedes the permit issued on August 5, 2009.

This permit consists of eight (8) pages in Part I including effluent limitations, monitoring requirements, etc. and ten (10) pages in Part II including General Conditions.

Signed this 30th day of January, 2013.

Angelo S. Liberti, P.E., Chief of Surface Water Protection
Office of Water Resources
Rhode Island Department of Environmental Management
Providence, Rhode Island

PART I

A. **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

1. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number(s) 001A.

   Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations					Monitoring Requirement	
	Quantity - lbs./day		Concentration - specify units				
	Average Monthly	Maximum Daily	Average Monthly *(Minimum)	Average Weekly *(Average)	Maximum Daily *(Maximum)	Measurement Frequency	Sample Type
Flow	--- GPD	5000 GPD				Continuous	Recorder
TSS			--- mg/l		--- mg/l	1/Month	24-Hr. Comp.
TDS			--- mg/l		--- mg/l	1/Month	24-Hr. Comp.
pH			(6.5 SU)		(8.5 SU)	1/Month	Grab
Copper, Total			133 ug/l		312 ug/l	1/ Month	24-Hr. Comp.

*Values in parentheses () are to be reported as Minimum/Maximum for the reporting period rather than Average Monthly/Maximum Daily.

--- Signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

Sampling for TSS, TDS, pH, and Total Copper shall be performed Monday – Friday.

Sampling for Flow shall be performed Sunday-Saturday.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 001A (Reverse Osmosis Concentrate Discharge).

2. a. The pH of the effluent shall not be less than 6.5 nor greater than 8.5 standard units at any time.

   b. The discharge shall not cause visible discoloration of the receiving waters.

   c. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.

3. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

   a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

      (1) One hundred micrograms per liter (100 ug/l);

      (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitro-phenol; and one milligram per liter (1 mg/l) for antimony;

      (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or

      (4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.

   b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

      (1) Five hundred micrograms per liter (500 ug/l);

      (2) One milligram per liter (1 mg/l) for antimony;

      (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or

      (4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.

   c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or by-product any toxic pollutant which was not reported in the permit application.

4. This permit serves as the State's Water Quality Certificate for the discharges described herein.

5. The permittee is not authorized to discharge any chemicals, including any that may be associated with the cleaning and/or sanitizing of the water treatment system, pretreatment of the feed water, or coagulation treatment. All such chemicals must be disposed of off-site in accordance with applicable State, Local, and Federal regulations.

6. The permittee must conduct an annual video inspection of the internal side of the outfall pipeline to verify the physical integrity of the outfall. If the video inspection shows evidence of damage to the outfall, additional action, including measurement of the outfall position or underwater video inspection of the outfall pipeline and diffuser from the outside of the pipe may be required. The results of the outfall inspection must be submitted to the DEM by January 15th of the year following the inspection. The first report is due on January 15, 2015.

7. By January 15th of each year, the permittee must submit an Annual Cleaning Report summarizing the date of each cleaning and/or sanitizing event, the type and quantity of cleaning and/or sanitizing chemicals used, and the location of cleaning and/or sanitizing chemical disposal. The report must cover the previous calendar year. The first report is due January 15, 2014.

8. Within six (6) months of the effective date of this permit, the permittee must plug the pipeline which previously transmitted the RO reject wastestream to the Sakonnet River to ensure that a discharge from the abandoned outfall will not occur in the future, remove the remaining component debris from the previous discharge pipeline and outfall structure from the sea floor, and submit a report documenting these actions to the DEM.

9. Prior to discharging from Outfall 001A the permittee shall submit as-built plans of the Reverse Osmosis Effluent Discharge Pipeline to the DEM. These plans shall be consistent with the plans submitted with the application to modify the permit dated May 2012, entitled: Reverse Osmosis Effluent Discharge Pipeline, Sakonnet Point Club, Little Compton, RI, Sheets 1-9.

B. DETECTION LIMITS

The permittee shall assure that all wastewater testing required by this permit, is performed in conformance with the method detection limits listed below. In accordance with 40 CFR Part 136, EPA approved analysis techniques, quality assurance procedures and quality control procedures shall be followed for all reports required to be submitted under the RIPDES program. These procedures are described in "Methods for the Determination of Metals in Environmental Samples" (EPA/600/4-91/010) and "Methods for Chemical Analysis of Water and Wastes" (EPA/600/4-79/020).

The report entitled "Methods for the Determination of Metals in Environmental Samples" includes a test which must be performed in order to determine if matrix interferences are present, and a series of tests to enable reporting of sample results when interferences are identified. Each step of the series of tests becomes increasingly complex, concluding with the complete Method of Standard Additions analysis. The analysis need not continue once a result which meets the applicable quality control requirements has been obtained. Documentation of all steps conducted to identify and account for matrix interferences shall be documented and maintained onsite.

If, after conducting the complete Method of Standard Additions analysis, the laboratory is unable to determine a valid result, the laboratory shall report "could not be analyzed". Documentation supporting this claim shall be maintained onsite. If valid analytical results are repeatedly unobtainable, DEM may require that the permittee determine a method detection limit (MDL) for their effluent or sludge as outlined in 40 CFR Part 136, Appendix B.

When calculating sample averages for reporting on discharge monitoring reports (DMRs):

1. "could not be analyzed" data shall be excluded, and shall not be considered as failure to comply with the permit sampling requirements;

2. results reported as less than the MDL shall be reported as zero in accordance with the DEM's DMR Instructions, provided that all appropriate EPA approved methods were followed.

Therefore, all sample results shall be reported as: an actual value, "could not be analyzed", or zero. The effluent or sludge specific MDL must be calculated using the methods outlined in 40 CFR Part 136, Appendix B. Samples which have been diluted to ensure that the sample concentration will be within the linear dynamic range shall not be diluted to the extent that the analyte is not detected. If this should occur the analysis shall be repeated using a lower degree of dilution.

LIST OF TOXIC POLLUTANTS

The following list of toxic pollutants has been designated pursuant to Section 307(a)(1) of the Clean Water Act. The Method Detection Limits (MDLs) represent the required Rhode Island MDLs.

Volatiles - EPA Method 624		MDL ug/l (ppb)
1V	acrolein	10.0
2V	acrylonitrile	5.0
3V	benzene	1.0
5V	bromoform	1.0
6V	carbon tetrachloride	1.0
7V	chlorobenzene	1.0
8V	chlorodibromomethane	1.0
9V	chloroethane	1.0
10V	2-chloroethylvinyl ether	5.0
11V	chloroform	1.0
12V	dichlorobromomethane	1.0
14V	1,1-dichloroethane	1.0
15V	1,2-dichloroethane	1.0
16V	1,1-dichloroethylene	1.0
17V	1,2-dichloropropane	1.0
18V	1,3-dichloropropylene	1.0
19V	ethylbenzene	1.0
20V	methyl bromide	1.0
21V	methyl chloride	1.0
22V	methylene chloride	1.0
23V	1,1,2,2-tetrachloroethane	1.0
24V	tetrachloroethylene	1.0
25V	toluene	1.0
26V	1,2-trans-dichloroethylene	1.0
27V	1,1,1-trichloroethane	1.0
28V	1,1,2-trichloroethane	1.0
29V	trichloroethylene	1.0
31V	vinyl chloride	1.0

Acid Compounds - EPA Method 625		MDL ug/l (ppb)
1A	2-chlorophenol	1.0
2A	2,4-dichlorophenol	1.0
3A	2,4-dimethylphenol	1.0
4A	4,6-dinitro-o-cresol	1.0
5A	2,4-dinitrophenol	2.0
6A	2-nitrophenol	1.0
7A	4-nitrophenol	1.0
8A	p-chloro-m-cresol	2.0
9A	pentachlorophenol	1.0
10A	phenol	1.0
11A	2,4,6-trichlorophenol	1.0

Pesticides - EPA Method 608		MDL ug/l (ppb)
1P	aldrin	0.059
2P	alpha-BHC	0.058
3P	beta-BHC	0.043
4P	gamma-BHC	0.048
5P	delta-BHC	0.034
6P	chlordane	0.211
7P	4,4 ' -DDT	0.251
8P	4,4 ' -DDE	0.049
9P	4,4 ' -DDD	0.139
10P	dieldrin	0.082
11P	alpha-endosulfan	0.031
12P	beta-endosulfan	0.036
13P	endosulfan sulfate	0.109
14P	endrin	0.050
15P	endrin aldehyde	0.062
16P	heptachlor	0.029
17P	heptachlor epoxide	0.040

Pesticides - EPA Method 608		MDL ug/l (ppb)
18P	PCB-1242	0.289
19P	PCB-1254	0.298
20P	PCB-1221	0.723
21P	PCB-1232	0.387
22P	PCB-1248	0.283
23P	PCB-1260	0.222
24P	PCB-1016	0.494
25P	toxaphene	1.670

Base/Neutral - EPA Method 625		MDL ug/l (ppb)
1B	acenaphthene *	1.0
2B	acenaphthylene *	1.0
3B	anthracene *	1.0
4B	benzidine	4.0
5B	benzo(a)anthracene *	2.0
6B	benzo(a)pyrene *	2.0
7B	3,4-benzofluoranthene *	1.0
8B	benzo(ghi)perylene *	2.0
9B	benzo(k)fluoranthene *	2.0
10B	bis(2-chloroethoxy)methane	2.0
11B	bis(2-chloroethyl)ether	1.0
12B	bis(2-chloroisopropyl)ether	1.0
13B	bis(2-ethylhexyl)phthalate	1.0
14B	4-bromophenyl phenyl ether	1.0
15B	butylbenzyl phthalate	1.0
16B	2-chloronaphthalene	1.0
17B	4-chlorophenyl phenyl ether	1.0
18B	chrysene *	1.0
19B	dibenzo (a,h)anthracene *	2.0
20B	1,2-dichlorobenzene	1.0
21B	1,3-dichlorobenzene	1.0
22B	1,4-dichlorobenzene	1.0
23B	3,3 ' -dichlorobenzidine	2.0
24B	diethyl phthalate	1.0
25B	dimethyl phthalate	1.0
26B	di-n-butyl phthalate	1.0
27B	2,4-dinitrotoluene	2.0
28B	2,6-dinitrotoluene	2.0
29B	di-n-octyl phthalate	1.0
30B	1,2-diphenylhydrazine (as azobenzene)	1.0
31B	fluoranthene *	1.0
32B	fluorene *	1.0
33B	hexachlorobenzene	1.0
34B	hexachlorobutadiene	1.0
35B	hexachlorocyclopentadiene	2.0
36B	hexachloroethane	1.0
37B	indeno(1,2,3-cd)pyrene *	2.0
38B	isophorone	1.0
39B	naphthalene *	1.0
40B	nitrobenzene	1.0
41B	N-nitrosodimethylamine	1.0
42B	N-nitrosodi-n-propylamine	1.0
43B	N-nitrosodiphenylamine	1.0
44B	phenanthrene *	1.0
45B	pyrene *	1.0
46B	1,2,4-trichlorobenzene	1.0

OTHER TOXIC POLLUTANTS

	MDL ug/l (ppb)
Antimony, Total	3.0
Arsenic, Total	1.0
Beryllium, Total	0.2
Cadmium, Total	0.1
Chromium, Total	1.0
Chromium, Hexavalent	20.0
Copper, Total	1.0
Lead, Total	1.0
Mercury, Total	0.2
Nickel, Total	1.0
Selenium, Total	2.0
Silver, Total	0.5
Thallium, Total	1.0
Zinc, Total	5.0
Asbestos	**
Cyanide, Total	10.0
Phenols, Total	50.0
TCDD	**
MTBE (Methyl Tert Butyl Ether)	1.0

** No Rhode Island Department of Environmental Management (RIDEM) MDL

NOTE:

The MDL for a given analyte may vary with the type of sample. MDLs which are determined in reagent water may be lower than those determined in wastewater due to fewer matrix interferences. Wastewater is variable in composition and may therefore contain substances (interferents) that could affect MDLs for some analytes of interest. Variability in instrument performance can also lead to inconsistencies in determinations of MDLs.

To help verify the absence of matrix or chemical interference the analyst is required to complete specific quality control procedures. For the metals analyses listed above the analyst must withdraw from the sample two equal aliquots; to one aliquot add a known amount of analyte, and then dilute both to the same volume and analyze. The unspiked aliquot multiplied by the dilution factor should be compared to the original. Agreement of the results within 10% indicates the absence of interference. Comparison of the actual signal from the spiked aliquot to the expected response from the analyte in an aqueous standard should help confirm the finding from the dilution analysis. (Methods for Chemical Analysis of Water and Wastes EPA-600/4-79/020).

For Methods 624 and 625 the laboratory must on an ongoing basis, spike at least 5% of the samples from each sample site being monitored. For laboratories analyzing 1 to 20 samples per month, at least one spiked sample per month is required. The spike should be at the discharge permit limit or 1 to 5 times higher than the background concentration determined in Section 8.3.2, whichever concentration would be larger. (40 CFR Part 136 Appendix B Method 624 and 625 subparts 8.3.1 and 8.3.11).

C. MONITORING AND REPORTING

1. Monitoring

All monitoring required by this permit shall be done in accordance with sampling and analytical testing procedures specified in Federal Regulations (40 CFR Part 136).

2. Reporting

Monitoring results obtained during the previous quarter shall be summarized and reported on Discharge Monitoring Report (DMR) Forms, postmarked no later than the 15th day of the month following the completed quarter as follows:

Quarter Testing to be Performed	Report Due No Later Than	Results Submitted on DMR for
January 1 - March 31	April 15	March
April 1 - June 30	July 15	June
July 1 - September 30	October 15	September
October 1 - December 31	January 15	December

The first report is due on April 15, 2013.

A signed copy of these, and all other reports required herein, shall be submitted to:

RIPDES Program
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908

PART II
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GENERAL REQUIREMENTS

DEFINITIONS

GENERAL REQUIREMENTS

(a) Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Chapter 46-12 of the Rhode Island General Laws and the Clean Water Act (CWA) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(1) The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

(2) The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the CWA is subject to a civil penalty not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307 or 308 of the Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment of not more than 1 year, or both.

(3) Chapter 46-12 of the Rhode Island General Laws provides that any person who violates a permit condition is subject to a civil penalty of not more than $5,000 per day of such violation. Any person who willfully or negligently violates a permit condition is subject to a criminal penalty of not more than $10,000 per day of such violation and imprisonment for not more than 30 days, or both. Any person who knowingly makes any false statement in connection with the permit is subject to a criminal penalty of not more than $5,000 for each instance of violation or by imprisonment for not more than 30 days, or both.

(b) Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The permittee shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

(c) Need to Halt or Reduce Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(e) Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures, and, where applicable, compliance with DEM "Rules and Regulations Pertaining to the Operation and Maintenance of Wastewater Treatment Facilities" and "Rules and Regulations Pertaining to the Disposal and Utilization of Wastewater Treatment Facility Sludge." This provision requires the operation of back-up or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of the permit.

(f) Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause, including but not limited to: (1) Violation of any terms or conditions of this permit; (2) Obtaining this permit by misrepresentation or failure to disclose all relevant facts; or (3) A change in any conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(g) Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

(h) Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

(i) Inspection and Entry

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

(1) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times any records that must be kept under the conditions of this permit;

(3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

(4) Sample or monitor any substances or parameters at any location, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA or Rhode Island law.

(j) Monitoring and Records

(1) Samples and measurements taken for the purpose of monitoring shall be representative of the volume and nature of the discharge over the sampling and reporting period.

(2) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings from continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 5 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

(3) Records of monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

(4) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 and applicable Rhode Island regulations, unless other test procedures have been specified in this permit.

(5) The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall upon conviction, be punished by a fine of not more than $10,000 per violation or by imprisonment for not more than 6 months per violation or by both. Chapter 46-12 of the Rhode Island General Laws also provides that such acts are subject to a fine of not more than $5,000 per violation, or by imprisonment for not more than 30 days per violation, or by both.

(6) Monitoring results must be reported on a Discharge Monitoring Report (DMR).

(7) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136, applicable State regulations, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

(k) Signatory Requirement

All applications, reports, or information submitted to the Director shall be signed and certified in accordance with Rule 12 of the Rhode Island Pollutant Discharge Elimination System (RIPDES) Regulations. Rhode Island General Laws, Chapter 46-12 provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $5,000 per violation, or by imprisonment for not more than 30 days per violation, or by both.

(l) Reporting Requirements

(1) Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.

(2) Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with the permit requirements.

(3) Transfers. This permit is not transferable to any person except after written notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under State and Federal law.

(4) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(5) Twenty-four hour reporting. The permittee shall immediately report any noncompliance which may endanger health or the environment by calling DEM at (401) 222-4700 or (401) 222-3070 at night.

A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The following information must be reported immediately:

(i) Any unanticipated bypass which causes a violation of any effluent limitation in the permit; or

(ii) Any upset which causes a violation of any effluent limitation in the permit; or

(iii) Any violation of a maximum daily discharge limitation for any of the pollutants specifically listed by the Director in the permit.

The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

(6) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (1), (2), and (5), of this section, at the time monitoring reports are submitted. The reports shall contain the information required in paragraph (l)(5) of the section.

(7) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, they shall promptly submit such facts or information.

(m) Bypass

"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

(1) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (2) and (3) of this section.

(2) Notice.

(i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass.

(ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Rule 14.18 of the RIPDES Regulations.

(3) Prohibition of bypass.

(i) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage, where "severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production;

(B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(C) The permittee submitted notices as required under paragraph (2) of this section.

(ii) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (3)(i) of this section.

(n) Upset

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(1) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph (2) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(2) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(a) An upset occurred and that the permittee can identify the cause(s) of the upset;

(b) The permitted facility was at the time being properly operated;

(c) The permittee submitted notice of the upset as required in Rule 14.18 of the RIPDES Regulations; and

(d) The permittee complied with any remedial measures required under Rule 14.05 of the RIPDES Regulations.

(3) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

(o) Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. Discharges which cause a violation of water quality standards are prohibited. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different or increased discharges of pollutants must be reported by submission of a new NPDES application at least 180 days prior to commencement of such discharges, or if such changes will not violate the effluent limitations specified in this permit, by notice, in writing, to the Director of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by the permit constitutes a violation.

(p) Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner consistent with applicable Federal and State laws and regulations including, but not limited to the CWA and the Federal Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq., Rhode Island General Laws, Chapters 46-12, 23-19.1 and regulations promulgated thereunder.

(q) Power Failures

In order to maintain compliance with the effluent limitation and prohibitions of this permit, the permittee shall either:

> In accordance with the Schedule of Compliance contained in Part I, provide an alternative power source sufficient to operate the wastewater control facilities;

or if such alternative power source is not in existence, and no date for its implementation appears in Part I,

> Halt reduce or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

(r) Availability of Reports

Except for data determined to be confidential under paragraph (w) below, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the DEM, 291 Promenade Street, Providence, Rhode Island. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA and under Section 46-12-14 of the Rhode Island General Laws.

(s) State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law.

(t) Other Laws

The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, nor does it relieve the permittee of its obligation to comply with any other applicable Federal, State, and local laws and regulations.

(u) Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

(v) Reopener Clause

The Director reserves the right to make appropriate revisions to this permit in order to incorporate any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the CWA or State law. In accordance with Rules 15 and 23 of the RIPDES Regulations, if any effluent standard or prohibition, or water quality standard is promulgated under the CWA or under State law which is more stringent than any limitation on the pollutant in the permit, or controls a pollutant not limited in the permit, then the Director may promptly reopen the permit and modify or revoke and reissue the permit to conform to the applicable standard.

(w) Confidentiality of Information

(1) Any information submitted to DEM pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, DEM may make the information available to the pubic without further notice.

(2) Claims of confidentiality for the following information will be denied:

(i) The name and address of any permit applicant or permittee;

(ii) Permit applications, permits and any attachments thereto; and

(iii) NPDES effluent data.

(x) Best Management Practices

The permittee shall adopt Best Management Practices (BMP) to control or abate the discharge of toxic pollutants and hazardous substances associated with or ancillary to the industrial manufacturing or treatment process and the Director may request the submission of a BMP plan where the Director determines that a permittee's practices may contribute significant amounts of such pollutants to waters of the State.

(y) Right of Appeal

Within thirty (30) days of receipt of notice of a final permit decision, the permittee or any interested person may submit a request to the Director for an adjudicatory hearing to reconsider or contest that decision. The request for a hearing must conform to the requirements of Rule 49 of the RIPDES Regulations.

DEFINITIONS

1. For purposes of this permit, those definitions contained in the RIPDES Regulations and the Rhode Island Pretreatment Regulations shall apply.

2. The following abbreviations, when used, are defined below.

cu. M/day or M^3/day	cubic meters per day
mg/l	milligrams per liter
ug/l	micrograms per liter
lbs/day	pounds per day
kg/day	kilograms per day
Temp. °C	temperature in degrees Centigrade
Temp. °F	temperature in degrees Fahrenheit
Turb.	turbidity measured by the Nephelometric Method (NTU)
TNFR or TSS	total nonfilterable residue or total suspended solids
DO	dissolved oxygen
BOD	five-day biochemical oxygen demand unless otherwise specified
TKN	total Kjeldahl nitrogen as nitrogen
Total N	total nitrogen
NH_3-N	ammonia nitrogen as nitrogen
Total P	total phosphorus
COD	chemical oxygen demand
TOC	total organic carbon
Surfactant	surface-active agent
pH	a measure of the hydrogen ion concentration
PCB	polychlorinated biphenyl
CFS	cubic feet per second
MGD	million gallons per day
Oil & Grease	Freon extractable material
Total Coliform	total coliform bacteria
Fecal Coliform	total fecal coliform bacteria
ml/l	milliliter(s) per liter
NO_3-N	nitrate nitrogen as nitrogen
NO_2-N	nitrite nitrogen as nitrogen
NO_3-NO_2	combined nitrate and nitrite nitrogen as nitrogen
Cl_2	total residual chlorine

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
235 PROMENADE STREET
PROVIDENCE, RHODE ISLAND 02908

STATEMENT OF BASIS

RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES) PERMIT TO DISCHARGE TO WATERS OF THE STATE

RIPDES PERMIT NO. **RI0023558**

NAME AND ADDRESS OF APPLICANT:

Sakonnet Point Club, Incorporated
50 Sakonnet Point Road
Little Compton, Rhode Island 02837

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Sakonnet Point Club, Incorporated
11 Bluff Head Avenue (PO Box 299)
Little Compton, Rhode Island 02837

RECEIVING WATER: Sakonnet Harbor

CLASSIFICATION: SA{b}

I. Proposed Action, Type of Facility, and Discharge Location

The Sakonnet Point Club, Inc. (the SPC) in Little Compton, Rhode Island has applied to the Rhode Island Department of Environmental Management (DEM) for a modification to its existing RIPDES Permit to discharge into the Sakonnet Harbor. During the winter of 2010/2011 the outfall structure approved in the previous permit was severely damaged. Following inspection of the damage, a repair program was implemented to restore the physical and operational integrity of the outfall. However, the outfall was again severely damaged in August 2011, resulting in the failure of the outfall and shutdown of the water treatment system. Given the fact that the outfall would most likely be damaged again if replaced in the Sakonnet River, the SPC submitted an application to the DEM in which it proposed redirecting the Reverse Osmosis (RO) reject to a new outfall structure which will be installed in and discharge to the Sakonnet Harbor. The discharge will be identical to that which was discharging into the Sakonnet River which consisted of brackish effluent from a RO system that is used as a public drinking water supply for the SPC.

II. Limitations and Conditions

The effluent limitations in the permit and the monitoring requirements may be found in the draft permit.

III. Permit Basis and Explanation of Effluent Limitation Derivation

The SPC is a non-profit organization providing marine related services to member families and individuals. Club services include a restaurant and bar, outdoor pool and deck, shower and wash facilities and a dry slip marina. The facility formally initiated operations in June 2008 and has operated continuously since that time. The Club operates a public water system to provide water solely for Club operations, operating independent of all other water supply sources serving neighboring residents and businesses. The water treatment system utilizes two (2) on-site water supply wells supplying brackish water to a RO desalination system installed in the Club's basement to treat the water, producing potable water for consumption. The public water treatment system is regulated and monitored by the RI Department of Health (RIDOH).

The RO system accepts the brackish feedwater from the wells, producing a potable "permeate" for consumption, and a brackish "reject" for discharge. The Club initially applied for and received RIPDES Permit No. RI0023558, executed on November 29, 2002 (effective date – January 1, 2003) to discharge the RO "reject" via an outfall to the Sakonnet River. In September 2007 the Club submitted a permit renewal application for this discharge. The application was determined to be complete on December 19, 2007 and the permit was subsequently reissued on August 5, 2009 with an effective date of October 1, 2009.

During the winter of 2010/2011 the outfall was severely damaged. Following inspection of the damage, a repair program was implemented to restore the physical and operational integrity of the outfall. However, the outfall was again severely damaged in August 2011, resulting in the failure of the outfall and shutdown of the water treatment system. The Club has been importing bulk potable water since the RO system was shutdown on October 21, 2011 pending construction of a new outfall. Inspection and analysis of the outfall failures determined that the outfall was subject to severe storm surge and wave action and it is was likely that a replacement outfall would fail again. As a result an alternative was proposed to re-direct the RO reject to an outfall installed in, and discharging into, the Sakonnet Harbor.

The SPC proposes to resume discharging effluent consisting of concentrate water from the RO treatment system to a new outfall location within the Sakonnet Harbor, a Class SA{b} water body. This water body is identified by water body ID No. RI0010031E-01D and is located in the Sakonnet Harbor south of a line from the light at the end of the Sakonnet breakwater to the point of land at the end of Goodrich Lane, Little Compton, on the eastern shore of the harbor in Little Compton, RI. The system utilizes two on-site groundwater wells as a source for a public drinking water supply. Three wells were originally installed however due to their close proximity to each other it was later determined that the system could be run more efficiently using only two of the three wells. As a result Well Numbers 1 & 2 are active, and the center well, Well No. 3, is currently inactive. After the groundwater is pumped into the clubhouse, the groundwater is desalinated using a treatment system that consists of Prefiltration, RO, and Ultraviolet Disinfection. The applicant does not use any chemicals in the treatment process and the permit does not authorize the discharge of any chemicals.

Development of RIPDES permit limitations is a multi-step process consisting of the following steps: calculating allowable water quality-based discharge levels based on in-stream criteria, background data and available dilution; identifying applicable technology-based limits; assigning appropriate Best Professional Judgement (BPJ) limits; setting the most stringent limits as final limits; and evaluating the ability of the facility to meet the final permit effluent limits.

Water quality criteria are comprised of numeric and narrative criteria. Numeric criteria are scientifically derived ambient concentrations developed by EPA or States for various pollutants of concern to protect human health and aquatic life. Narrative criteria are statements that describe the desired water quality goal. A technology-based limit is a numeric limit, which is determined by examining the capability of a treatment process to reduce or eliminate pollutants.

Water Quality-Based Limits

The "Maximum" and "Minimum" pH limitations of 8.5 and 6.5 standard units in the permit are equal to the maximum and minimum water quality criteria for pH from Rule 8.D(3) of the Rhode Island Water Quality Regulations, adopted in accordance with Chapter 42-35 pursuant to Chapters 46-12 and 42-17.1 of the Rhode Island General Laws of 1956, as amended.

The allowable effluent limitations for individual pollutants are established on the basis of acute and chronic aquatic life criteria and human health criteria using the following: available in-stream dilution; an allocation factor; and background concentrations when available and/or appropriate. The aquatic life and human health criteria are specified in Appendix B of the Rhode Island Water Quality Regulations. Aquatic life criteria have been established to ensure the protection and propagation of aquatic life while the human health criteria applicable to the class SA{b} receiving water represent the pollutant levels that would not result in a unacceptable risk to public health from the ingestion of aquatic organisms. The more stringent of the two criteria is then used in establishing allowable effluent limitations.

The allowable discharge limits are calculated as follows:

a) Unknown background concentration data or available data is impacted by sources that have not yet achieved water quality based limits:

$$Limit = (DF)*(Criteria)*(80\%)$$

Where: DF = acute or chronic dilution factor, as appropriate

b) Using available background concentration data that is not impacted by sources that have not yet achieved water quality based limits:

$$Limit = (DF)*(Criteria)*90\%-(Background)*(DF-1)$$

Where: DF = acute or chronic dilution factor, as appropriate

The formulas noted above were applied with the following exceptions:

A) Pollutants that based on the acute and chronic dilution factors have a higher allowable chronic limit than allowable acute limit. For this situation, both the "Monthly Average" and "Daily Maximum" limits were set using the allowable acute limit. For all others, the "Monthly Average" limits were set equal to the allowable chronic limit and the "Daily Maximum" limits were set equal to the allowable acute limit.

B) Pollutants subject to Antidegradation Requirements. For this situation, the "Antidegradation criteria" were used to calculate the "Monthly Average" limits in place of the chronic water quality criteria from the Rhode Island Water Quality Regulations.

Rule 8.D(1)(f) of the Rhode Island Water Quality Regulations allows the Director to recognize, where appropriate a limited acute and/or chronic mixing zone(s) on a case by case basis. The DEM has determined that mixing zones are appropriate for the proposed discharge to the Sakonnet Harbor. Prior to calculating the water quality-based limitations, it is necessary to first identify the appropriate chronic and acute dilution factors.

The SPC is proposing to move their previous RO effluent discharge pipe and diffuser from a location outside the harbor in the Sakonnet River to a location inside the harbor next to the boat loading dock, close to the SPC facility. A site plan which depicts the proposed location of the outfall is contained in Attachment A. The discharge to the proposed new location was evaluated with respect to state water

quality standards for chronic and acute criteria as well as antidegradation and copper impacts. The major difference between the previous discharge and the proposed discharge is that the proposed location of the discharge pipe is within the harbor as opposed to the previous location outside the harbor in the Sakonnet River.

The present application proposes to relocate the SPC discharge outfall within Sakonnet Harbor under the docks close to the facility on the western side of the harbor. A final report entitled *Sakonnet Point Club Discharge Outfall Relocation Analysis* dated June 22, 2012 was submitted to the DEM as part of the application for a RIPDES permit modification. This report evaluated the discharge from a proposed diffuser configuration. The water depth at the discharge location is 2.3 m relative to Mean Low Water (MLW). All elevations were established relative to local MLW as established by the RT Group, Inc. in April 2008. Specific information regarding the establishment of MLW elevations relative to Geodetic Disk LW0620 U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, Station ID 8450768 are included in the *June 22, 2012 Sakonnet Point Club Discharge Outfall Relocation Analysis* report which is available for review and is on file at the DEM Office of Water Resources.

The previous discharge pipe and diffuser configuration consisted of a diffuser block at the end of a 2 inch pipe with 7, 1.5 inch diameter ports, designed to spread out the discharge. The most recent analysis relative to the new location evaluated the discharge as a single pipe and the existing diffuser configuration with a modified vertical discharge location of 0.5m (1.6 ft) above the bottom surface. Two different analysis procedures were included in the *June 22, 2012 Sakonnet Point Club Discharge Outfall Relocation Analysis*, CORMIX modeling for characterizing the steady state near field plume dilution characteristics and a WQMAP modeling simulation to determine the transient long term far field impacts of the discharge.

The acute and chronic water quality criteria for dissolved copper are 4.8 ug/l and 3.1 ug/l, respectively. The threshold of interest for evaluation of antidegradation is calculated based on background conditions and water quality criteria. Appendix C of the RI Water Quality regulations state that activities that consume greater than 20% of the assimilative capacity will be considered significant and require a demonstration of important economic or social benefit prior to approval. The assimilative capacity is the difference between the chronic water quality criteria for a pollutant and the background concentration of that pollutant in a water body. The chronic criteria for dissolved copper is 3.1 ug/l and the background level is 0.818 ug/l, resulting in an assimilative capacity of 2.28 ug/l. Therefore, the "antidegradation criteria" is 1.27 ug/l (the background concentration of 0.818 ug/l + 20% of the assimilative capacity).

Acute Mixing Zone

The size of the acute mixing zone was determined using the EPA's recommended criteria from the *Technical Support Document for Water Quality-Based Toxics Control* (the "TSD") which indicates that the most stringent of the following criteria should be used:

a) The CMC must be met within a distance of fifty times (50x) the discharge length scale in any spatial direction. The discharge length scale equals the square root of the cross-sectional area of the discharge outlet. For an outfall pipe with seven 0.0381m openings:

$$Radius = 50 * \sqrt{7 * (\tfrac{\pi}{4})(0.0381m)^2} = 4.46m$$

This criteria gives an acute mixing zone radius of 4.46 meters.

b) The CMC must be met within a distance of five times (5x) the local water depth in any horizontal direction. Using a local water depth of 2.28 meters:

Radius = 5 * 2.28m = 11.4 m

The most stringent of the above criteria would be condition a, an acute mixing zone radius of 4.46 meters. Therefore, an acute mixing zone radius of 4.46 meters has been established.

CORMIX is a plume model that solves a set of analytical equations to estimate the steady state shape, extent and dilution of an effluent plume from a constant discharge. In order to understand the potential radius required to achieve the dilution necessary to meet water quality standards, multiple CORMIX runs were simulated covering a range of possible conditions. The CORMIX model runs were set up to reflect a conservative estimate of both the effluent discharge and ambient conditions. Specifically the scenarios included: a) the maximum discharge rate (based on maximum pump rate); b) a conservative estimate of density differential between the discharge and the receiving water (3 kg/m^3); c) the diffuser configuration (a single pipe with seven 1.5 inch diameter vertical, upwards facing ports located 0.5m above the bottom in 2.3m waters relative to mean lower water (MLW); d) a range of ambient current conditions (0.02 through 0.5 m/s).

Based upon the CORMIX modeling results contained in the *June 22, 2012 Sakonnet Point Club Discharge Outfall Relocation Analysis* report, the lowest dilution factor at the acute mixing zone of 4.46 meters is 73.7, which occurs at an ambient velocity of 0.075 m/s. Using the previous equations this dilution factor was then used to determine applicable water quality based daily maximum permit limitations.

Chronic Mixing Zone

The discharge relocation results in differences in water depth at the discharge location and differences in the ambient currents local to the discharge in comparison to the analysis conducted for the previous permit. The currents and circulation in the river are primarily tidally driven whereas circulation in the harbor is primarily wind driven. With tidal currents, there are distinct patterns of current regimes (mean flood, mean ebb, mean slack) for which the CORMIX analysis was run, however in the harbor there is far less regularity of circulation patterns. For this reason a time varying 3D hydrodynamic and mass transport model application was also developed using Applied Science Associates's WQMAP modeling system to determine the potential for far field buildup.

Mass transport model runs were conducted to determine the distance required to achieve the necessary dilution to satisfy the previously identified antidegradation criteria . A mixing zone radius of 25 meters established using WQMAP had a corresponding dilution factor of 243. This dilution factor was then used to determine applicable water quality based monthly average permit limitations that will satisfy the antidegradation criteria. Attachment B contains a summary of the calculations completed to determine the applicable water quality based permit limitations based on the acute and chronic dilution factors and applicable water quality criteria.

Although a mixing zone radius of 25 meters was necessary to meet the antidegradation criteria, the model showed that excess water column concentrations above the derived limits were mainly confined to the source location within a 16 m^2 (essentially 2m radius) area. However, there were intermittent periods where the area extended to approximately $32m^2$ at a 6m radius. These distances are comparable to the steady state near field CORMIX modeling results. The model predicted that discharged concentrations were confined to the bottom of the water column based on the modeling assumption of neutral buoyancy, however in reality the effluent will rise to the surface due to the density differential between the discharge and the receiving water body. The predicted dilution factors therefore are conservative as there would actually be higher dilution through vertical mixing within the water column.

Habitat Impacts Assessment

The DEM Marine Fisheries Section requested that the SPC map the habitat local to the discharge. Based on the DEM Marine Fisheries Section's review of the *June 22, 2012 Sakonnet Point Club Discharge Outfall Relocation Analysis* report it was determined that there would not be any measurable adverse impacts to habitat if the outfall were relocated to the proposed location in the Sakonnet Harbor. DEM Marine Fisheries indicated that the bottom surveys did not identify any unique habitats that would be impacted by the proposed discharge. Although the survey did identify some limited eelgrass at the far western end of the survey sites, copper concentrations in these locations would be well below the chronic water quality criteria by the time the discharge from the

outfall reached these areas.

Human Health Impact Assessment

The DEM also evaluated the potential impacts associated with the discharge from the RO reject wastestream on human health (the criteria which protects against unacceptable risk to public health from the ingestion of aquatic organisms applicable to the class SA{b} receiving water). In order to evaluate the effects of this discharge historical DMR data, application data, and estimated RO reject concentrations were compared to applicable human health criteria as established in the RI Water Quality Regulations. In order to determine the constituents that may enter the receiving water from the RO reject wastestream the DEM examined raw well water data collected during the period from February 2008 to October 2011. It was reported that during 2010-2011 the RO system was operating at an average recovery ratio of 41-44%. Using a conservative 44% RO system recovery ratio, the following equation was used to calculate the expected concentrations in the discharge at the end of pipe using raw well water data:

$$\text{Effluent} = (\text{Influent}/0.56)$$

After calculating the expected effluent concentrations for each parameter detected in the raw water wells, the DEM compared these values to applicable human health criteria. This comparison is shown in Attachment C. Based on our review and coordination with the DEM Shellfish Water Quality Monitoring Program it has been determined that the proposed discharge will not cause any adverse impacts to human health as it relates to consumption of aquatic organisms even within the established acute and chronic mixing zones.

Reasonable Potential

In accordance with 40 CFR 122.4(d)(1)(iii), it is only necessary to establish water quality-based permit limits for those pollutants in the discharge, which have the reasonable potential to cause or contribute to the exceedance of in-stream criteria. The permit application included information from past RIPDES monitoring discharge data, in addition to the results of periodic monitoring of the wells supplying the RO system. The DEM compared the application data and DMR effluent data reported during the period between September 2007 to December 2011 to determine which pollutants have reasonable potential to exceed applicable water quality based limitations.

The previous permit required the permittee to monitor the discharge flow and sample the effluent for TSS, pH, Total Copper, and Total Dissolved Solids. Based on a review of the DMR data provided to the DEM the highest total copper value detected in the system effluent was 270 ug/l. This maximum discharge value exceeds 50% of the daily maximum water quality-based limit from Attachment C. Therefore, based on the DMR data collected, there is reasonable potential for the discharge to violate the total copper permit limitations and the DEM has assigned limits for Total Copper. The Total Copper permit limitations applied in this permit at the new outfall location within the Sakonnet Harbor are more stringent than the Total Copper permit limitations specified in the previous permit. DMR data for pH indicates that the discharge will remain within the permitted range of 6.5-8.5 s.u. For a more detailed listing of the Discharge Monitoring Report Data please refer to Attachment D.

Because chemicals are not added to the RO feedwater, the characterization of the RO discharge to the outfall was calculated using the raw feedwater (well water) characterization and the permeate recovery ratio of the RO system. The raw well water is periodically monitored for inorganic contaminants, VOC's and SVOCs and this data was included as part of the permit application. The DEM reviewed this data and determined that there was no reasonable potential for any of the constituents detected, other than copper, to violate applicable water quality criteria.

Best Professional Judgement (BPJ) Limitations

The RIDEM has established BPJ limits for Flow, TSS, and TDS in accordance with Section 402(a)(1) of the Clean Water Act (CWA).

The permitted discharge flow limit of 5000 gpd has been selected to be consistent with the modeling completed as part of the *June 22, 2012 Sakonnet Point Club Discharge Outfall Relocation Analysis* and to provide a flow of potable water consistent with the approved Onsite Wastewater Treatment System (OWTS) that is currently installed at the SPC. This value will allow the water treatment system to produce a maximum daily potable water volume of 4,200 gpd, which is less than the OWTS design flow rate of 4,870 gpd and is therefore compatible with the facility design and operation. As a result the flow discharged from the RO system is limited to 5000 GPD. Based on a review of historical discharge monitoring report data, the average daily maximum flow discharging from outfall 001 was 2,279 gal/day and the highest daily maximum flow reported was 4008 gal/day. The average of the monthly average flow rates reported was 1081 gal/day. Additional information regarding historical discharge flows is summarized in Attachment D.

The requirements for total suspended solids (TSS) and total dissolved solids (TDS) have been set as monitor only, as TSS and TDS are RO "process-control parameters" that can aid in the assessment of the operation of the water treatment system.

Cleaning Chemicals

This permit does not authorize the discharge of chemicals, including any cleaning chemicals. All cleaning chemicals must be disposed of off-site in accordance with applicable State, Local, and Federal regulations. Therefore, since cleaning chemicals cannot be discharged under this permit, permit limits for cleaning chemicals are not required.

To ensure that all cleaning chemicals are disposed of appropriately, the permit requires that an annual report be submitted to the DEM. This report is due January 15th for the previous calendar year and must identify when each cleaning cycle was conducted and where the cleaning waste was disposed.

Outfall Integrity Inspection

This permit requires the permittee to conduct an annual inspection of the outfall structure to ensure that the physical integrity of the outfall structure has not been compromised. The results of each diffuser inspection must be submitted to the DEM by January 15th of the year following the inspection.

IV. Comment Period, Hearing Requests, and Procedures for Final Decisions

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to the Rhode Island Department of Environmental Management, Office of Water Resources, 235 Promenade Street, Providence, Rhode Island, 02908-5767. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to the DEM. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty (30) days public notice whenever the Director finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit the Director will respond to all significant comments and make these responses available to the public at DEM's Providence Office.

Following the close of the comment period, and after a public hearing, if such hearing is held, the Director will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice. Within thirty (30) days following the notice of the final permit decision any interested person may submit a request

for a formal hearing to reconsider or contest the final decision. Requests for formal hearings must satisfy the requirements of Rule 49 of the Regulations for the Rhode Island Pollutant Discharge Elimination System.

V. **DEM Contact**

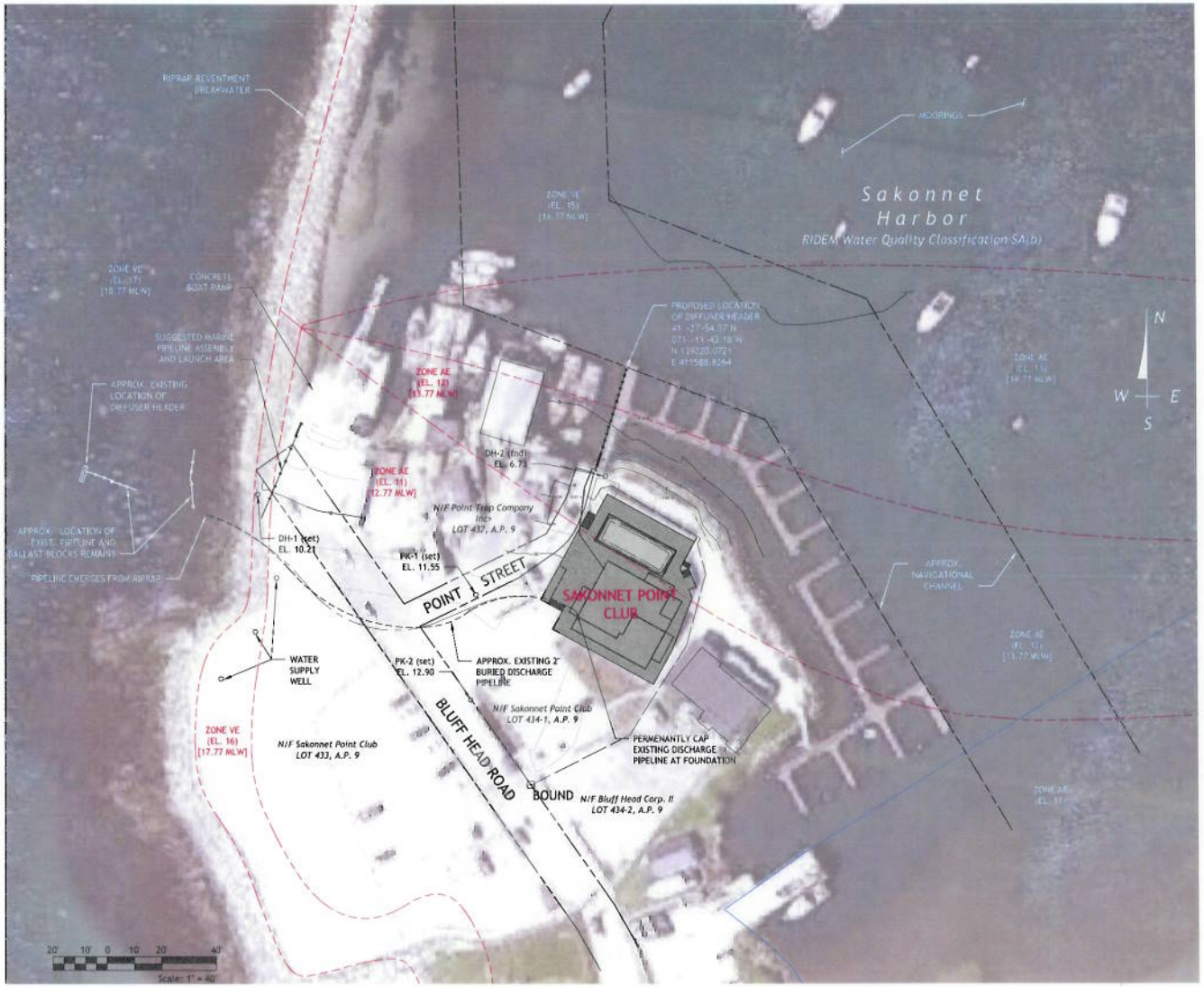
Additional information concerning the permit may be obtained between the hours of 8:30 a.m. and 4:00 p.m., Monday through Friday, excluding holidays, from:

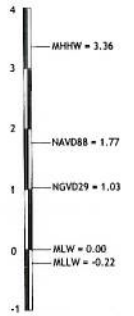
Brian Lafaille, PE
RIPDES Program
Office of Water Resources
Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908
Telephone: (401) 222-4700, ext. 7731

1/22/13
Date

Joseph B. Haberek, PE
Principal Sanitary Engineer
RIPDES Permitting Section
Office of Water Resources
Department of Environmental Management

Attachment A
Reverse Osmosis Effluent Discharge Pipeline
Overall Site Plan





VERTICAL DATUM CONVERSION DIAGRAM

REFERENCES

1. THE ELEVATION DATA ABOVE WAS COMPUTED FROM THE U.S. DEPARTMENT OF COMMERCE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, NATIONAL OCEAN SERVICE, FROM:
   STATION ID: 8450768
   NAME: TIDAL 1 BENCHMARK LW0620
   LOCATION: Little Compton, Rhode Island
2. ALL ELEVATIONS SHOWN ON THESE PLANS ARE RELATIVE TO LOCAL MLW DATUM AS ESTABLISHED BY RT GROUP, INC. IN APRIL 2008.
3. FEMA FLOOD ELEVATION INFORMATION SHOWN ON THIS PLAN WAS TAKEN FROM THE FLOOD INSURANCE RATE MAP (FIRM), NEWPORT COUNTY, RHODE ISLAND, PANEL 204 OF 226, FIRM MAP NUMBER 44005C0204H, EFFECTIVE DATE APRIL 5, 2010. ELEVATION SHOWN IN PARENTHESIS ARE RELATIVE TO NAVD 88.
4. THE ENTIRE PROJECT SITE IS WITHIN THE SPECIAL FLOOD HAZARD AREA SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD.
5. PROPERTY LINES AS SHOWN ON THESE PLANS WERE TAKEN FROM A PLAN ENTITLED: *PLAN OF BLUFF HEAD AVENUE AND POINT STREET IN AND FOR THE TOWN OF LITTLE COMPTON, RHODE ISLAND*, PREPARED BY: STANLEY ENGINEERING, INC., SCALE: 1"=20', DATED: JANUARY, 1997. PROPERTY LINES AS SHOWN ARE CONSIDERED APPROXIMATE.

VERTICAL CONTROL

PROJECT BENCHMARK:
GEODETIC DISK LW0620,
ELEVATION=5.99 FEET (NAVD88) 7.76 FEET (MLW)

HORIZONTAL CONTROL

HORIZONTAL DATUM BASIS IS RHODE STATE PLANE COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD 83).

PERMIT SUBMISSION
NOT FOR CONSTRUCTION
THIS DRAWING IS HALF SIZE

RT Group, Inc.
Engineered from the Ground Up
197 Taunton Avenue, Suite 202
East Providence, Rhode Island 02914
T 401 438 3100 F 401 438 5275
Geotechnical Watershed Structural Civil Geo-Environmental

DSGN	SWO
DR	SWO
CHK	JBR
APVD	SWO

No.	DATE	REVISIONS	BY	APVD

BAR IS ONE INCH ON ORIGINAL DRAWING.
0 ——— 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVERSE OSMOSIS EFFLUENT DISCHARGE **PIPELINE**
Sakonnet Point Club
11 Bluff Head Ave.
Little Compton, Rhode Island

OVERALL SITE PLAN

SHEET	3 OF 9
DWG No.	C-01
DATE	MAY 2012
PROJ No.	11107.02

Attachment B
Calculation of Allowable Acute and Chronic Discharge Limitations Based on Saltwater Aquatic Life Criteria and Human Health Criteria

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS
FACILITY SPECIFIC DATA INPUT SHEET

NOTE: LIMITS BASED ON RI WATER QUALITY CRITERIA DATED JULY 2006

FACILITY NAME: **SPC 2012 SH**

RIPDES PERMIT #: **RI0023558**

	DISSOLVED BACKGROUND DATA (ug/L)	ACUTE METAL TRANSLATOR	CHRONIC METAL TRANSLATOR
ALUMINUM	NA	NA	NA
ARSENIC	NA	1	1
CADMIUM	0.0361	0.994	0.994
CHROMIUM III	NA	NA	NA
CHROMIUM VI	0.173	0.993	0.993
COPPER	0.818	0.83	0.83
LEAD	0.083	0.951	0.951
MERCURY	NA	0.85	NA
NICKEL	1.61	0.99	0.99
SELENIUM	NA	0.998	0.998
SILVER	0.007	0.85	0.85
ZINC	NA	0.946	0.946

USE NA WHEN NO DATA IS AVAILABLE

NOTE 1: BACKGROUND DATA BASED ON AVERAGE DATA SINBADD Cruises, Stations 18 and 19: 10/21-24/85, 11/18-21/85, 4/7-10/86, 5/19-20/86.

NOTE 2: METAL TRANSLATORS FROM RI WATER QUALITY REGS.

DILUTION FACTORS		
ACUTE =	73.7	x
CHRONIC =	243	x
HUMAN HEALTH =	243	x

NOTE: TEST WWTF'S DILUTION FACTORS OBTAINED FROM A DYE STUDY.

TOTAL AMMONIA CRITERIA (ug/L)		
WINTER	ACUTE =	6000
	CHRONIC =	900
SUMMER	ACUTE =	4600
	CHRONIC =	690

NOTE 1: LIMITS ARE FROM TABLE 3 IN THE RI WATER QUALITY REGS. USING:
SALINITY = 30 g/Kg
WINTER (NOV-APRIL) pH=8.4 s.u.;
SUMMER (MAY-OCT) pH=8.2 s.u.
WINTER (NOV-APRIL) TEMP=10.0 C;
SUMMER (MAY-OCT) TEMP=20.0 C.

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: SPC 2012 SH RIPDES PERMIT #: RI0023558

NOTE: METALS CRITERIA ARE DISSOLVED, METALS LIMITS ARE TOTAL; AMMONIA CRITERIA AND LIMITS HAVE BEEN CONVERTED TO ug/l N.

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	SALTWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	SALTWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
PRIORITY POLLUTANTS:							
TOXIC METALS AND CYANIDE							
ANTIMONY	7440360			No Criteria		640	124416
ARSENIC (limits are total recoverable)	7440382	NA	69	4068.24	36	1.4	272.16
ASBESTOS	1332214			No Criteria			No Criteria
BERYLLIUM	7440417			No Criteria			No Criteria
CADMIUM (limits are total recoverable)	7440439	0.0361	40	2666.57498	8.8		1927.388129
CHROMIUM III (limits are total recoverable)	16065831	NA		No Criteria			No Criteria
CHROMIUM VI (limits are total recoverable)	18540299	0.173	1100	73464.67563	50		10969.92346
COPPER (limits are total recoverable)	7440508	0.818	4.8	311.9462651	1.27		133.3180723
CYANIDE	57125		1	58.96	1	140	194.4
LEAD (limits are total recoverable)	7439921	0.083	210	14640.65815	8.1		1841.623554
MERCURY (limits are total recoverable)	7439976	NA	1.8	124.8564706	0.94	0.15	29.16
NICKEL (limits are total recoverable)	7440020	1.61	74	4839.770707	2.93	4600	325.6262626
SELENIUM (limits are total recoverable)	7782492	NA	290	17132.66533	71	4200	13830.06012
SILVER (limits are total recoverable)	7440224	0.007	1.9	147.6683529			No Criteria
THALLIUM	7440280			No Criteria		0.47	91.368
ZINC (limits are total recoverable)	7440666	NA	90	5609.302326	81	26000	16645.24313
VOLATILE ORGANIC COMPOUNDS							
ACROLEIN	107028			No Criteria		290	56376
ACRYLONITRILE	107131			No Criteria		2.5	486
BENZENE	71432			No Criteria		510	99144
BROMOFORM	75252			No Criteria		1400	272160
CARBON TETRACHLORIDE	56235			No Criteria		16	3110.4
CHLOROBENZENE	108907			No Criteria		1600	311040
CHLORODIBROMOMETHANE	124481			No Criteria		130	25272
CHLOROFORM	67663			No Criteria		4700	913680
DICHLOROBROMOMETHANE	75274			No Criteria		170	33048
1,2DICHLOROETHANE	107062			No Criteria		370	71928
1,1DICHLOROETHYLENE	75354			No Criteria		7100	1380240
1,2DICHLOROPROPANE	78875			No Criteria		150	29160
1,3DICHLOROPROPYLENE	542756			No Criteria		21	4082.4
ETHYLBENZENE	100414			No Criteria		2100	408240
BROMOMETHANE (methyl bromide)	74839			No Criteria		1500	291600
CHLOROMETHANE (methyl chloride)	74873			No Criteria			No Criteria
METHYLENE CHLORIDE	75092			No Criteria		5900	1146960

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: SPC 2012 SH RIPDES PERMIT #: RI0023558

NOTE: METALS CRITERIA ARE DISSOLVED, METALS LIMITS ARE TOTAL; AMMONIA CRITERIA AND LIMITS HAVE BEEN CONVERTED TO ug/l N.

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	SALTWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	SALTWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
1,1,2,2TETRACHLOROETHANE	79345			No Criteria		40	7776
TETRACHLOROETHYLENE	127184			No Criteria		33	6415.2
TOLUENE	108883			No Criteria		15000	2916000
1,2TRANSDICHLOROETHYLENE	156605			No Criteria		10000	1944000
1,1,1TRICHLOROETHANE	71556			No Criteria			No Criteria
1,1,2TRICHLOROETHANE	79005			No Criteria		160	31104
TRICHLOROETHYLENE	79016			No Criteria		300	58320
VINYL CHLORIDE	75014			No Criteria		2.4	466.56
ACID ORGANIC COMPOUNDS							
2CHLOROPHENOL	95578			No Criteria		150	29160
2,4DICHLOROPHENOL	120832			No Criteria		290	56376
2,4DIMETHYLPHENOL	105679			No Criteria		850	165240
4,6DINITRO2METHYL PHENOL	534521			No Criteria		280	54432
2,4DINITROPHENOL	51285			No Criteria		5300	1030320
4NITROPHENOL	88755			No Criteria			No Criteria
PENTACHLOROPHENOL	87865		13	766.48	7.9	30	1535.76
PHENOL	108952			No Criteria		1700000	330480000
2,4,6TRICHLOROPHENOL	88062			No Criteria		24	4665.6
BASE NEUTRAL COMPUNDS							
ACENAPHTHENE	83329			No Criteria		990	192456
ANTHRACENE	120127			No Criteria		40000	7776000
BENZIDINE	92875			No Criteria		0.002	0.3888
POLYCYCLIC AROMATIC HYDROCARBONS				No Criteria		0.18	34.992
BIS(2CHLOROETHYL)ETHER	111444			No Criteria		5.3	1030.32
BIS(2CHLOROISOPROPYL)ETHER	108601			No Criteria		65000	12636000
BIS(2ETHYLHEXYL)PHTHALATE	117817			No Criteria		22	4276.8
BUTYL BENZYL PHTHALATE	85687			No Criteria		1900	369360
2CHLORONAPHTHALENE	91587			No Criteria		1600	311040
1,2DICHLOROBENZENE	95501			No Criteria		1300	252720
1,3DICHLOROBENZENE	541731			No Criteria		960	186624
1,4DICHLOROBENZENE	106467			No Criteria		190	36936
3,3DICHLOROBENZIDENE	91941			No Criteria		0.28	54.432
DIETHYL PHTHALATE	84662			No Criteria		44000	8553600
DIMETHYL PHTHALATE	131113			No Criteria		1100000	213840000
DInBUTYL PHTHALATE	84742			No Criteria		4500	874800
2,4DINITROTOLUENE	121142			No Criteria		34	6609.6

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: SPC 2012 SH RIPDES PERMIT #: RI0023558

NOTE: METALS CRITERIA ARE DISSOLVED, METALS LIMITS ARE TOTAL; AMMONIA CRITERIA AND LIMITS HAVE BEEN CONVERTED TO ug/l N.

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	SALTWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	SALTWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
1,2DIPHENYLHYDRAZINE	122667			No Criteria		2	388.8
FLUORANTHENE	206440			No Criteria		140	27216
FLUORENE	86737			No Criteria		5300	1030320
HEXACHLOROBENZENE	118741			No Criteria		0.0029	0.56376
HEXACHLOROBUTADIENE	87683			No Criteria		180	34992
HEXACHLOROCYCLOPENTADIENE	77474			No Criteria		1100	213840
HEXACHLOROETHANE	67721			No Criteria		33	6415.2
ISOPHORONE	78591			No Criteria		9600	1866240
NAPHTHALENE	91203			No Criteria			No Criteria
NITROBENZENE	98953			No Criteria		690	134136
NNITROSODIMETHYLAMINE	62759			No Criteria		30	5832
NNITROSODINPROPYLAMINE	621647			No Criteria		5.1	991.44
NNITROSODIPHENYLAMINE	86306			No Criteria		60	11664
PYRENE	129000			No Criteria		4000	777600
1,2,4trichlorobenzene	120821			No Criteria		70	13608
PESTICIDES/PCBs							
ALDRIN	309002		1.3	76.648		0.0005	0.0972
Alpha BHC	319846			No Criteria		0.049	9.5256
Beta BHC	319857			No Criteria		0.17	33.048
Gamma BHC (Lindane)	58899		0.16	9.4336		1.8	349.92
CHLORDANE	57749		0.09	5.3064	0.004	0.0081	0.7776
4,4DDT	50293		0.13	7.6648	0.001	0.0022	0.1944
4,4DDE	72559			No Criteria		0.0022	0.42768
4,4DDD	72548			No Criteria		0.0031	0.60264
DIELDRIN	60571		0.71	41.8616	0.0019	0.00054	0.104976
ENDOSULFAN (alpha)	959988		0.034	2.00464	0.0087	89	1.69128
ENDOSULFAN (beta)	33213659		0.034	2.00464	0.0087	89	1.69128
ENDOSULFAN (sulfate)	1031078			No Criteria		89	17301.6
ENDRIN	72208		0.037	2.18152	0.0023	0.06	0.44712
ENDRIN ALDEHYDE	7421934			No Criteria		0.3	58.32
HEPTACHLOR	76448		0.053	3.12488	0.0036	0.00079	0.153576
HEPTACHLOR EPOXIDE	1024573		0.053	3.12488	0.0036	0.00039	0.075816
POLYCHLORINATED BIPHENYLS3	1336363			No Criteria	0.03	0.00064	0.124416
2,3,7,8TCDD (Dioxin)	1746016			No Criteria		0.000000051	9.9144E-06
TOXAPHENE	8001352		0.21	12.3816	0.0002	0.0028	0.03888
TRIBUTYLTIN			0.42	24.7632	0.0074		1.43856

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: SPC 2012 SH RIPDES PERMIT #: RI0023558

NOTE: METALS CRITERIA ARE DISSOLVED, METALS LIMITS ARE TOTAL; AMMONIA CRITERIA AND LIMITS HAVE BEEN CONVERTED TO ug/l N.

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	SALTWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	SALTWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
NON PRIORITY POLLUTANTS:							
OTHER SUBSTANCES							
ALUMINUM (limits are total recoverable)	7429905	NA		No Criteria			No Criteria
AMMONIA as N (winter/summer)	7664417		4932 | 3781.2	290791 222940	739.8 | 567.2		143817 | 110260
4BROMOPHENYL PHENYL ETHER				No Criteria			No Criteria
CHLORIDE	16887006			No Criteria			No Criteria
CHLORINE	7782505		13	958.1	7.5		1822.5
4CHLORO2METHYLPHENOL				No Criteria			No Criteria
1CHLORONAPHTHALENE				No Criteria			No Criteria
4CHLOROPHENOL	106489			No Criteria			No Criteria
2,4DICHLORO6METHYLPHENOL				No Criteria			No Criteria
1,1DICHLOROPROPANE				No Criteria			No Criteria
1,3DICHLOROPROPANE	142289			No Criteria			No Criteria
2,3DINITROTOLUENE				No Criteria			No Criteria
2,4DINITRO6METHYL PHENOL				No Criteria			No Criteria
IRON	7439896			No Criteria			No Criteria
pentachlorobenzene	608935			No Criteria			No Criteria
PENTACHLOROETHANE				No Criteria			No Criteria
1,2,3,5tetrachlorobenzene				No Criteria			No Criteria
1,1,1,2TETRACHLOROETHANE	630206			No Criteria			No Criteria
2,3,4,6TETRACHLOROPHENOL	58902			No Criteria			No Criteria
2,3,5,6TETRACHLOROPHENOL				No Criteria			No Criteria
2,4,5TRICHLOROPHENOL	95954			No Criteria			No Criteria
2,4,6TRINITROPHENOL	88062			No Criteria			No Criteria
XYLENE	1330207			No Criteria			No Criteria

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: SPC 2012 SH

RIPDES PERMIT #: RI0023558

CHEMICAL NAME	CAS#	DAILY MAX LIMIT (ug/L)	MONTHLY AVE LIMIT (ug/L)
PRIORITY POLLUTANTS:			
TOXIC METALS AND CYANIDE			
ANTIMONY	7440360	No Criteria	124416.00
ARSENIC, TOTAL	7440382	4068.24	272.16
ASBESTOS	1332214	No Criteria	No Criteria
BERYLLIUM	7440417	No Criteria	No Criteria
CADMIUM, TOTAL	7440439	2666.57	1927.39
CHROMIUM III, TOTAL	16065831	No Criteria	No Criteria
CHROMIUM VI, TOTAL	18540299	73464.68	10969.92
COPPER, TOTAL	7440508	311.95	133.32
CYANIDE	57125	58.96	58.96
LEAD, TOTAL	7439921	14640.66	1841.62
MERCURY, TOTAL	7439976	124.86	29.16
NICKEL, TOTAL	7440020	4839.77	325.63
SELENIUM, TOTAL	7782492	17132.67	13830.06
SILVER, TOTAL	7440224	147.67	No Criteria
THALLIUM	7440280	No Criteria	91.37
ZINC, TOTAL	7440666	5609.30	5609.30
VOLATILE ORGANIC COMPOUNDS			
ACROLEIN	107028	No Criteria	56376.00
ACRYLONITRILE	107131	No Criteria	486.00
BENZENE	71432	No Criteria	99144.00
BROMOFORM	75252	No Criteria	272160.00
CARBON TETRACHLORIDE	56235	No Criteria	3110.40
CHLOROBENZENE	108907	No Criteria	311040.00
CHLORODIBROMOMETHANE	124481	No Criteria	25272.00
CHLOROFORM	67663	No Criteria	913680.00
DICHLOROBROMOMETHANE	75274	No Criteria	33048.00
1,2DICHLOROETHANE	107062	No Criteria	71928.00
1,1DICHLOROETHYLENE	75354	No Criteria	1380240.00
1,2DICHLOROPROPANE	78875	No Criteria	29160.00
1,3DICHLOROPROPYLENE	542756	No Criteria	4082.40
ETHYLBENZENE	100414	No Criteria	408240.00
BROMOMETHANE (methyl bromide)	74839	No Criteria	291600.00
CHLOROMETHANE (methyl chloride)	74873	No Criteria	No Criteria
METHYLENE CHLORIDE	75092	No Criteria	1146960.00
1,1,2,2TETRACHLOROETHANE	79345	No Criteria	7776.00
TETRACHLOROETHYLENE	127184	No Criteria	6415.20
TOLUENE	108883	No Criteria	2916000.00
1,2TRANSDICHLOROETHYLENE	156605	No Criteria	1944000.00
1,1,1TRICHLOROETHANE	71556	No Criteria	No Criteria
1,1,2TRICHLOROETHANE	79005	No Criteria	31104.00
TRICHLOROETHYLENE	79016	No Criteria	58320.00
VINYL CHLORIDE	75014	No Criteria	466.56
ACID ORGANIC COMPOUNDS			
2CHLOROPHENOL	95578	No Criteria	29160.00
2,4DICHLOROPHENOL	120832	No Criteria	56376.00
2,4DIMETHYLPHENOL	105679	No Criteria	165240.00
4,6DINITRO2METHYL PHENOL	534521	No Criteria	54432.00
2,4DINITROPHENOL	51285	No Criteria	1030320.00
4NITROPHENOL	88755	No Criteria	No Criteria
PENTACHLOROPHENOL	87865	766.48	766.48
PHENOL	108952	No Criteria	330480000.00
2,4,6TRICHLOROPHENOL	88062	No Criteria	4665.60
BASE NEUTRAL COMPUNDS			
ACENAPHTHENE	83329	No Criteria	192456.00
ANTHRACENE	120127	No Criteria	7776000.00
BENZIDINE	92875	No Criteria	0.39
PAHs		No Criteria	34.99
BIS(2CHLOROETHYL)ETHER	111444	No Criteria	1030.32
BIS(2CHLOROISOPROPYL)ETHER	108601	No Criteria	12636000.00
BIS(2ETHYLHEXYL)PHTHALATE	117817	No Criteria	4276.80
BUTYL BENZYL PHTHALATE	85687	No Criteria	369360.00
2CHLORONAPHTHALENE	91587	No Criteria	311040.00
1,2DICHLOROBENZENE	95501	No Criteria	252720.00
1,3DICHLOROBENZENE	541731	No Criteria	186624.00
1,4DICHLOROBENZENE	106467	No Criteria	36936.00
3,3DICHLOROBENZIDENE	91941	No Criteria	54.43
DIETHYL PHTHALATE	84662	No Criteria	8553600.00
DIMETHYL PHTHALATE	131113	No Criteria	213840000.00
DI-n-BUTYL PHTHALATE	84742	No Criteria	874800.00
2,4DINITROTOLUENE	121142	No Criteria	6609.60
1,2DIPHENYLHYDRAZINE	122667	No Criteria	388.80
FLUORANTHENE	206440	No Criteria	27216.00

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: SPC 2012 SH RIPDES PERMIT #: RI0023558

CHEMICAL NAME	CAS#	DAILY MAX LIMIT (ug/L)	MONTHLY AVE LIMIT (ug/L)
FLUORENE	86737	No Criteria	1030320.00
HEXACHLOROBENZENE	118741	No Criteria	0.56
HEXACHLOROBUTADIENE	87683	No Criteria	34992.00
HEXACHLOROCYCLOPENTADIENE	77474	No Criteria	213840.00
HEXACHLOROETHANE	67721	No Criteria	6415.20
ISOPHORONE	78591	No Criteria	1866240.00
NAPHTHALENE	91203	No Criteria	No Criteria
NITROBENZENE	98953	No Criteria	134136.00
N-NITROSODIMETHYLAMINE	62759	No Criteria	5832.00
N-NITROSODI-N-PROPYLAMINE	621647	No Criteria	991.44
N-NITROSODIPHENYLAMINE	86306	No Criteria	11664.00
PYRENE	129000	No Criteria	777600.00
1,2,4trichlorobenzene	120821	No Criteria	13608.00
PESTICIDES/PCBs			
ALDRIN	309002	76.65	0.10
Alpha BHC	319846	No Criteria	9.53
Beta BHC	319857	No Criteria	33.05
Gamma BHC (Lindane)	58899	9.43	9.43
CHLORDANE	57749	5.31	0.78
4,4DDT	50293	7.66	0.19
4,4DDE	72559	No Criteria	0.43
4,4DDD	72548	No Criteria	0.60
DIELDRIN	60571	41.86	0.10
ENDOSULFAN (alpha)	959988	2.00	1.69
ENDOSULFAN (beta)	33213659	2.00	1.69
ENDOSULFAN (sulfate)	1031078	No Criteria	17301.60
ENDRIN	72208	2.18	0.45
ENDRIN ALDEHYDE	7421934	No Criteria	58.32
HEPTACHLOR	76448	3.12	0.15
HEPTACHLOR EPOXIDE	1024573	3.12	0.08
POLYCHLORINATED BIPHENYLS3	1336363	No Criteria	0.12
2,3,7,8TCDD (Dioxin)	1746016	No Criteria	0.00
TOXAPHENE	8001352	12.38	0.04
TRIBUTYLTIN		24.76	1.44

CHEMICAL NAME	CAS#	DAILY MAX LIMIT (ug/L)	MONTHLY AVE LIMIT (ug/L)
NON PRIORITY POLLUTANTS:			
OTHER SUBSTANCES			
ALUMINUM, TOTAL	7429905	No Criteria	No Criteria
AMMONIA (as N), WINTER (NOV-APR	7664417	290790.72	143817.12
AMMONIA (as N), SUMMER (MAY-OC	7664417	222939.55	110259.79
4BROMOPHENYL PHENYL ETHER		No Criteria	No Criteria
CHLORIDE	16887006	No Criteria	No Criteria
CHLORINE	7782505	958.10	958.10
4CHLORO2METHYLPHENOL		No Criteria	No Criteria
1CHLORONAPHTHALENE		No Criteria	No Criteria
4CHLOROPHENOL	106489	No Criteria	No Criteria
2,4DICHLORO6METHYLPHENOL		No Criteria	No Criteria
1,1DICHLOROPROPANE		No Criteria	No Criteria
1,3DICHLOROPROPANE	142289	No Criteria	No Criteria
2,3DINITROTOLUENE		No Criteria	No Criteria
2,4DINITRO6METHYL PHENOL		No Criteria	No Criteria
IRON	7439896	No Criteria	No Criteria
pentachlorobenzene	608935	No Criteria	No Criteria
PENTACHLOROETHANE		No Criteria	No Criteria
1,2,3,5tetrachlorobenzene		No Criteria	No Criteria
1,1,1,2TETRACHLOROETHANE	630206	No Criteria	No Criteria
2,3,4,6TETRACHLOROPHENOL	58902	No Criteria	No Criteria
2,3,5,6TETRACHLOROPHENOL		No Criteria	No Criteria
2,4,5TRICHLOROPHENOL	95954	No Criteria	No Criteria
2,4,6TRINITROPHENOL	88062	No Criteria	No Criteria
XYLENE	1330207	No Criteria	No Criteria

Attachment C
Comparison of Effluent Data to Saltwater Aquatic Life Criteria and Human Health Criteria

Sakonnet Point Club
Bluff Head Avenue
Little Compton, RI

Parameter	Permit Application Data (ug/L) 6/27/2012		Max DMR Effluent Data (ug/L) 9/07 - 12/11		RO Reject Concentration using Raw Well Water Data from 2/08 - 10/11 (ug/l)	Concentration Limits (ug/L) Based on WQ Criteria		Human Health Criteria (ug/l) For Consumption of:	Reasonable Potential (Yes/No)
	Max	Ave	Daily Max	Monthly Ave		Daily Max	Monthly Ave	Aquatic Organisms Only	
COPPER, TOTAL	270	---	270	270	---	312.00	133.00	No Criteria	YES
NAPHTHALENE	14	---	---	---	13.9	No Criteria	No Criteria	No Criteria	NO
TSS	100,000	---	100,000	100,000	---	No Criteria	No Criteria	No Criteria	NO
pH (min, max) (s.u)	7.7	6.39	7.9	6.1	6.1	No Criteria	No Criteria	No Criteria	NO
FLOW (gpd)	4008	1044	4008	1915	---	No Criteria	No Criteria	No Criteria	NO
TOTAL DISSOLVED SOLIDS	---	---	42,000	42,000	---	No Criteria	No Criteria	No Criteria	NO
SULFATE	3,800,000	---	---	---	3392857.1	No Criteria	No Criteria	No Criteria	NO
MAGNESIUM	2,000	---	---	---	1750000	No Criteria	No Criteria	No Criteria	NO
MANGANESE	7,000	---	---	---	5517.9	No Criteria	No Criteria	No Criteria	NO
NITRATE-NITRITE (as N)	1,800	---	---	---	1696.4	No Criteria	No Criteria	No Criteria	NO
STYRENE	---	---	---	---	1.2	No Criteria	No Criteria	No Criteria	NO
METHYL TERTIARY BUTYL ETHER	---	---	---	---	1.2	No Criteria	No Criteria	No Criteria	NO
SODIUM	---	---	---	---	9392857.1	No Criteria	No Criteria	No Criteria	NO
ALKALINITY (as CACO3)	---	---	---	---	150000	No Criteria	No Criteria	No Criteria	NO
CHLORIDE	---	---	---	---	23214285.7	No Criteria	No Criteria	No Criteria	NO
CALCIUM	---	---	---	---	2607142.9	No Criteria	No Criteria	No Criteria	NO
IRON	---	---	---	---	4000	No Criteria	No Criteria	No Criteria	NO
POTASSIUM	---	---	---	---	137142.9	No Criteria	No Criteria	No Criteria	NO

Attachment D
Discharge Monitoring Report Data Summary

THE SAKONNET POINT CLUB

Discharge Monitoring Report Data Listing 8-1-2005 to 8-1-2012

Outfall 001A

Copper, total (as Cu)	MO AVG (ug/l)	DAILY MX (ug/l)	Flow	MO AVG (gal/day)	DAILY MX (gal/day)
09/30/2007	133.0	133	09/30/2007	20.0	20.0
12/31/2007	No Discharge	No Discharge	12/31/2007	No Discharge	No Discharge
03/31/2008	0.0	0.0	03/31/2008	805.9	956.8
06/30/2008	0.0	0.0	06/30/2008	924.0	1804.0
09/30/2008	31.0	31.0	09/30/2008	1461.0	2634.0
12/31/2008	11.0	11.0	12/31/2008	1194.0	2415.0
03/31/2009	11.0	11.0	03/31/2009	1159.0	2296.0
06/30/2009	24.0	24.0	06/30/2009	1290.0	2409.0
09/30/2009	270.0	270.0	09/30/2009	1915.0	2588.0
12/31/2009	25.0	25.0	12/31/2009	1179.0	2361.0
03/31/2010	No Discharge	No Discharge	03/31/2010	1029.0	2079.0
06/30/2010	0.2	0.2	06/30/2010	1518.0	3191.0
09/30/2010	0.0	0.0	09/30/2010	1726.0	3370.0
12/31/2010	0.0	0.0	12/31/2010	1122.0	3242.0
03/31/2011	0.0	0.0	03/31/2011	1023.0	2200.0
06/30/2011	0.0	0.0	06/30/2011	838.0	1715.0
09/30/2011	32.5	65.0	09/30/2011	544.0	4008.0
12/31/2011	11.0	11.0	12/31/2011	633.0	1461.0
03/31/2012	No Discharge	No Discharge	03/31/2012	No Discharge	No Discharge
06/30/2012	No Discharge	No Discharge	06/30/2012	No Discharge	No Discharge
AVERAGE	**34.3**	**36.3**	**AVERAGE**	**1081.2**	**2279.4**
MINIMUM	**0.0**	**0.0**	**MINIMUM**	**20.0**	**20.0**
MAXIMUM	**270.0**	**270.0**	**MAXIMUM**	**1915.0**	**4008.0**

pH	MINIMUM (SU)	MAXIMUM (SU)	TDS	MO AVG (mg/l)	DAILY MX (mg/l)
09/30/2007	6.1	6.1	09/30/2007	26000.0	26000.0
12/31/2007	No Discharge	No Discharge	12/31/2007	No Discharge	No Discharge
03/31/2008	6.6	6.6	03/31/2008	42000.0	42000.0
06/30/2008	6.9	6.9	06/30/2008	41000.0	41000.0
09/30/2008	7.0	7.3	09/30/2008	18000.0	18000.0
12/31/2008	7.1	7.9	12/31/2008	17000.0	17000.0
03/31/2009	7.0	7.5	03/31/2009	17000.0	17000.0
06/30/2009	6.8	7.7	06/30/2009	28000.0	28000.0
09/30/2009	6.4	7.3	09/30/2009	26000.0	26000.0
12/31/2009	7.2	7.5	12/31/2009	18000.0	18000.0
03/31/2010	7.0	7.8	03/31/2010	16000.0	16000.0
06/30/2010	7.6	7.9	06/30/2010	22000.0	22000.0
09/30/2010	7.3	7.9	09/30/2010	30000.0	30000.0
12/31/2010	7.2	7.7	12/31/2010	9267.0	16000.0
03/31/2011	7.3	7.6	03/31/2011	14333.0	17000.0
06/30/2011	7.2	7.5	06/30/2011	16500.0	20000.0
09/30/2011	7.2	7.2	09/30/2011	13000.0	15000.0
12/31/2011	7.6	7.6	12/31/2011	12000.0	12000.0
03/31/2012	No Discharge	No Discharge	03/31/2012	No Discharge	No Discharge
06/30/2012	No Discharge	No Discharge	06/30/2012	No Discharge	No Discharge
AVERAGE	**7.0**	**7.4**	**AVERAGE**	**21535.3**	**22411.8**
MINIMUM	**6.1**	**6.1**	**MINIMUM**	**9267.0**	**12000.0**
MAXIMUM	**7.6**	**7.9**	**MAXIMUM**	**42000.0**	**42000.0**

THE SAKONNET POINT CLUB

Discharge Monitoring Report Data Listing 8-1-2005 to 8-1-2012

Outfall 001A

TSS	MO AVG (mg/l)	DAILY MX (mg/l)
09/30/2007	36.0	36.0
12/31/2007	No Discharge	No Discharge
03/31/2008	49.0	49.0
06/30/2008	32.0	32.0
09/30/2008	18.0	18.0
12/31/2008	20.0	20.0
03/31/2009	15.0	15.0
06/30/2009	39.0	39.0
09/30/2009	100.0	100.0
12/31/2009	58.0	58.0
03/31/2010	54.0	54.0
06/30/2010	40.0	40.0
09/30/2010	9.0	9.0
12/31/2010	11.7	20.0
03/31/2011	16.3	25.0
06/30/2011	25.5	40.0
09/30/2011	25.9	42.0
12/31/2011	10.0	10.0
03/31/2012	No Discharge	No Discharge
06/30/2012	No Discharge	No Discharge
AVERAGE	**32.9**	**35.7**
MINIMUM	**9.0**	**9.0**
MAXIMUM	**100.0**	**100.0**

RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
235 Promenade Street, Providence, RI 02908-5767 TDD 401-222-4462

January 22, 2013
Mr. Michael Sullivan
Sakonnet Point Club
50 Sakonnet Pt. Road
Little Compton, RI 02837

RE: **Water Quality Certificate – Sakonnet Point Club**
WQC File No. 12-026

Dear Mr. Sullivan:

The RIDEM-Office of Water Resources has reviewed the above referenced project for compliance with the State Water Quality Regulations. The project involves relocating the Club's reverse osmosis discharge outfall to the Sakonnet Harbor.

We have reviewed the subject application and site plans entitled "Reverse Osmosis Effluent Discharge Pipeline," sheets 1 through 9, dated May, 2012. The State Water associated with this project is the Sakonnet Harbor, Class SA(b).

It is the determination of the Water Quality Certification Program that said project is in compliance with the requirements of the State Water Quality regulations provided that the applicant complies with the above plans and the following conditions:

1. Material used for fill and construction is clean and free of matter that could cause pollution of the waters of the State.

2. Prior to construction, proper erosion and sedimentation controls/procedures, as identified in the above-referenced plans, are installed and maintained in functional condition for the duration of the construction project.

3. No sewage, refuse, or waste of any kind shall be discharged into waters of the State from activities associated with the development of these parcels.

4. You must notify this Program in writing immediately prior to the commencement of site alterations and upon completion of the project.

5. A copy of this permit must be kept at the site at all times during site preparation, construction, and final stabilization. Copies of this permit must be made available for review by any DEM or Town representative upon request.

6. Prior to commencement of site alterations, you shall erect or post a sign resistant to the weather and at least twelve (12) inches wide and eighteen (18) inches long, which boldly identifies the initials "DEM" and the WQC application number of this permit. The sign must be maintained at the site in a conspicuous location until such time that the project is complete.

7. You must provide written certification from a registered land surveyor or registered professional

engineer that the outfall identified within the above-referenced plan set have been constructed/installed in accordance with the site plans approved by this permit. This written certification must be submitted to this Program within twenty (20) days of its request or upon completion of the project.

8. This Water Quality Certification shall expire July 1, 2016.

9. This Water Quality Certification does not relieve your obligation to obtain any other applicable local, state, and federal permits prior to commencing construction.

In addition to any necessary enforcement actions stemming from the violation of any of the terms or conditions of this Water Quality Certificate, issuance of this Water Quality Certificate does not bar the Department, or any of its various Divisions, from instituting any investigation and /or enforcement actions that it may deem necessary for violations of any and all applicable statutes, regulations and/or permits, including but not limited to violations of the terms or conditions of any previous Water Quality Certificate(s) issued to you as an applicant or for this site.

This is the State's Water Quality Certification, which shall have the full force and effect of a permit issued by the Director. Violation of the terms and conditions of this Certification may result in violation of the State's Water Quality Regulations and appropriate enforcement action.

Sincerely,

Angelo S. Liberti, P.E., Chief
Surface Water Protection

ASL/TJW

ec:
Grover Fugate, RICRMC