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,

The City of Newport **43 Broadway** **Newport, RI 02840**	**and**	**United Water Environmental Services, Inc.** **250 Connell Highway** **Newport, RI 02840**

are authorized to discharge from a facility located at

The Newport Pollution Control Plant (Newport WPCP)
250 Connell Highway
Newport, RI 02840,
Washington Street Combined Sewer Overflow (CSO) Facility, and
Wellington Avenue CSO Facility

to receiving waters named

Narragansett Bay - Newport Harbor/Coddington Cove
Water Body ID #: RI0007030E-01B (Newport WPCP)
and RI0007030E-01C (CSO Facilities)

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

This permit shall become effective on June 1, 2015.

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

This permit supersedes the permit issued on September 28, 2007.

This permit consists of 27 pages in Part I including effluent limitations, monitoring requirements, etc. and 10 pages in Part II including General Conditions.

Signed this 24th day of April 2015.

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 001A (Newport WPCP effluent at the end of the chlorine contact chamber after dechlorination). 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 Annual	Average Monthly	Maximum Daily	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Flow[1]	--- MGD	16.0 MGD	19.7 MGD				Continuous	Recorder
Flow[2]	13.1 MGD	16.0 MGD	30.0 MGD				Continuous	Recorder
Flow[3]	11.7 MGD	--- MGD[4]	30.0 MGD				Continuous	Recorder
BOD_5[5]		2,927 lbs/day	4,879 lbs/day	30 mg/L	45 mg/L	50 mg/L	3/Week	24-Hr. Comp.
BOD_5 - % Removal				85%[6]			1/Month	Calculated
TSS[5]		2,927 lbs/day	4,879 lbs/day	30 mg/L	45 mg/L	50 mg/L	3/Week	24-Hr. Comp.
TSS - % Removal				85%[6]			1/Month	Calculated
Oil and Grease[5]						--- mg/L	1/Month	3 Grabs[7]

[1]Limits shall be in effect from the effective date of the permit until the completion of WPCP upgrades required by the Consent Decree, and any amendments thereto, entered in civil action *Environment Rhode Island, et. al. v. City of Newport*, US Dist. Ct. Dist. of RI, CA 08-265S.

[2]Limits shall be in effect from the date of completion of the WPCP upgrades until completion of implementation of the System Master Plan required by the Consent Decree, and any amendments thereto, entered in civil action *Environment Rhode Island, et. al. v. City of Newport*, US Dist. Ct. Dist. of RI, CA 08-265S.

[3]Limits shall be in effect after the completion of implementation of the System Master Plan required by the Consent Decree, and any amendments thereto, entered in civil action *Environment Rhode Island, et. al. v. City of Newport*, US Dist. Ct. Dist. of RI, CA 08-265S.

[4]The WPCP shall be operated in accordance with standard operating procedures to treat a maximum average monthly flow of 16.0 MGD

[5]Testing for BOD_5, TSS, and Oil and Grease shall be performed and reported for influent and effluent. The BOD_5 and TSS influent and effluent testing shall be performed with appropriate allowances for hydraulic detention (flow-through) time.

[6]Percent removal shall be calculated using data obtained during dry weather conditions. Sample results from calendar days in which there is 0.1 inches or more of rain, or snow on the ground and the average daily temperature exceeds 32°F, shall not be included in the percent removal calculation.

[7]The three (3) grab samples shall be equally spaced over the course of a twenty-four (24) hour period with one sample collected per shift and a minimum of six (6) hours between samples. Each grab sample must be analyzed individually and the maximum values reported.

Sampling for TSS shall be performed on Tuesday, Thursday, and either Saturday or Sunday. Two (2) of the BOD_5 samples shall be taken at the same time as two (2) of the TSS samples. Sampling for Flow shall be performed Sunday – Saturday.

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 001A (Newport WPCP effluent at the end of the chlorine contact chamber after dechlorination).

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A. **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

2. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 001A (Newport WPCP effluent at the end of the chlorine contact chamber after dechlorination). 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
Enterococci[1]			--- cfu[3] / 100 ml		--- cfu[3] / 100 ml	3/Week	Grab
Enterococci[2]			35 cfu[3] / 100 ml		276 cfu[3] / 100 ml	3/Week	Grab
Fecal Coliform[1]			200 MPN[3] / 100 ml		400 MPN[3] / 100 ml	3/Week	Grab
Fecal Coliform[2]			--- MPN[3] / 100 ml		--- MPN[3] / 100 ml	3/Week	Grab
Total Residual Chlorine (TRC)			590 µg/L[4]		860 µg/L[4]	3/Day	Grab
pH			(6.0 SU)		(9.0 SU)	2/Day	Grab
Settleable Solids				--- mL/L	--- mL/L	1/Day	Grab

[1]Limits shall be in effect from the effective date of the permit until the completion of WPCP upgrades required by the Consent Decree, and any amendments thereto, entered in civil action *Environment Rhode Island, et. al. v. City of Newport*, US Dist. Ct. Dist. of RI, CA 08-265S.

[2]Limits shall be in effect after the date of completion of the WPCP upgrades required by the Consent Decree, and any amendments thereto, entered in civil action *Environment Rhode Island, et. al. v. City of Newport*, US Dist. Ct. Dist. of RI, CA 08-265S.

[3]Two (2) of the three (3) Enterococci samples are to be taken on Tuesday and Thursday. The Fecal Coliform samples shall be taken at the same time as the Enterococci samples. The Geometric Mean shall be used to obtain the "average monthly" values.

[4]The use of a continuous TRC recorder after chlorination and prior to dechlorination is required to provide a record that proper disinfection was achieved at all times. Compliance with these limitations shall be determined by taking a minimum of three (3) grab samples, equally spaced over a day with a minimum of three (3) hours between grabs, Monday – Friday (except holidays), and on Saturdays, Sundays, and Holidays by taking at least (2) grab samples each day with a minimum of two (2) hours between grabs. The maximum daily and average monthly values are to be computed from the averaged grab sample results for each day. The following methods may be used to analyze the grab samples: (1) DPD Spectrophotometric, Standard Methods No. 4500-Cl G-2000; (2) DPD Titrimetric, Standard Methods No. 4500-Cl F-2000; (3) Amperometric Titration, Standard Methods No. 4500-Cl D-2000 or ASTM No. D1253-08; (4) Iodometric Direct Titration, Standard Methods No. 4500-Cl B-2000; (5) Iodometric Back Titration (either end-point), Standard Methods No. 4500-Cl C-2000.

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

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

Sampling for Settleable solids, pH and TRC shall be performed Sunday – Saturday.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 001A (Newport WPCP effluent at the end of the chlorine contact chamber after dechlorination).

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A. **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

3. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 001A (Newport WPCP effluent at the end of the chlorine contact chamber after dechlorination). 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	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
TKN (May 1 – October 31)			--- mg/L		--- mg/L	1/Month	24-Hr. Comp.
Nitrate, Total (as N) (May 1 – October 31)			--- mg/L		--- mg/L	1/Month	24-Hr. Comp.
Nitrite, Total (as N) (May 1 – October 31)			--- mg/L		--- mg/L	1/Month	24-Hr. Comp.
Nitrogen, Total (TKN + Nitrate + Nitrite, as N) (May 1 – October 31)	--- lb/d		--- mg/L		--- mg/L	1/Month	Calculated
Cyanide[1]			--- ug/l		--- ug/l	1/Quarter	Composite[2]
Ammonia, Total[1]			--- mg/l		--- mg/l	1/Quarter	24-Hr. Comp.
Aluminum, Total[1]			--- ug/l		--- ug/l	1/Quarter	24-Hr. Comp.
Cadmium, Total[1]			--- ug/l		--- ug/l	1/Quarter	24-Hr. Comp.
Copper Total[1]			--- ug/l		--- ug/l	1/Quarter	24-Hr. Comp.
Chromium, Hexavalent[1]			--- ug/l		--- ug/l	1/Quarter	24-Hr. Comp.
Lead, Total[1]			--- ug/l		--- ug/l	1/Quarter	24-Hr. Comp.
Nickel, Total[1]			--- ug/l		--- ug/l	1/Quarter	24-Hr. Comp.
Zinc, Total[1]			--- ug/l		--- ug/l	1/Quarter	24-Hr. Comp.

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

[1] Monitoring data may be obtained in conjunction with the bioassay testing required in Part I.C of the permit.

[2] Composite shall be obtained by taking three grab samples per day, spaced over one (1) day with a minimum of three hours between grabs, and preserved immediately upon collection. All three (3) samples shall be composited, then analyzed for available Cyanide.

Samples taken in compliance with the monitoring requirements specified above shall be taken Monday through Friday at the following locations: Outfall 001A (Newport WPCP effluent at the end of the chlorine contact chamber after dechlorination).

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4. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 001A (Newport WPCP effluent at the end of the chlorine contact chamber after dechlorination). 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	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Mysidopsis bahia LC_{50}[1]					100% or Greater[2]	1/Quarter	24-Hr. Comp.

[1]LC_{50} is defined as the concentration of wastewater that causes mortality to 50% of the test organisms.

[2]The 100% or Greater limit is defined as a sample which is composed of 100% effluent.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: Outfall 001A (Newport WPCP effluent at the end of the chlorine contact chamber after dechlorination) in accordance with Part I.C. of the permit.

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A. **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

5. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 010A (Final discharge from the Washington Street CSO Facility). 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	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Flow (Volume)		--- MG				Continuous	Recorder
BOD_5[1]			--- mg/L		--- mg/L	Once/Overflow[3]	Composite[2]
TSS[1]			--- mg/L		--- mg/L	Once/Overflow[3]	Composite[2]
Oil and Grease			--- mg/L		--- mg/L	Once/Overflow[3]	Grab
BOD_5 - % Removal[4]			35%[5]			Once/Overflow[3]	Calculated
TSS - % Removal[4]			50%[5]			Once/Overflow[3]	Calculated

[1]Testing for Flow, BOD_5, and TSS shall be performed and reported for influent and effluent with appropriate allowances for hydraulic detention (flow-through) time.

[2]Composite sampling shall consist of hourly flow-proportioned grab samples taken for the duration of the overflow.

[3]For monitoring purposes, an overflow is defined as any occurrence of a discharge from a CSO to the receiving water with a minimum duration of 15 minutes. Overflows shall be considered to be separate if they are separated by six (6) or more hours. During months of no overflow DMRs shall be marked as "no discharge." Dry weather overflows, of any duration, are prohibited. Any discharge from a CSO to the receiving water, regardless of the duration, must be reported as a CSO to the DEM's Operations and Maintenance Program.

[4]Percent removal shall be computed using the formula in Part I.B.2 of the permit.

[5]All flows created by the greater than the one (1)-year six (6)-hour storm (depth = 1.95 inches), and all storms occurring less frequently as defined by Attachment A-7, are not subject to these limitations.

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: Outfall 010A (Final discharge from the Washington Street CSO Facility).

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A. **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

6. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 010A (Final discharge from the Washington Street CSO Facility). 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	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Enterococci[3,5]			--- cfu / 100 mL		--- cfu / 100 mL	Once/Overflow[2]	Composite[1]
Enterococci[4,5]			--- cfu[6] / 100 mL		276 cfu[6] / 100 mL	Once/Overflow[2]	Composite[1]
Fecal Coliform[5]			--- MPN / 100 mL		--- MPN / 100 mL	Once/Overflow[2]	Composite[1]
Total Residual Chlorine (TRC)[3,5]			--- ug/L		--- ug/L	Once/Overflow[2]	Composite[1]
Total Residual Chlorine (TRC)[4,5]			--- ug/L		20 ug/L[6]	Once/Overflow[2]	Composite[1]

[1]Composite sampling shall consist of hourly grabs taken during the first 4 hours of each overflow and subsequently once every 24 hours for the duration of the discharge. The Geometric Mean of the Enterococci and Fecal Coliform data shall be reported as the "average monthly" values.

[2]For monitoring purposes, an overflow is defined as any occurrence of a discharge from a CSO to the receiving water with a minimum duration of 15 minutes. Overflows shall be considered to be separate if they are separated by six (6) or more hours. During months of no overflow DMRs shall be marked as "no discharge." Dry weather overflows, of any duration, are prohibited. Any discharge from a CSO to the receiving water, regardless of the duration, must be reported as a CSO to the DEM's Operations and Maintenance Program.

[3]Limits shall be in effect from the effective date of the permit until the completion of the Washington Street CSO Facility Dechlorination improvements required by the Consent Decree, and any amendments thereto, entered in civil action *Environment Rhode Island, et. al. v. City of Newport*, US Dist. Ct. Dist. of RI, CA 08-265S.

[4]Limits shall be in effect after the date of completion of the Washington Street CSO Facility Dechlorination improvements required by the Consent Decree, and any amendments thereto, entered in civil action *Environment Rhode Island, et. al. v. City of Newport*, US Dist. Ct. Dist. of RI, CA 08-265S.

[5]The TRC, Fecal Coliform, and Enterococci samples shall be taken at the same time. The following methods may be used to analyze the grab samples: (1) Low Level Amperometric Titration, Standard Methods No. 4500-Cl E-2000; (2) DPD Spectrophotometric, Standard Methods No. 4500-Cl G-2000.

[6]All flows created by the greater than the one (1)-year six (6)-hour storm (depth = 1.95 inches), and all storms occurring less frequently as defined by Attachment A-7, are not subject to these limitations.

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: Outfall 010A (Final discharge from the Washington Street CSO Facility).

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A. **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

7. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 007A (Final discharge from the Wellington Avenue Microstraining Facility). 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	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Flow[1] (Volume)		--- MG				Continuous	Recorder
BOD_5[1]			--- mg/L		--- mg/L	Once/Overflow[3]	Composite[2]
TSS[1]			--- mg/L		--- mg/L	Once/Overflow[3]	Composite[2]
Oil and Grease			--- mg/L		--- mg/L	Once/Overflow[3]	Grab
BOD_5 - % Removal			35%[4]			Once/Overflow[3]	Calculated
TSS - % Removal			50%[4]			Once/Overflow[3]	Calculated

[1]Testing for BOD_5 and TSS shall be performed and reported for influent and effluent with appropriate allowances for hydraulic detention (flow-through) time.

[2]Composite sampling shall consist of hourly flow-proportioned grab samples taken for the duration of the overflow.

[3]For monitoring purposes, an overflow is defined as any occurrence of a discharge from a CSO to the receiving water with a minimum duration of 15 minutes. Overflows shall be considered to be separate if they are separated by six (6) or more hours. During months of no overflow DMRs shall be marked as "no discharge." Dry weather overflows, of any duration, are prohibited. Any discharge from a CSO to the receiving water, regardless of the duration, must be reported as a CSO to the DEM's Operations and Maintenance Program.

[4]All flows created by the greater than the one (1)-year six (6)-hour storm (depth = 1.95 inches), and all storms occurring less frequently as defined by Attachment A-7, are not subject to these limitations.

Sampling will be excused during adverse weather conditions. Adverse weather conditions will include conditions where it is the professional opinion of the operator on duty that his presence on the pier would constitute a significant threat to personal safety. This would include conditions such as heavy winds, diminished visibility due to driving rain or snow, icy or slippery conditions, and the presence of seawater due to wave excursions.

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: Outfall 007A (Final discharge from the Wellington Avenue Microstraining Facility).

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A. **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

8. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 007A (Final discharge from the Wellington Avenue Microstraining Facility).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	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Enterococci[3]			--- cfu / 100 ml		--- cfu / 100 ml	Once/Overflow[1]	Composite[2]
Fecal Coliform[3]			--- MPN / 100 mL		--- MPN / 100 mL	Once/Overflow[1]	Composite[2]
Total Residual Chlorine (TRC)[3]			--- ug/L		--- ug/L	Once/Overflow[1]	Composite[2]

[1]For monitoring purposes, an overflow is defined as any occurrence of a discharge from a CSO to the receiving water with a minimum duration of 15 minutes. Overflows shall be considered to be separate if they are separated by six (6) or more hours. During months of no overflow DMRs shall be marked as "no discharge." Dry weather overflows, of any duration, are prohibited. Any discharge from a CSO to the receiving water, regardless of the duration, must be reported as a CSO to the DEM's Operations and Maintenance Program.

[2]Composite sampling shall consist of hourly grabs taken during the first 4 hours of each overflow and subsequently once every 24 hours for the duration of the discharge. The Geometric Mean of the Enterococci and Fecal Coliform data shall be reported as the "average monthly" values.

[3]The TRC, Fecal Coliform, and Enterococci samples shall be taken at the same time. The following methods may be used to analyze the grab samples: (1) Low Level Amperometric Titration, Standard Methods (18th Edition) No. 4500-Cl E; (2) DPD Spectrophotometric, EPA No. 330.5 or Standard Methods (18th Edition) No. 4500-Cl G.

Sampling will be excused during adverse weather conditions. Adverse weather conditions will include conditions where it is the professional opinion of the operator on duty that his presence on the pier would constitute a significant threat to personal safety. This would include conditions such as heavy winds, diminished visibility due to driving rain or snow, icy or slippery conditions, and the presence of seawater due to wave excursions.

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: Outfall 007A (Final discharge from the Wellington Avenue Microstraining Facility).

9. a. The pH of the effluent shall not be less than 6.0 nor greater than 9.0 standard units at any time, unless these values are exceeded due to natural causes or as a result of the approved treatment processes.

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.

d. The permittee's treatment facility (Outfall 001A) shall maintain a minimum of 85 percent removal of both total suspended solids and 5-day biochemical oxygen demand during dry weather conditions. Dry weather is defined as any calendar day on which there is less than 0.1 inch of rain and no snow melt. The percent removal shall be based on monthly average values.

e. During the third calendar quarter bioassay sampling event, the final effluent sample collected during the same twenty-four (24) hour period as the bioassay sample, shall be analyzed for priority pollutants (as listed in Tables II and III of Appendix D of 40 CFR 122). The results of these analyses shall be submitted to the Department of Environmental Management by October 15th with the third quarter bioassay sample results. All sampling and analysis shall be done in accordance with EPA Regulations, including 40 CFR, Part 136; grab and composite samples shall be taken as appropriate.

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

B. COMBINED SEWER OVERFLOW REQUIREMENTS

1. During wet weather, the permittee is authorized to discharge from the Washington Street CSO Facility (Outfall 010A) and the Wellington Avenue CSO Facility (Outfall 007A) in accordance with Part I.A.5 through Part I.A.8 of the permit. These CSOs are subject to the following:

a. The discharges shall comply with the EPA CSO Policy, including those not specifically listed in this permit.

b. The discharges shall receive treatment at a level providing Best Practicable Control Technology Currently Available (BPT), Best Conventional Pollutant Control Technology (BCT) to control and abate conventional pollutants, and Best Available Technology Economically Achievable (BAT) to control and abate non-conventional and toxic pollutants. The DEM and EPA have made a Best Professional Judgement (BPJ) determination that BPT, BCT, and BAT for combined sewer overflow (CSO) control include the implementation of Nine Minimum Controls (NMC) specified below and detailed further in Part I.B.1.d. "Nine Minimum Controls, Minimum Implementation Levels" of this permit:

1. The permittee shall maintain and implement Standard Operating Procedures and proper operation and maintenance programs for the sewer system and all CSO outfalls to reduce the magnitude, frequency, and duration of CSOs. The program shall consider regular sewer inspections; sewer, catch basin, and regulator cleaning; equipment and sewer collection system repair or replacement, where necessary; disconnection of illegal connections; and the items in Parts I.E and I.B.1.d.5 of this permit.

2. The permittee shall maintain and implement Standard Operating Procedures that will maximize use of the collection system for wastewater storage that can be accommodated by the storage capacity of the collection system in order to reduce the magnitude, frequency, and duration of CSOs.

3. The permittee shall evaluate the CSO impacts from non-domestic users and take appropriate steps to minimize such impacts.

4. The permittee shall develop and implement Standard Operating Procedures to operate the WPCP at maximum treatable flow during all wet weather flow conditions to reduce the magnitude, frequency, and duration of CSOs. The permittee shall deliver all flows to the WPCP within the constraints of the flow limits listed in Part I.A.1.

5. Dry weather overflows from CSO outfalls are prohibited. When the permittee detects a dry weather overflow, the permittee shall begin corrective action immediately. All dry weather sanitary and/or industrial discharges from CSOs must be reported to DEM within twenty-four (24) hours in accordance with the reporting requirements for plant bypass (Part II of this permit). The permittee shall inspect the dry weather overflow each subsequent day until the overflow has been eliminated.

6. The permittee shall implement measures to control solid and floatable materials in CSOs.

7. The permittee shall implement a pollution prevention program focused on reducing the impact of CSOs on receiving waters.

8. The permittee shall implement a public notification process to inform citizens of when and where CSOs occur. The process must include: (a) a mechanism to alert persons of the occurrence of CSOs and; (b) a system to determine the nature and duration of conditions that are potentially harmful for users of receiving waters due to CSOs. The City of Newport shall maintain CSO identification signs at each CSO in the Newport WPCP Service Area. The signs must be located at or near the outfall structures, easily readable by the public, a minimum of 12 by 18 inches in size with white lettering against a green background, and shall contain the following information:

   The City of Newport
   Wet Weather Combined Sewage Discharge
   Outfall Number _____
   (discharge serial number)

   The signs must comply with the minimum requirements as approved by DEM.

9. The permittee shall monitor CSO outfalls to characterize CSO impacts and the efficacy of CSO controls. The data collected shall include:

   a. Characteristics of the combined sewer system including the population served by the combined portion of the system and locations of all CSO outfalls in the CSS;

   b. Total number of CSO events and the frequency and duration of CSOs;

   c. Locations and designated uses of receiving waterbodies;

d. Water quality data for receiving waterbodies;

e. Water quality impacts directly related to CSOs (e.g., beach closing, floatable wash-up episodes, fish kills).

c. The permittee shall maintain and implement its Nine Minimum Controls Plan, dated February 2008, to satisfy each minimum control shown in Parts I.B.1.b and I.B.1.d of the permit. If the Nine Minimum Controls Plan is reviewed by the DEM the permittee may be notified at any time that the Plan does not meet one or more of the minimum requirements of this permit. After such notification from the DEM, the permittee shall make changes to the Plan and shall submit a written certification that the requested changes have been made. Unless otherwise provided by the DEM, the permittee shall have thirty (30) days after such notification to make the necessary changes

d. Nine Minimum Controls, Minimum Implementation Levels:

1. The permittee must implement the nine minimum controls in accordance with the documentation provided to DEM or as subsequently modified to enhance the effectiveness of the controls. This implementation must include the following controls plus other controls the permittee can reasonably implement as set forth in the documentation.

2. The direct discharge of holding tank wastes and septage to a CSO is prohibited. Discharges of holding tank wastes and septage into the sewer system must be at locations that minimize the likelihood of concentrated wastes being discharged from CSOs.

3. Dry weather overflows (DWOs) are prohibited. All dry weather sanitary and/or industrial discharges from CSOs must be reported to DEM within twenty-four (24) hours in accordance with the reporting requirements for plant bypass (Part II of this permit).

4. The City of Newport shall maintain CSO identification signs at each CSO in the Newport WPCP Service Area. The signs must comply with the minimum requirement as approved by DEM.

5. Operation and maintenance of the sewer system:

a. All catch basins owned by the permittee shall be inspected, and cleaned if required, a minimum of once per year.

b. All collection system pump stations in the permittee's service area shall be inspected at least weekly and all pump station generators shall be inspected a minimum of twice per year.

c. All regulators shall be inspected at least twice a month.

d. All tidegates (if applicable) shall be inspected and maintained on a monthly basis.

e. All sumps in the Newport WPCP Service Area associated with CSO regulators shall be cleaned quarterly.

f. A report on tidegate and combined sewer overflow/regulator maintenance/repair and Nine Minimum Controls Plan implementation status during the previous six (6) months shall be submitted to the DEM, Office of Water Resources, by January 15th and July 15th of each year. The report shall include which structures were checked and when, the condition of each one, which were reported and when, which ones must yet be repaired, the reasons any repair was delayed, the anticipated repair schedule, and a summary of any activities related to the Nine Minimum Controls Plan.

2. Combined sewage entering the Washington Street CSO Facility, designated as Outfall 010A, will either: (1) receive primary treatment and disinfection and discharge through Outfall 010A or (2) be stored and pumped back to Newport's WPCP to receive secondary treatment. Compliance with the % removal limitations for Outfall 010A shall be evaluated using the following formula:

$$\text{Monthly \% Removal For CSO Facility} = \frac{\sum_{i=1}^{n}\left[\frac{(V_1C_1)-(V_2C_2)}{V_1C_1}\right]_i}{n}$$

Where: i = each storm event which activates CSO facility;

n = the number of storm events that CSO facility is activated in a month;

V_1 = volume of flow that enters the Washington Street CSO Facility (prior to screening);

C_1 = concentration of pollutants that enters the Washington Street CSO Facility (prior to screening);

V_2 = volume of flow that is treated and discharged from the Washington Street CSO Facility (Outfall 010A);

C_2 = concentration of pollutants that is treated and discharged from Washington Street CSO Facility (Outfall 010A);

R = monthly percent removal from Newport WPCP;

Note: The numbering used in Figure 2 corresponds to the subscripts above.

The above formula is not applicable for the Wellington Avenue Microstraining Facility since flows of combined sewage pumped to the Newport WPCP, untreated effluent, and primary treated CSO discharges cannot be quantified during wet weather events. A simplified percent removal calculation based upon influent and effluent data shall be used for the Wellington Avenue Microstraining Facility.

C. BIOMONITORING REQUIREMENTS AND INTERPRETATION OF RESULTS

1. General

Beginning on the effective date of the permit, the permittee shall perform four (4) acute toxicity tests per year on samples collected from discharge Outfall 001A (Newport WPCP effluent at the end of the chlorine contact chamber after dechlorination). The permittee shall conduct the tests during dry weather periods (no rain forty-eight (48) hours prior to or during sampling unless approved by DEM) according to the following test frequency and protocols. Acute data shall be reported as outlined in Part I.C.9. The State may

require additional screening, range finding, or definitive acute or chronic bioassays as deemed necessary based on the results of the initial bioassays required herein. Indications of toxicity could result in requiring a Toxicity Reduction Evaluation (TRE) to investigate the causes and to identify corrective actions necessary to eliminate or reduce toxicity to an acceptable level.

2. Test Frequency

On four (4) sampling events, (one (1) each calendar quarter) the permittee will conduct forty-eight (48) hour acute definitive toxicity tests on the species listed below, for a total of four (4) acute toxicity tests per year. This requirement entails performing one-species testing as follows:

Species	Test Type	Frequency
Mysids (Mysidopsis bahia)	Definitive 48-Hour Acute Static (LC_{50})	Quarterly

3. Testing Methods

Acute definitive toxicity tests shall be conducted in accordance with protocols listed in 40 CFR Part 136.

4. Sample Collection

For each sampling event a twenty-four (24) hour flow proportioned composite final effluent sample from the end of the chlorine contact chamber after dechlorination shall be collected during a dry weather period (no rain forty-eight (48) hours prior to or during sampling unless approved by DEM). The composite sample for Cyanide shall be obtained by taking three grab samples, spaced over one (1) day with a minimum of three hours between grabs. The three (3) grab samples shall be preserved immediately upon collection. All three (3) samples shall be composited, then analyzed for available Cyanide. Samples shall be kept cool (at 4°C) and testing shall begin within twenty-four (24) hours after the last sample of the composite is collected. In the laboratory, the twenty-four (24) hour flow proportioned composite final effluent sample shall be split into two (2) subsamples, after thorough mixing, for the following:

A: Chemical analysis
B: Acute toxicity testing

All samples held overnight shall be refrigerated at 4°C. Grab samples must be used for pH and temperature.

5. Salinity Adjustment

Prior to the initiation of testing, the effluent must be adjusted to make the salinity of the effluent equal to that of the marine dilution water. The test solution must be prepared by adding non-toxic dried ocean salts to a sufficient quantity of 100% effluent to raise the salinity to the desired level. After the addition of the dried salts, stir gently for thirty (30) to sixty (60) minutes, preferably with a magnetic stirrer, to ensure that the salts are in solution. It is important to check the final salinity with a refractometer or salinometer. Salinity adjustments following this procedure and in accordance with EPA protocol will ensure that the concentrations (% effluent) of each dilution are real and allow for an accurate evaluation with the acute permit limit and acute monitoring requirements.

6. Dilution Water

Dilution water used for marine acute toxicity analyses should be of sufficient quality to meet minimum acceptability of test results (See Part I.C.7.). Natural seawater shall be used as the dilution water. This water shall be collected from Narragansett Bay off the dock at the URI's Graduate School of Oceanography on South Ferry Road, Narragansett. It is noted that the University claims no responsibility for personal safety on this dock. The permittee shall observe rules posted at the dock. If this natural seawater diluent is found to be, or suspected to be toxic or unreliable, an alternate source of natural seawater, or deionized water mixed with hypersaline brine, or artificial sea salts of known quality with a salinity and pH similar to that of the receiving water may be substituted AFTER RECEIVING APPROVAL FROM DEM.

7. Effluent Toxicity Test Conditions for Mysids[1]
(Mysidopsis bahia)

a. Test type	48-Hour Static Acute Definitive
b. Salinity	25 ppt ± 10% for all dilutions
c. Temperature	25° ± 1°C
d. Light Quality	Ambient laboratory illumination
e. Photoperiod	8 –16 Hour Light/24-Hour
f. Test Chamber Size	250 ml
g. Test solution volume	200 ml
h. Age of Test Organisms	1 – 5 Days
i. Number of Mysids Per Test Chamber	10
j. Number of Replicate Test Chamber Per Concentration	2
k. Total Number Mysids Per Test Concentration	20
l. Feeding Regime	Light feeding (two (2) drops concentrated brine shrimp nauplii, approximately 100 nauplii per mysid twice daily)
m. Aeration	None, unless dissolved oxygen concentration falls below 40% of saturation at which time gentle single-bubble aeration should be started.
n. Dilution Water	Narragansett Bay water as discussed above.

o. Dilutions	Five (5) dilutions plus a control: 100%, 50%, 25%, 12.5%, 6.25% and 0% effluent.
p. Effect Measured and Test	Mortality – no movement of body test duration or appendages on gentle prodding, 48-hour LC_{50} and NOAEL.
q. Test Acceptability	90% or greater survival of test organisms in control solution.
r. Sampling Requirements	Samples are collected and used within 24 hours after the last sample of the composite is collected.
s. Sample Volume Required	Minimum four (4) liters

8. Chemical Analysis

The following chemical analysis shall be performed for every sampling event.

Parameter	Effluent	Saline Diluent	Detection Limit (mg/l)
pH	X	X	---
Specific Conductance	X	X	---
Total Solids and Suspended Solids	X	X	---
Total Ammonia	X		0.1
Total Organic Carbon	X		0.5
Available Cyanide	X		0.01
Total Phenols	X		0.05
Salinity	X	X	PPT(0/00)

During the first, second, and fourth calendar quarter bioassay sampling events the following chemical analyses shall be performed:

Total Metals	Effluent	Saline Diluent	Detection Limit (µg/l)
Total Aluminum	X	X	5.0
Total Cadmium	X	X	0.1
Total Copper	X	X	1.0
Hexavalent Chromium	X	X	20.0
Total Lead	X	X	1.0
Total Nickel	X	X	1.0
Total Zinc	X	X	5.0

The above metal analyses may be used to fulfill, in part or in whole, monitoring requirements in other parts of the permit for these specific pollutants.

During the third calendar quarter bioassay sampling event, the final effluent bioassay sample, shall be analyzed for priority pollutants (as listed in Tables II and III of Appendix D of 40 CFR 122). The bioassay priority pollutant scan shall be a full scan and may be coordinated with the other permit conditions to fulfill any priority pollutant scan requirements.

9. Toxicity Test Report Elements

A report of results will include the following:

- Description of sample collection procedures and site description.
- Names of individuals collecting and transporting samples, times, and dates of sample collection and analysis.
- General description of tests: age of test organisms, origin, dates, and results of standard toxicant tests (quality assurance); light and temperature regime; dilution water description; other information on test conditions if different than procedures recommended.
- The method used to adjust the salinity of the effluent must be reported.
- Raw data and bench sheets.
- Any other observations or test conditions affecting test outcome.

Toxicity Test data shall include the following:

- Survival for each concentration and replication at time twenty-four (24) and forty-eight (48) hours.
- LC_{50} and 95% confidence limits shall be calculated using one of the following methods in order of preference: Probit, Trimmed Spearman Karber, Moving Average Angle, or the graphical method. All printouts (along with the name of the program, the date, and the author(s) and graphical displays must be submitted. When data is analyzed by hand, worksheets should be submitted. The report shall also include the No Observed Acute Effect Level (NOAEL), which is defined as the highest concentration of the effluent (in % effluent) in which 90% or more of the test animals survive.
  - The Probit, Trimmed Spearman Karber, and Moving Average Angle methods of analyses can only be used when mortality of some of the test organisms are observed in at least two (2) of the (percent effluent) concentrations tested (i.e., partial mortality). If a test results in a 100% survival and 100% mortality in adjacent treatments ("all or nothing" effect), an LC_{50} may be estimated using the graphical method.

10. Special Condition

Due to the fact that the suggested dilution water for this facility to use in conducting the bioassays is from the end of the dock at the URI's Narragansett Bay Campus, a Letter of Agreement shall be signed and submitted to the Graduate School of Oceanography. Requests to use another source of dilution water will have to be approved by the DEM, Office of Water Resources.

11. Reporting of Bioassay Testing

Bioassay testing shall be reported 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

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

Office of Water Resources
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908-5767

D. INDUSTRIAL PRETREATMENT PROGRAM

1. Definitions

For the purpose of this permit, the following definitions apply.

a. 40 CFR 403 and sections thereof refer to the General Pretreatment regulations, 40 CFR Part 403 as revised.

b. Categorical Pretreatment Standards mean any regulation containing pollutant discharge limits promulgated by the EPA in accordance with section 307(b) and (c) of the Clean Water Act (33 USC 1251), as amended, which apply to a specific category of industrial users and which appears in 40 CFR Chapter 1, subchapter N.

c. Pretreatment Standards include all specific prohibitions and prohibitive discharge limits established pursuant to 40 CFR 403.5, including but not limited to, local limits, and the Categorical Pretreatment Standards.

d. Regulated Pollutants shall include those pollutants contained in applicable categorical standards and any other pollutants listed in the Pretreatment Standards which have reasonable potential to be present in an industrial user's effluent.

2. Implementation

The authority and procedures of the Industrial Pretreatment Program shall at all times be fully and effectively exercised and implemented, in compliance with the requirements of this permit and in accordance with the legal authorities, policies, procedures and financial provisions described in the permittee's approved Pretreatment Program and Sewer Use Ordinance, the Rhode Island Pretreatment Regulations, and the General Pretreatment Regulations at 40 CFR 403. The permittee shall maintain adequate resource levels to accomplish the objectives of the Pretreatment Program.

3. Local Limits

Pollutants introduced into POTWs by a non-domestic source (user) shall not: pass through the POTW, interfere with the operation or performance of the works, contaminate sludge as to adversely effect disposal options, or adversely effect worker safety and health.

a. The permittee has an approved Local Limits Report and an approved Local Limits Monitoring Plan that both shall continue to be implemented at all times.

b. At the time of renewal of this permit and in accordance with 40 CFR 122.44(j)(2), the permittee shall submit to the DEM with its permit renewal application a written technical evaluation of the need to revise local limits. The evaluation shall be based, at a minimum, on information obtained during the implementation of the permittee's local limits monitoring plan and current RIPDES permit discharge limits, sludge disposal criteria, secondary treatment inhibition, and worker health and safety criteria.

4. Enforcement Response Plan (ERP)

The permittee has an approved ERP, dated February 17, 1999, that meets the requirements of 40 CFR 403.8(f)(5). The permittee shall continue to implement its approved ERP at all times.

5. General

a. The permittee shall carry out inspection, surveillance, and monitoring procedures which will determine, independent of information supplied by the industrial user, whether the industrial user is in compliance with Pretreatment Standards. At a minimum, all significant industrial users shall be inspected and monitored for all regulated pollutants at the frequency established in the approved Industrial Pretreatment Program but in no case less than once per year (one (1) year being determined as the reporting year established in Part I.C.7 of this permit). In addition, these inspections, monitoring and surveillance activities must be conducted in accordance with EPA's Industrial User Inspection and Sampling Manual for POTW's, April 1994. All inspections, monitoring, and surveillance activities shall be performed, and have records maintained, with sufficient care to produce evidence admissible in enforcement proceedings or judicial actions. The permittee shall evaluate, at least every two years unless specific 40 CFR 403 streamlining provisions have been adopted to the contrary, whether each SIU requires a Slug Control Plan. If a Slug Control Plan is required, it shall include the contents specified by 40 CFR 403.8(f)(2)(vi).

b. The permittee shall reissue all necessary Industrial User (IU) control mechanisms within thirty (30) days of their expiration date. The permittee shall issue, within sixty (60) days after the determination that an IU is a Significant Industrial User (SIU), all SIU control mechanisms. All SIU control mechanisms must contain, at a minimum, those conditions stated in 40 CFR 403.8(f)(1)(iii)(B). All control mechanisms must be mailed via Certified Mail, Return Receipt Requested. A

complete bound copy of the control mechanism with the appropriate receipt must be kept as part of the Industrial User's permanent file. In addition, the permittee must develop a fact sheet describing the basis for the SIU's permit and retain this fact sheet as part of the SIU's permanent file.

c. The permittee must identify each instance of noncompliance with any pretreatment standard and/or requirement and take a formal documented action for each instance of noncompliance. Copies of all such documentation must be maintained in the Industrial User's permanent file.

d. The permittee shall prohibit Industrial Users from the dilution of a discharge as a substitute for adequate treatment in accordance with 40 CFR 403.6(d).

e. The permittee shall comply with the procedures of 40 CFR 403.18 for instituting any modifications of the permittee's approved Pretreatment Program. Significant changes in the operation of a POTW's Approved Pretreatment Program must be submitted and approved following the procedures outlined in 40 CFR 403.18(b) and 403.9(b). However, the endorsement of local officials responsible for supervising and/or funding the pretreatment program required by 403.9(b)(2) will not be required until DEM completes a preliminary review of the submission. The DEM will evaluate and review the permittee's initial proposal for a modification and provide written notification either granting preliminary approval of the proposed modifications or stating the deficiencies contained therein. DEM's written notification will also include a determination whether the submission constitutes a substantial or non-substantial program modification as defined by 40 CFR 403.18. Should DEM determine that a deficiency exists in the proposed modification, the permittee shall submit to DEM, within thirty (30) days of the receipt of said notice, a revised submission consistent with DEM's notice of deficiency.

Pretreatment program modifications which the permittee considers Non-substantial, shall be deemed to be approved within forty-five (45) days after submission of the request for modification, unless DEM determines that the modification is in fact a substantial modification or notifies the permittee of deficiencies. Upon receipt of notification that DEM has determined the modification is substantial, the permittee shall initiate the procedures and comply with the deadlines for substantial modifications, which are outlined below.

For substantial modifications, the permittee shall, within sixty (60) days (unless a longer time frame is granted) of the receipt of DEM's preliminary approval of the proposed modification, submit documentation (as required by 403.9(b)(2)) that any local public notification/participation procedures required by law have been completed, including any responses to public comments, and a statement that the local officials will endorse and/or approve the modification upon approval by DEM.

Within thirty (30) days of DEM's final approval of the proposed modification(s), the permittee shall implement the modification and submit proof that the local officials have endorsed and/or approved the modification(s) to the DEM. Upon final approval by the DEM and adoption by the permittee, this modification(s) shall become part of the approved pretreatment program and shall be incorporated into this permit in accordance with 40CFR 122.63(g).

f. All sampling and analysis required of the permittee, or by the permittee of any Industrial User, must be performed in accordance with the techniques described in 40 CFR 136.

g. For those Industrial Users with discharges that are not subject to Categorical Pretreatment Standards, the permittee shall require appropriate reporting in accordance with 40 CFR 403.12(h).

h. The permittee shall, in accordance with 40 CFR 403.12(f), require all Industrial Users to immediately notify the permittee of all discharges by the Industrial User that could cause problems to the POTW, including slug loadings, as defined by 40 CFR 403.5.

i. The permittee shall require all Industrial Users to notify the permittee of substantial changes in discharge as specified in 40 CFR 403.12(j) and the permittee shall also notify DEM of each such substantial change in discharge prior to acceptance.

j. The permittee shall require New Sources to install and have in operation all pollution control equipment required to meet applicable Pretreatment Standards before beginning to discharge. In addition, the permittee shall require New Sources to meet all applicable Pretreatment Standards within the shortest feasible time which shall not exceed ninety (90) days in accordance with 40 CFR 403.6(b).

k. The permittee shall require all Industrial Users who are required to sample their effluent and report the results of analysis to the POTW to comply with signatory requirements contained in 40 CFR 403.12(l) when submitting such reports.

l. The permittee shall determine, based on the criteria set forth in 40 CFR 403.8(f)(2)(viii), using the EPA method of "rolling quarters", the compliance status of each Industrial User. Any Industrial User determined to meet Significant Non-Compliance (SNC) criteria shall be included in an annual public notification as specified in 40 CFR 403.8(f)(2)(viii).

m. The permittee shall require Industrial Users to comply with the notification and certification requirements of 40 CFR 403.12(p)(1), (3) and (4) pertaining to the discharge of substances to the POTW, which if disposed of otherwise, would be a hazardous waste under 40 CFR Part 261.

n. The permittee shall continue to designate, as SIUs, those Industrial Users (IUs) which meet the definition contained in 40 CFR 403.3 and the permittee's sewer use ordinance.

o. The permittee shall notify each newly designated SIU of its classification as an SIU within thirty (30) days of identification and shall inform the SIU of the requirements of an SIU contained in 40 CFR 403.12.

6. Categorical Industrial Users (CIUs)

a. The permittee shall require Industrial Users to comply with applicable Categorical Pretreatment Standards in addition to all applicable Pretreatment Standards and Requirements. The permittee shall require of all Categorical Industrial Users (CIUs), all reports on compliance with applicable Categorical Pretreatment Standards and Categorical Pretreatment Standard deadlines as specified in and in accordance with Sections (b), (d), (e) and (g) of 40 CFR 403.12. In addition, the permittee shall require Categorical Industrial Users to comply with the report signatory requirements contained in 40 CFR 403.12(l) when submitting such reports.

b. If the permittee applies the Combined Wastestream Formula (CWF) to develop fixed alternative discharge limits of Categorical Pretreatment Standards, the application of the CWF and the enforcement of the resulting limits must comply with 40 CFR 403.6(e). The permittee must document all calculations within the

control mechanism fact sheet and the resulting limits within the CIU's control mechanism. The permittee must ensure that the most stringent limit is applied to the CIU's effluent at end-of-pipe based upon a comparison of the resulting CWF limits and the permittee's local limits.

c. If the permittee has or obtains the authority to apply and enforce equivalent mass-per-day and/or concentration limitations of production-based Categorical Pretreatment Standards, then the permittee shall calculate and enforce the limits in accordance with 40 CFR 403.6(c). The permittee must document all calculations within the control mechanism fact sheet and the resulting limits within the CIU's control mechanism.

7. Annual Report

The annual report for the permittee's program shall contain information pertaining to the reporting year which shall extend from January 1st through December 31st and shall be submitted to the DEM by February 15th. Each item below must be addressed separately and any items which are not applicable must be so indicated. If any item is deemed not applicable a brief explanation must be provided. The annual report shall include the following information pertaining to the reporting year:

a. A listing of Industrial Users which complies with requirements stated in 40 CFR 403.12(i)(1). The list shall identify all Categorical Industrial Users, Significant Industrial Users and any other categories of users established by the permittee;

b. In accordance with 40 CFR 122.42(b)(1) and 40 CFR 122.42(b)(2), a summary, including dates of any notifications received by the permittee of any substantial change in the volume or character of pollutants being introduced into the POTW by new or existing IUs. If applicable, an evaluation of the quality and quantity of influent introduced into the POTW and any anticipated impact due to the changed discharge on the quantity or quality of effluent to be discharged from the POTW shall be included;

c. A summary of the Compliance status of each Industrial User (IU), as of the end of last quarter covered by the annual report. The list shall identify all IUs in non-compliance, the pretreatment program requirement which the IU failed to meet, and the type, and date of the enforcement action initiated by the permittee in response to the violation. If applicable, the list shall also contain the date which IUs in non-compliance returned to compliance, a description of corrective actions ordered, and the penalties levied.

d. A list of industries which were determined, in accordance with Part I.D.5.(l) of this permit, to be in significant non-compliance required to be published in a local newspaper and a copy of an affidavit of publication, from the newspaper, verifying that the names of these violators has been published;

e. A summary of inspection and monitoring activity performed by the permittee, including;

- significant industrial users inspected by the POTW (include inspection dates for each industrial user);
- significant industrial user sampled by the POTW (include sampling dates and dates of analysis, for each industrial user);

f. A summary of permit issuance/reissuance activities including the name of the industrial user, expiration date of previous permit, issuance date of new permit, and a brief description of any changes to the permit;

g. A list including the report/notification type, due date, and receipt date for each report/notification required by 40 CFR 403.12.

h. A summary of public participation efforts including meetings and workshops held with the public and/or industry and notices/newsletters/bulletins published and/or distributed;

i. A program evaluation in terms of program effectiveness, local limits application and resources which addresses but is not limited to:

- A description of actions being taken to reduce the incidence of SNC by Industrial Users;
- effectiveness of enforcement response program;
- sufficiency of funding and staffing;
- sufficiency of the SUO, Rules and Regulations, and/or statutory authority;

j. An evaluation of recent/proposed program modifications, both substantial and non-substantial, in terms of the modification type, implementation and actual/ expected effect (note proposed modifications must be submitted under separate cover along with the information required by 40 CFR 403.18);

k. A detailed description of all interference and pass-through that occurred during the past year and, if applicable;

- A thorough description of all investigations into interference and pass-through during the past year;
- A description of the monitoring, sewer inspections and evaluations which were done during the past year to detect interference and pass-through, specifying pollutants analyzed and frequencies;

l. A summary of the average, maximum, and minimum concentrations and number of data points used for pollutant analytical results for influent, effluent, sludge and any toxicity or bioassay data from the wastewater treatment facility. The summary shall include a comparison of influent sampling results versus the maximum allowable headworks loadings contained in the approved local limits evaluation and effluent sampling results versus water quality standards. Such a comparison shall be based on the analytical results required in Parts I.A and I.C. of this permit and any additional sampling data available to the permittee; and

m. A completed Annual Pretreatment Report Summary Sheet (see Attachment A-1).

8. Inter-Jurisdictional Agreement

The permittee has an approved Inter-Jurisdictional Agreement with the Town of Middletown that shall be continued to be implemented at all times.

9. Sewer Use Ordinance

The permittee has an approved Sewer Use Ordinance which shall continue to be implemented at all times.

E. OPERATION AND MAINTENANCE OF THE SEWER SYSTEM

Operation and maintenance of the sewer system shall be in compliance with the General Requirements of Part II and the following terms and conditions:

1. Maintenance Staff

The permittee shall provide an adequate staff to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this permit.

2. Combined Sewer Overflows and Bypasses

The permittee shall operate and improve the sewer system to minimize the discharge of pollutants from combined sewer overflows and bypasses.

3. Infiltration/Inflow

The permittee shall minimize infiltration/inflow to the sewer system.

F. SLUDGE

The permittee shall conform and adhere to all conditions, practices and regulations as contained in the State of Rhode Island Rules and Regulations Pertaining to the Disposal, Utilization and Transportation of Sewage Sludge. The permittee shall comply with its DEM Order of Approval for the disposal of sludge.

G. 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	0.001
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
Aluminum, Total	5.0
TCDD	**
MTBE (Methyl Tert Butyl Ether)	1.0

* Polynuclear Aromatic Hydrocarbons
** No Rhode Island Department of Environmental Management (DEM) 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).

H. 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 month shall be summarized and reported on Discharge Monitoring Report (DMR) Forms, postmarked no later than the 15th day of the month following the completed reporting period. A copy of the analytical laboratory report, specifying analytical methods used, shall be included with each report submission. Signed copies of these, and all other reports required herein, shall be submitted to:

Annie McFarland
Electronic Computer Operator
Office of Water Resources
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 02908-5767

FACT SHEET

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

RIPDES PERMIT NO. **RI0100293**

NAME AND ADDRESS OF APPLICANT:

The City of Newport		**United Water Environmental Services, Inc.**
43 Broadway	**and**	**250 Connell Highway**
Newport, RI 02840		**Newport, RI 02840**

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

The Newport Pollution Control Plant (Newport WPCP)
250 Connell Highway
Newport, RI 02840,
Washington Street Combined Sewer Overflow (CSO) Facility, and
Wellington Avenue CSO Facility

RECEIVING WATER: **Narragansett Bay - Newport Harbor/Coddington Cove**
Water Body ID #: RI0007030E-01B (Newport WPCP)
and RI0007030E-01C (CSO Facilities)

CLASSIFICATION: **SB1 (Newport WPCP) & SB (CSO Facilities)**

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

The above-named applicant has applied to the Rhode Island Department of Environmental Management (DEM) for reissuance of a RIPDES Permit to discharge into the designated receiving water. The facility is engaged in the treatment of domestic and industrial sewage that is collected and transported to the Newport WPCP through a combined sewer system. The discharge is from the Newport WPCP (outfall 001A), Washington Street CSO Facility (outfall 010A), and Wellington Avenue CSO Facility (outfall 007A). Flow Diagrams of the facilities are shown in Figures 1 through 3.

II. Description of Discharge

A quantitative description of the discharge in terms of significant effluent parameters based on DMR data from June 2009 through March 2014 is shown on Attachment A-2.

III. Permit Limitations and Conditions

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

IV. Permit Basis and Explanation of Effluent Limitation Derivation

Introduction

The City of Newport (Newport) owns, and employs a consultant to operate, a wastewater treatment facility located at 250 Connell Highway, Newport, Rhode Island (the Newport WPCP). The discharge to the East Passage of Narragansett Bay consists of treated domestic, commercial, and industrial sewage contributed by the municipalities of Newport and Middletown and the Naval Station Newport. As of January 2014, the end of Newport's most recent Industrial Pretreatment Program reporting year, there were three Significant Industrial Users (SIUs) and twelve other (i.e., non-SIU) permitted industrial users contributing wastewater to the Newport WPCP. Treatment consists of the following: Coarse Screening, Primary Settling, Aeration, Secondary Settling, Chlorination, and Dechlorination.

Newport also owns, and the consultant operates, the Long Wharf Pumping Facility, Wellington Avenue CSO Facility, and the Washington Street CSO Facility. These Facilities are satellite facilities which serve the Newport WPCP and work in conjunction to maximize the conveyance of combined sewage and storm water flows to the Newport WPCP. The Long Wharf Pumping Facility was previously permitted to have a combined sewage overflow. However, since the last permit was issued, the overflow from the Long Wharf Pumping Facility was permanently eliminated and this facility is only operating as a pumping station. Therefore, this permit does not include the Long Wharf Pumping Facility as a permitted discharge. The other two (2) CSO facilities, Wellington Avenue and Washington Street, occasionally discharge combined sewage to Newport Harbor during wet weather events and are permitted under this permit.

Newport's most recent RIPDES permit, authorizing discharges from the above-mentioned facilities, was issued on September 28, 2007. This permit became effective on December 1, 2007 and expired November 30, 2012. Newport submitted an application for permit reissuance to the DEM on May 24, 2012. On August 7, 2012 the DEM issued an application complete letter to Newport. In accordance with Rule 13(a) of the Regulations for the Rhode Island Pollutant Discharge Elimination System, Newport's September 28, 2007 RIPDES permit remains in effect since the DEM has determined that a timely and complete permit application was submitted. Once this permit is reissued, it will supersede the September 28, 2007 permit.

In 2009 Environment Rhode Island and several citizen plaintiffs filed an action under the citizen suit provisions of the Clean Water Act (CWA) alleging that Newport and its contract operator violated Section 301(a) of the CWA by discharging pollutants into waters of the United States from the Newport WPCP and its wastewater collection system in violation of its RIPDES Permit and by discharging stormwater in violation of the Rhode Island General Permit for Storm Water Discharge from Small Municipal Separate Storm Sewer Systems. Based on this action, the Environmental Protection Agency (EPA), and the DEM filed a Motion to Intervene in the citizen suit to protect the interests of the United States and Rhode Island in the uniform and effective application of federal and state environmental laws. The Motion to Intervene was granted by the Court and the United States and Rhode Island subsequently filed a Complaint against Newport alleging that it violated Section 301(a) of the CWA and the Rhode Island Water Pollution Control Act, R.I.G.L. §§ 46-12, by discharging pollutants into waters of the United States from its WPCP and Collection System in violation of Newport's RIPDES permit and by discharging pollutants into waters of the United States without authorization under a RIPDES permit or any other provision of the CWA.

Based on these complaints, the parties entered a Judicial Consent Decree in the United States District Court, the District of Rhode Island, on October 18, 2011 requiring, among other things, that Newport undertake studies and develop and implement improvements to its WPCP and Collection System. The Consent Decree specifically required Newport to evaluate and recommend improvements to address CSOs from the Wellington Avenue CSO Facility and the Washington Street CSO Facility, including, as appropriate, upgrades to its WPCP and Collection System, public and private infiltration and inflow removal programs, and other measures, including in-line and off-line storage. The Consent Decree also specifically required Newport to prepare a Collection System Capacity Assessment and, if it was

determined during the development of the Capacity Assessment that the proposed collection system replacement and rehabilitation measures, infiltration and inflow removal programs, and WPCP flow optimization efforts alone would be insufficient to eliminate CSOs, to also develop a System Master Plan, which would evaluate other measures to eliminate CSOs. The System Master Plan functionally serves as a CSO Long-Term Control Plan (LTCP). Newport established a stakeholders group to provide input to the City during the development the Collection System Capacity Assessment and System Master Plan. On November 30, 2012, Newport submitted a Collection System Capacity Assessment and System Master Plan that proposed the following high level remedial measures:

- Disconnecting or removing private and public inflow sources to achieve a 50 percent reduction in rainfall-derived inflow;
- Upgrading the primary clarifiers and secondary treatment (aeration tank and final clarifier) at the WPCP to increase the wet weather capacity to a maximum daily flow of 30 MGD;
- Raising six existing weirs in the collection system: five weirs by 1.5 feet along the twin 54-inch diameter sewer on Long Wharf Mall and one weir by 1.2 feet in the overflow pipe on Wellington Avenue from the Thames Street Interceptor;
- Installing a new 3.5-MGD pump station on Van Zandt Avenue near the railroad to reroute flows currently going to the Long Wharf Pump Station directly to the Long Wharf force main and the WPCP;
- Upsizing two sanitary pumps at the Wellington Avenue CSO Facility to 2 MGD and upsizing the existing force main to convey the additional flows;
- Modifying the existing CSO treatment at the Washington Street CSO Facility by adding dechlorination, including installing chemical storage and dosing units; and
- Installing new or upgrading existing stormwater conveyance pipes (approximately 7,000 linear feet).

Newport's analysis indicates that, after implementation of the collection system improvements to improve conveyance to the WPCP and capital improvements to increase the wet weather capacity at the WPCP, CSO activations in a typical year are projected to significantly decrease by 2019. Newport also proposed a detailed schedule for final CSO mitigation in the System Master Plan that includes a June 30, 2033 final end date. Once all of the final CSO mitigation efforts are implemented, Newport's System Master Plan predicted that CSOs from the Wellington Avenue CSO Facility will be eliminated and CSOs from the Washington Street CSO Facility will nearly be eliminated for storms up to, and including, the 10-year, 6-hour design storm and for the typical precipitation year. EPA coordinated review of the System Master Plan with DEM and conditionally approved the Master Plan on November 20, 2013, subject to judicial approval of the end date for the completion of the System Master Plan. EPA is in the process of obtaining judicial approval and of modifying the Consent Decree to include the revised end date from the System Master Plan. Newport is currently in the process of moving forward with the recommendations of the System Master Plan to eliminate CSOs.

Receiving Water Description

The water body segment that receives the discharge from the Newport WPCP is described as Newport Harbor waters in the vicinity of Bishop Rock which are within 500 feet of the Newport marine sewer outfall. The waterbody identification # for these waters is RI0007030E-01B. This segment is located in Newport and is classified as a class SB1 water body according to the Rhode Island Water Quality Regulations. SB1 waters are designated for primary and secondary contact recreational activities and fish and wildlife habitat. They shall be suitable for aquacultural uses, navigation, and industrial cooling. These waters shall have good aesthetic value. Primary contact recreational activities may be impacted due to pathogens from approved wastewater discharges. However, all Class SB criteria must be met. Currently, this segment is not listed as impaired in the DEM's 2012 303(d) List of Impaired Waters.

The water body segment that receives the discharges from the CSOs is described as Newport Harbor waters east of a line from Fort Adams light to Rose Island light, to buoy (FLR) bell 14 and south of a line from buoy (FLR) bell 14 to Bishop Rock, excluding Coaster's Harbor. The waterbody identification # for these waters is RI0007030E-01C. This segment is located in Newport and is classified as a class SB water body according to the Rhode Island Water Quality Regulations. SB waters are designated for primary and secondary contact recreational activities; shellfish harvesting for controlled relay and depuration; and fish and wildlife habitat. They shall be suitable for aquacultural uses, navigation, and industrial cooling. These waters shall have good aesthetic value. Currently, this segment is not listed as impaired in the DEM's 2012 303(d) List of Impaired Waters.

Permit Development

Development of RIPDES permit limitations is a multi-step process consisting of the following steps: calculating allowable water quality-based discharge levels using instream criteria, background data and available dilution; determining if technology based limits apply; developing Best Professional Judgment (BPJ)-based limits; taking the most stringent of the water quality-based, technology-based, and BPJ-based limits as the new allowable discharge levels; comparing existing permit limits to the new allowable discharge levels and performing an antidegradation/antibacksliding analysis to determine the final permit limits; and evaluating the ability of the facility to meet the final permit limits.

Water quality criteria are comprised of numeric and narrative criteria. Numeric criteria are scientifically derived ambient concentrations developed by EPA or State 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.

WPCP Flow Limitations

Design Flows for CSO communities

When planning WPCP improvements, CSO communities calculate the anticipated wastewater flows 20 years into the future resulting from population growth within currently sewered areas, any additional flows from planned new sewer line construction, and any additional flows resulting from maximizing the amount of combined sewage that will be accepted for treatment at the WPCP in order to reduce the discharge from CSOs. When evaluating whether an increase in design flow proposed as part of a CSO long term control plan complies with antidegradation the sanitary flow component and the combined sewage component are analyzed separately. Any increase in the sanitary component will result in an increase in pollutant loads discharged from the existing WPCP and CSO system. However, an increase in WPCP flow that results from increasing the volume of combine sewage transported to the WPCP for full treatment which was previously discharge untreated, or partially treated, at a CSO outfall, will result in a net decrease in the total pollutant load discharged from the WPCP and the CSOs.

Increases in Wastewater Flow

When a CSO community revises a facility plan DEM compares the wastewater component of the new 20 year design flow to the wastewater component of the previously approved design flow. It is not appropriate to compare the actual existing flows to the revised design flows since it would not account for previously approved sewering projects that have yet to be built or are only partially built. For example if the previously approved and revised design flow are both 5.0 MGD, it would not be appropriate to subject the permittee to an antidegradation analysis if actual flows are 3.0 MGD (i.e. the existing permit limits were already established based on compliance with antidegradation based on 5.0 MGD). This is why the antidegradation analysis is not performed by comparing actual flows to design flows.

The Newport WPCP's approved design flows are based on a 2005 projected population of 73,250 (completed in 1982) while the 2013 estimate of the 2033 population is projected to be 51,039. The 2010 actual population was 48,625 and Newport has projected a 1.0 MGD increase in current flows to accommodate growth over the next 20 years. This revised estimate of the wastewater component of the future design flow included in Newport's Basis of Design Report (BDR) is far below the currently approved design flow based on the previous population projections. Therefore, because the design sanitary wastewater flows are not projected to increase, no changes to the existing concentration limits are necessary to comply with the antidegradation requirements of the RI Water Quality Regulations.

WPCP Limit listed in the RIPDES Permit

The average monthly flow limit included in the RIPDES permit must be met each and every month. The limit is labeled average monthly since it is the average of daily flow records for every day of the month. However since it must be met each month, it represents a maximum monthly average limit.

The limit listed in Newport's current RIPDES permit, issued on September 28, 2007, is 10.7 MGD. However when reviewing the engineering report that established the design flow of 10.7 MGD it is clear that this value is based on the highest average of daily samples collected for an entire year. Therefore it was inappropriate to use the 10.7 MGD as a value that must be met each and every month (i.e. based on the way the 10.7 was original established there will be many months that exceed the value each year). The BDR uses historic annual total flows that include wastewater and stormwater (i.e. combined sewage) to establish an annual average flow of 11.7 MGD. This value is larger than the previous design flow due to the proposed facility modifications that will allow increased pumping of combined sewage to the WPCP for treatment (as explained above the wastewater component of the design is decreasing from the flow previously approved).

To be consistent with the method used to establish the previous design flows, the permit establishes a maximum annual average flow limit of 11.7 MGD; reporting of the monthly average flow with a requirement that standard operating procedures be established to ensure the monthly average flow discharged is below the maximum monthly average design flow of 16.0 MGD; and the inclusion of a daily maximum flow limit of 30 MGD which is the maximum flow that can be hydraulically processed by the WPCP after the recommendations of the System Master Plan have been implemented. Since the annual average flow limit of 11.7 MGD and the maximum daily flow limit of 30 MGD will not be achievable until after the recommendations of the System Master Plan have been implemented, the DEM's has established the following interim flow limits:

	Flow Limits (MGD)		
Period	Annual Average	Monthly Average	Daily Maximum
Prior to WPCP Upgrade	--- MGD	16.0 MGD	19.7 MGD
After WPCP Upgrade and Prior to Completion of Inflow Removal Work	13.1 MGD	16.0 MGD	30.0 MGD
Final Limits	11.7 MGD	--- MGD[1]	30.0 MGD

[1] The monthly average flow limit shall be monitor only with a footnote indicating that the WPCP shall be operated in a manner to treat a monthly average flow of 16.0 MGD

Increases in total WPCP flow and changes in pollutant loadings due to maximizing treatment of combined sewage at the WPCP.

The CSO LTCP and WPCP BDR include sewer system and WPCP modifications to transport combined sewage, that is currently being discharged through CSOs with minimal or no treatment, to the WPCP for full treatment and disinfection prior to discharge. As a result, CSO discharges at the Wellington Avenue and Washington Street CSO locations will be greatly decreased and these flows will be treated and discharged from the WPCP. Implementation of the CSO System Master Plan will result in a net decrease in the total quantity of TSS, BOD_5 and fecal coliform discharged from the WPCP, Wellington Avenue CSO Facility, and the Washington Street CSO Facility.

As noted in table 3-10 of the System Master Plan, during a typical year the Wellington Avenue CSO Facility and Washington Street CSO Facility discharge 12 times and result in a discharge of 11,038 pounds of TSS/year and 12,145 lbs of BOD_5/ year. As indicated above, after implementation of the System Master Plan, these discharges will be eliminated during a typical year and the corresponding increase in TSS and BOD_5 discharged from the WWTF will be 3,000 lbs/year (using 12 overflow events/year and the associated 250 lbs/day increase in average pollutant loads from these events). Note: During dry weather, when the WPCP's flows are below 11.7 MGD, the WPCP's concentration based limits and percent removal limits will prevent the WPCP from discharging the 250 lbs/d increased BOD_5 and TSS load. Therefore increasing the WPCP's BOD_5 and TSS limits by 250 lbs/day will result in a net decrease in the pollutant loading to receiving waters by allowing the discharges from the CSO facilities to be eliminated during a typical year.

WPCP Conventional Pollutant Permit Limitations

BOD_5, TSS, and pH

The "Average Monthly" and "Average Weekly" biochemical oxygen demand (BOD_5) and total suspended solids (TSS) concentration-based limits, and the pH limitations are based upon the secondary treatment requirements in Section 301(b)(1)(B) of the Clean Water Act (CWA), as defined in 40 CFR 133.102 (a)-(c). "Maximum Daily" BOD_5 and TSS concentration-based limits are based on Rhode Island requirements for Publicly Owned Treatment Works (POTWs) under Rule 17.04(b) of the RIPDES Regulations and as provided in 40 CFR 123.25. The "Average Monthly" and "Maximum Daily" BOD_5 and TSS load-based limits were determined by multiplying the "Average Monthly" and "Maximum Daily" BOD_5 and TSS concentration-based limits, in mg/l, by the WPCP's design flow, in MGD, and the appropriate conversion factor, 8.34.

Oil and Grease

Oil and Grease monitoring requirements were assigned in the previous permit and have been maintained in this permit in order to serve as a process control parameter. Monitoring data will serve as an indicator of excessive levels of Oil and Grease in the collection system that is typically attributed to restaurants and other sources of Oil and Grease loading which discharge to the sewer collection system. Newport and DEM will be able to use this data to track and potentially initiate corrective action if necessary to prevent backups and blockages within the sewer collection system.

Settleable Solids

DEM and EPA agree that the TSS is an appropriate measure of the solids content being discharged to the receiving waters and that Settleable solids are a "process-control parameter" that can aid in assessment of the operation of the plant but need not be an effluent limit. Therefore, the permit requirements for Settleable Solids are monitor only.

BOD_5 and TSS % Removal

The "Percent Removal" requirements for BOD_5 and TSS are in accordance with 40 CFR 133.102(a) and (b) respectively. Since Newport's collection system is a combined system and may experience dilute influent conditions during wet weather, in accordance with 40 CFR 133.103(a) the percent removal shall be calculated only using data obtained during dry weather conditions. Dry weather is defined as any calendar day on which there is less than 0.1 inch of rain and no snow melt. Sample results from calendar days in which there is 0.1 inches or more of rain or snow on the ground and the average temperature exceeds 32°F, shall not be included in the percent removal calculation.

Bacteria

Table 2.8.D(3) of the Rhode Island Water Quality Regulations includes Enterococci criteria for primary contact/swimming of a geometric mean of 35 colonies/100 ml and a single sample maximum of 104 colonies/100 ml. However, the "single sample maximum" value is only used by the Rhode Island Department of Health to evaluate swimming advisories at public beaches and is not applied to the receiving water in the area of the Newport WPCP's outfall. EPA's November 12, 2008 memorandum regarding "Initial Zones of Dilution for Bacteria in Rivers and Streams Designated for Primary Contact Recreation" specifies that it is not appropriate to use dilution for bacteria criteria in receiving waters that are designated for primary contact recreation. Therefore, because the receiving water is designated for primary contact recreation, the DEM has assigned a monthly average Enterococci limit of 35 colonies/100 ml. This limit is consistent with the water quality criteria from Table 2.8.D(3) of the Rhode Island Water Quality Regulations. The daily maximum enterococci limit has been set at the 90% upper confidence level value for "lightly used full body contact recreation" of 276 colonies/100 ml. The DEM has also assigned Fecal Coliform monitoring to ensure that the discharge from the WWTF will not have an impact on any areas designated for shellfish harvesting outside of the immediate vicinity of the outfall.

Because the Newport WPCP's existing chlorine contact basin only has a 15 minute contact time at daily maximum flows, which is below the TR-16 design standard of 30 minutes, the DEM is not assigning these limits until after the completion of WPCP upgrades required by the Consent Decree entered in civil action *Environment Rhode Island, et. al. v. City of Newport*, US Dist. Ct. Dist. of RI, CA 08-265S. Once the Newport WPCP upgrade has been completed, the chlorine contact basin's contact time will be increased to meet the TR-16 design standard. Prior to the upgrade being completed, the DEM has assigned the same monthly average and daily maximum Fecal Coliform limits that are in Newport's existing permit (200 MPN/100 ml – monthly average and 400 MPN/100 ml- daily maximum) and has also assigned Enterococci monitoring.

WPCP Toxic Pollutant Limits

Water Quality-Based Limit Calculations
The allowable effluent limitations were established on the basis of acute and chronic aquatic life criteria and human health criteria using the following: available instream dilution; an allocation factor; and background concentrations when available and/or appropriate. The aquatic life and human health criteria are specified in the Rhode Island Water Quality Regulations. Aquatic life criteria have been established to ensure the protection and propagation of aquatic life while human health criteria represent the pollutant levels that would not result in a significant risk to public health from ingestion of aquatic organisms. The more stringent of the two criteria was then used in establishing allowable effluent limitations. Details concerning the calculation of potential permit limitations, selection of factors, which influence their calculation, and the selection of final permit limitations are included below or in the attached documents. The City's first permit to contain water quality based limits was issued in November 1997.

Mixing Zones and Dilution Factors

On November 10, 1997, the Office of Water Resources reissued a RIPDES permit for the Newport WPCP. This permit contained water quality based permit limits using an acute and chronic dilution factor of 66:1 and 78:1, determined from the EPA computer model CORMIX2. Attached Figure #4 depicts the acute and chronic mixing zones as superimposed on an aerial photograph. CORMIX2 is designed to simulate the dilution characteristics of submerged multiport diffuser discharges. The Newport WPCP effluent is discharged through a 42-inch pipe, which is approximately 600 feet offshore and fitted with a diffuser. The pipe diffuser consists of four (4) 24-inch ports, each of which is 30 feet in length. Figure #5 is a schematic of the Newport WPCP's outfall diffuser. Based on the results of the CORMIX2 Prediction File (March 1995) a chronic dilution factor of 78 and an acute dilution factor of 66 were established, with respective mixing zone radii of 100 meters (approximately 328 feet) and 27 meters (approximately 88.56 feet). The DEM has determined that these dilution factors are still appropriate.

Using the above-mentioned dilution factors the allowable discharge limits were calculated as follows:

a) Background concentration unknown or available data is impacted by sources that have not yet achieved water quality based limits.

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

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

b) Using available background concentration data[1].

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

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

Reference Attachment A-3 for calculations of allowable limits based on Aquatic Life and Human Health Criteria.

The formulas and data 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 at the allowable acute limit.

B) Total Residual Chlorine (TRC). The limits for TRC were established in accordance with the DEM Effluent Disinfection Policy. The "Monthly Average" and "Daily Maximum" were based on a 100% allocation, a zero background concentration, and the appropriate dilution factors. The 100% allocation factor for TRC was used due to the non-conservative nature of chlorine and the improbability of the receiving water having a detectable background TRC concentration.

The potential ammonia limitations were derived from acute and chronic water quality criteria for saltwater from the Rhode Island Water Quality Regulations, which are based upon salinity, pH, and temperature. A salinity equal to 30 ppt., pH equal to 8.0 standard units, and average temperatures equal to 20°C and 5°C during Summer and Winter seasons, respectively, were used to calculate the allowable water quality-based discharge levels for ammonia. Salinity and temperature values were based upon data contained in the Narragansett Bay Project Reports, #NBP-89-22 and #NBP-89-24, titled "Water Quality Survey of Narragansett Bay-A Summary of the SINBADD 1985-1986" and "SPRAY Cruise-Dissolved Oxygen and Chlorophyll", respectively. The pH value was determined from data contained in a report titled "Monitoring of the Providence and Seekonk Rivers for Trace Metals and Associated Parameters-SPRAY Cruises I, II, III" [Deoring et al., 1988], and from a University of Rhode Island Graduate School of Oceanography research paper titled "Co-occurrence of Dinoflagellate Blooms and High pH in Marine Enclosures", [Hinga, 1992].

Reasonable Potential

In accordance with 40 CFR 122.4(d)(1)(i), it is only necessary to establish permit limits for those pollutants in the discharge which have the reasonable potential to cause or contribute to the exceedance of instream criteria. In order to evaluate the need for permit limits, the most stringent calculated acute and chronic limits are compared to the Discharge Monitoring Report (DMR) and the State User Fee

[1]Source of background data is *Water Quality Survey of Narragansett Bay - A Summary of Results from the SINBADD 1985-1986*; Pilson, Michael E.Q. and Hunt, Carlton, D.; March 1989; Report #NBP-89-22.

Program data. A summary of the DMR data for the period June 2009 through March 2014 and a complete listing of any pollutants detected as part of the State User Fee Program data for the period June 2009 through March 2014 are provided in Attachments A-4 and A-5, respectively. Attachment A-6 is a summary comparison of the allowable water quality-based limits vs. the DMR and State User Fee Program data.

Based on the analysis presented above, permit limits are required for Total Residual Chlorine.

Although these pollutants did not have "reasonable potential", quarterly monitoring for Total Cyanide, Total Ammonia, Total Aluminum, Total Cadmium, Total Copper, Total Chromium, Total Lead, Total Nickel, and Total Zinc have been included in the permit as part of the standard list of pollutants monitored as part of the quarterly toxicity testing.

WPCP Nonconventional Pollutant Limits

BPJ-Based Permit Limits for Nutrients

The requirement of testing for nutrients (e.g., Total Kjeldahl Nitrogen (TKN), nitrate, and nitrite) is necessary to make a determination on nutrient loadings in the receiving water. This information will aid the Department in future decision making on the necessity of nutrient removals from the treatment plant wastewater.

Bioassay Testing

DEM's toxicity permitting policy is based on past toxicity data and the level of available dilution. Past bioassay monitoring data for Newport has shown no occurrences of toxicity over the past five-(5) years. DEM's toxicity permitting policy requires that acute toxicity be evaluated for effluents with dilutions between 20:1 and 100:1. Therefore, the permit requires that an acute toxicity test be conducted once per quarter on Mysids. The permit contains an acute $LC_{50} \geq 100\%$ effluent limit that shall assure control of the toxicity in the effluent. If recurrent toxicity is demonstrated, then toxicity identification and reduction will be required.

CSO Limits

As indicated above, Newport's sewer collection system consists of combined sewers that convey both sanitary sewage and stormwater runoff during rain events. During wet weather, the combined flow may exceed the capacity of the WPCP and the interceptor sewers, and a portion of the combined flow is discharged to the receiving waters through the CSO facilities. The City currently has two (2) CSO facilities in its system: the Wellington Avenue CSO Facility (007A) and the Washington Street CSO Facility (outfall 010A).

Since the issuance of the last permit, Newport has made improvements to its collection system that has resulted in the overflow from the Long Wharf facility being permanently sealed. Therefore, since the outfall pipe has been permanently sealed this outfall is no longer permitted. The Wellington Avenue CSO Facility is a former microstraining facility that is currently being used for disinfection. Under the first phase of the System Master Plan, this facility will be upgraded to optimize the effectiveness of disinfection. Once the System Master Plan has been fully implemented, performance evaluations of these improvements demonstrate the elimination of discharges from this outfall may be achieved for up to the 10-year, 6-hour design storm. The Washington Street CSO Facility is an ageing screening and disinfection facility. Under the first phase of the System Master Plan, this facility will be upgraded to optimize the effectiveness of disinfection and to provide dechlorination. Once the System Master Plan has been fully implemented, discharges from this outfall will be significantly reduced, but not eliminated (i.e., there will still be a small volume discharged during a 10-year design storm).

Performance evaluations included in the final System Master Plan, as conditionally approved by EPA, demonstrate that when the SMP is fully implemented, elimination of CSOs for wet weather events up to the 10-year, 6-hour design storm, with the exception of CSO 010A, the discharge location of the Washington Street CSO Treatment Facility, may be achieved.

CSOs are point sources subject to RIPDES permit requirements for both water-quality based and technology-based requirements but are not subject to the secondary treatment regulations applicable to publicly owned treatment works in accordance with 40 CFR §133.103(a). Section 301(b)(1)(C) of the Clean Water Act mandated compliance with water quality standards by July 1, 1977. Technology-based permit limits must be established for best conventional pollutant control technology (BCT) and best available technology economically achievable (BAT) based on best professional judgment (BPJ) in accordance with Section 301(b) and Section 402(a) of the Clean Water Act.

The framework for compliance with Clean Water Act requirements for CSOs is set forth in EPA's National CSO Control Policy, 59 Fed. Reg. 18688 (1994). It sets the following objectives:

1) To ensure that if the CSO discharges occur, they are only as a result of wet weather;

2) To bring all wet weather CSO discharge points into compliance with the technology based requirements of the CWA and applicable federal and state water quality standards; and

3) To minimize water quality, aquatic biota, and human health impacts from wet weather flows.

The CSO Control Policy also established as a matter of national policy the minimum BCT/BAT controls that represent the BPJ of the agency on a consistent, national basis. These are the "nine minimum controls" defined in the CSO Control Policy and set forth in the Part I.B of the Permit. The nine minimum controls include: (1) proper operation and maintenance of the sewer system and the CSOs, (2) maximum use of the collection system for storage, (3) review pretreatment programs to assure that CSO impacts are minimized, (4) maximization of flow to the POTW for treatment, (5) prohibition of dry weather overflows, (6) control of solid and floatable materials in CSOs, (7) pollution prevention programs, (8) public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts, and (9) monitoring to effectively characterize CSO impacts and the efficacy of CSO controls. In accordance with the National CSO Control Policy and consistent with the conditions in the previous permit, the draft permit contains conditions that ensure that Newport complies with the nine minimum controls.

The previous permit required that each CSO discharge receives equivalent to primary treatment. Equivalent to primary treatment was defined as the use of technologies such that the treated effluent results in removal rates of 50% of TSS and 35% of BOD_5 loadings, or 100% removal of settleable solids, whichever is demonstrated to have the greatest water quality benefit. As indicated above, the DEM and EPA agree that TSS is an appropriate measure of the solids content being discharged to the receiving waters. Therefore, the DEM has determined that the removal of 50% of TSS and 35% of BOD_5 loadings will have the greatest water quality benefit and, as a result, these limits continue to be assigned to Newport's CSOs and % removal limits for settleable solids are no longer required for the CSOs. The permit limitations for BOD_5 %-removal and TSS %-removal for Newport's CSO facilities are consistent with the limits from Newport's previous RIPDES permit.

All flows generated by the one (1)-year six (6)-hour storm, and all storms occurring more frequently are subject to the CSO percent removal limitations. Combined sewage entering the Washington Street CSO Facility, designated as Outfall 010A, will either: (1) receive primary treatment and disinfection and discharge through Outfall 010A or (2) be stored and pumped back to Newport's WPCP to receive secondary treatment. All flows captured by the Washington Street CSO facility and pumped back to the Newport WPCP are subject to the permit limits for outfall 001A, including BOD % Removal and TSS % Removal. Since these flows will be pumped back to the WPCP and are not discharged from a CSO facility, they do not need to be considered when calculating % removal for the Washington Street CSO

facility (i.e., CSO flows pumped back to the WPCP shall be considered "eliminated" from the CSO facility). Therefore, compliance with the % removal limitations for Outfall 010A shall be evaluated using the following formula:

$$\text{Monthly \% Removal For CSO Facility} = \frac{\sum_{i=1}^{n}\left[\frac{(V_1C_1)-(V_2C_2)}{V_1C_1}\right]_i}{n}$$

Where: i = each storm event which activates CSO facility;

n = the number of storm events that CSO facility is activated in a month;

V_1 = volume of flow that enters the Washington Street CSO Facility (prior to screening);

C_1 = concentration of pollutants that enters the Washington Street CSO Facility (prior to screening);

V_2 = volume of flow that is treated and discharged from the Washington Street CSO Facility (Outfall 010A);

C_2 = concentration of pollutants that is treated and discharged from the Washington Street CSO Facility (Outfall 010A);

R = monthly percent removal from the Newport WPCP.

Note: The numbering used in Figure 2 corresponds to the subscripts above.

The Wellington Avenue CSO Facility shall use a comparable, simplified percent removal equation to calculate percent removal based upon influent and effluent data for the Wellington Avenue CSO Facility.

In addition, because it will remain as an active discharge after full implementation the System Master Plan, the Washington Street CSO Treatment Facility is subject to additional technology-based effluent limitations. The Washington Street CSO Treatment Facility represents an enhancement of the Nine Minimum Controls, allowing greater use of the system for storage (control #2) and return of the flow to the WPCP for treatment (control #3), removal of floatables and some solid materials (control #6), and reduction of bacteria through disinfection (and the related control of chlorine discharges) (control # 7). DEM has determined additional BCT/BAT effluent limitations using BPJ that are consistent with the requirements of the Consent Decree entered in civil action *Environment Rhode Island, et. al. v. City of Newport*, US Dist. Ct. Dist. of RI, CA 08-265S. These effluent limitations are:

Enterococci: 276 cfu/100 ml maximum daily

Total Residual Chlorine: 20 ug/l maximum daily

These limits shall not go into effect until after the date of completion of the Washington Street CSO Facility improvements required by the Consent Decree, and any amendments thereto, entered in civil action *Environment Rhode Island, et. al. v. City of Newport*, US Dist. Ct. Dist. of RI, CA 08-265S. In making this determination DEM considered the factors identified in 40 C.F.R § 125.3(d), including the cost and benefits of the facility (analyzed in connection with the development of the Newport's CSO control plan), the age of the facility, the fact that the facility can be engineered to meet the design parameters, and the demonstrated ability of treatment technologies to meet the limitations. The permit also requires that the permittee conduct concurrent monitoring for Fecal Coliform to evaluate potential impacts to shellfishing.

For the purposes of CSO monitoring requirements, an overflow shall be defined as any event which causes effluent to enter the receiving water via Outfalls 007A or 010A, for a time greater than or equal to fifteen (15) minutes. Any discharge from a CSO to the receiving water, regardless of the duration, must be reported as a CSO to the DEM's Operations and Maintenance Program. Overflow occurrences shall be considered to be separate overflows if six (6) or more hours separate two (2) overflow events. This is consistent with the design storm used by Newport to design the CSO facilities. A rainfall depth-duration-frequency relationship for the City of Newport was developed by Metcalf and Eddy in 1986 and is presented in Attachment A-7. In order to determine if a particular storm event is equal to or more frequently occurring than the one (1)-year six (6)-hour design storm, and therefore subject to the CSO permit limits, the depth and duration of a particular event are entered into the chart. If the corresponding location in the chart falls on or below the one (1) year design storm curve, then the rain event is equal to or more frequently occurring than the design storm, and the CSO numeric permit limitations apply.

The monitor only requirements for fecal coliform, enterococci (outfall 007), total residual chlorine (outfall 007), and oil and grease, as well as the requirement to submit a semiannual CSO Summary Report, are included to provide a database to assist in the evaluation of wet weather impacts upon Newport Harbor and Narragansett Bay water quality resulting from CSOs. Dry weather overflows from the CSO facilities are not permitted. A regular maintenance/inspection program, a plan to maximize flow to the Newport Water Pollution Control Plant and storage within the collection system are also required.

Other Limits and Conditions

The effluent monitoring requirements have been specified in accordance with RIPDES regulations as well as 40 CFR 122.41(j)(1), 122.44(i), and 122.48 to yield data representative of the discharge.

Permits must contain sludge conditions requiring compliance with limits, State laws, and applicable regulations as per Section 405(d) of the CWA and 40 CFR 503. The DEM Sludge Order of Approval sets forth the conditions to ensure this compliance. The permit contains requirements for the permittee to comply with the State's Sludge Regulations and the permittee's DEM Order of Approval for sludge disposal in accordance with the requirements of Section 405(d) of the CWA.

The permit contains a reporting requirement for a local program to regulate industrial discharges to the sewer system (referred to as pretreatment program). This program is being required under authority of Section 402(b)(8) of the CWA and 40 CFR 122.44(j)(2) and 403.8 because Newport receives significant discharges of industrial wastewater.

The remaining general and specific conditions of the permit are based on the RIPDES regulations as well as 40 CFR Parts 122 through 125 and consist primarily of management requirements common to all permits.

Antidegradation Analysis of Permit limit changes

Antibacksliding

Antibacksliding restricts the level of relaxation of water quality based limits from the previous permit. Section 303(d)(4) of the Clean Water Act addresses antibacksliding as the following:

Section 303(d)(4)

A) Standards not attained - For receiving waters that have not attained the applicable water quality standards, limits based on a TMDL or WLA can only be revised if the water quality standards will be met. This may be done by (i) determining that the cumulative effect of all such revised limits would assure the attainment of such water quality standards; or (ii) removing the designated use which is not being attained in accordance with regulations under Section 303.

B) Standards attained - For receiving waters achieving or exceeding applicable water quality standards, limits can be relaxed if the revision is consistent with the State's Antidegradation Policy.

Therefore, in order to determine whether backsliding is permissible, the first question that must be answered is whether or not the receiving water is attaining the water quality standard. The office has determined the most appropriate evaluation of existing water quality is by calculating the pollutant levels, which would result after consideration of all currently valid RIPDES permit limits or historic discharge data (whichever is greater), background data (when available), and any new information (i.e.: dilution factors).

Antidegradation

The DEM's "Policy on the Implementation of the Antidegradation Provisions of the Rhode Island Water Quality Regulations" (the Policy) establishes four tiers of water quality protection:

Tier 1 - In all surface waters, existing uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

Tier 2 - In waters where the existing water quality exceeds the levels necessary to support the propagation of fish and wildlife and recreation in and on the water, that quality shall be maintained and protected except for insignificant changes (i.e.: short-term minor changes) in water quality as determined by the Director and in accordance with the Antidegradation Policy. In addition, the Director may allow significant degradation, which is determined to be necessary to achieve important economic or social benefits to the State (important benefits demonstration) in accordance with the Antidegradation Policy.

Tier 2½ - Where high quality waters constitute Special Resource Protection Waters SRPWs[2], there shall be no measurable degradation of the existing water quality necessary to protect the characteristics which cause the waterbody to be designated a SRPW. The new or increased discharge or activity will not be allowed unless the applicant can provide adequate evidence that specific pollution controls and/or other mitigation measures will completely eliminate any measurable impacts to the water quality necessary to protect the characteristics that cause the waterbody to be designated an SRPW. Notwithstanding that all public drinking water supplies are SRPWs, public drinking water suppliers may undertake temporary and short-term activities within the boundary perimeter of a public drinking water supply impoundment for essential maintenance or to address emergency conditions in order to prevent adverse effect on public health or safety. These activities must comply with the requirements set forth in Tier 1 and Tier 2.

Tier 3 - Where high quality waters constitute an Outstanding Natural Resource Water ONRW[3], that water quality shall be maintained and protected. The State may allow some limited activities that result in temporary and short-term changes in the water quality of an ONRW. Such activities must not permanently degrade water quality or result in water quality lower than necessary to protect the existing uses in the ONRW.

In order to implement the controls identified in the SMP, the average monthly and daily maximum mass limitations for TSS and BOD_5 for the WPCP included in the RIPDES permit will be increased by 250 lbs/day and 417 lbs/day, respectively. In addition the average annual flow will be increased by 1.0 MGD and the daily maximum flow will be increased from 19.7 MGD to 30.0 MGD. However, as indicated above,

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[2] SRPWs are surface waters identified by the Director as having significant recreational or ecological uses.

[3] ONRWs are a special subset of high quality water bodies, identified by the State as having significant recreational or ecological water uses.

these changes are only necessary to allow for an increased volume of combine sewage to be transported to the WPCP for full treatment instead of being partially treated and discharged through a CSO outfall. As a result, these permit limit increases result in a net decrease in the total pollutant loads discharged from the combined WWTF and CSO discharges. All other limits in this permit are at least as stringent as those in the previous permit. For the reasons provided above, the DEM has determined that all of these limits comply with the antidegradation requirements of the RI Water Quality Regulations.

Final Permit Limits

Presented in the following Tables is a summary of the permit limitations set forth in the Final Permit for all Outfalls.

Table #1: Outfall 001A – Newport WPCP Effluent

Parameter	Monthly Average	Weekly Average	Daily Maximum
Flow[1]	--- MGD (Annual Ave)	16.0 MGD (Monthly Ave)	19.7 MGD (Daily Max)
Flow[2]	13.1 MGD (Annual Ave)	16.0 MGD (Monthly Ave)	30.0 MGD (Daily Max)
Flow[3]	11.7 MGD (Annual Ave)	--- MGD[5] (Monthly Ave)	30.0 MGD (Daily Max)
BOD_5[6]	30 mg/L	45 mg/L	50 mg/L
BOD_5 Mass Limits	2,927 lbs/day		4,879 lbs/day
BOD_5 % Removal	85 %[7]		
TSS[6]	30 mg/L	45 mg/L	50 mg/L
TSS Mass Limits	2,927 lbs/day		4,879 lbs/day
TSS % Removal	85 %[7]		
Oil & Grease	--- mg/L		--- mg/L
Enterococci[1]	--- cfu / 100 mL		--- cfu / 100 mL
Enterococci[4]	35 cfu / 100 mL		276 cfu / 100 mL
Fecal Coliform[1]	200 MPN / 100 mL		400 MPN / 100 mL
Fecal Coliform[4]	--- MPN / 100 mL		--- MPN / 100 mL
Total Residual Chlorine	590 µg/L		860 µg/L
pH	6.0 SU (min.)		9.0 SU (max.)
Settleable Solids		--- ml/L	--- ml/L
TKN (as N), May 1 – October 31	--- mg/L		--- mg/L

Total Nitrate (as N), May 1 – October 31	--- mg/L		--- mg/L
Total Nitrite (as N), May 1 – October 31	--- mg/L		--- mg/L
Total Nitrogen (as N), May 1 – October 31	--- mg/L		--- mg/L
Total Nitrogen (as N), May 1 – October 31 Mass Limits	--- lb/d		
Cyanide[8]	--- ug/L		--- ug/L
Ammonia, Total[8]	--- mg/L		--- mg/L
Aluminum, Total[8]	--- ug/L		--- ug/L
Cadmium, Total[8]	--- ug/L		--- ug/L
Copper, Total[8]	--- ug/L		--- ug/L
Chromium, Hexavalent[8]	--- ug/L		--- ug/L
Lead, Total[8]	--- ug/L		--- ug/L
Nickel, Total[8]	--- ug/L		--- ug/L
Zinc, Total[8]	--- ug/L		--- ug/L
LC_{50} - Mysidopsis bahia			≥ 100%

Note: --- signifies a parameter that must be monitored and data reported; no limit has been established at this time.

[1]Limits shall be in effect from the effective date of the permit until the completion of WPCP upgrades required under the Consent Decree, as amended, that was entered to resolve the following civil action: *Environment Rhode Island, et. al. v. City of Newport*, US Dist. Ct. Dist. of RI, CA 08-265S

[2]Limits shall be in effect from the date of completion of the WPCP upgrades until completion of implementation of the System Master Plan required under the Consent Decree, as amended, that was entered to resolve the following civil action: *Environment Rhode Island, et. al. v. City of Newport*, US Dist. Ct. Dist. of RI, CA 08-265S

[3]Limits shall be in effect after the completion of implementation of the System Master Plan required under the Consent Decree, as amended, that was entered to resolve the following civil action: *Environment Rhode Island, et. al. v. City of Newport*, US Dist. Ct. Dist. of RI, CA 08-265S

[4]Limits shall be in effect from the date of completion of the WPCP upgrades required under the Consent Decree, as amended, that was entered to resolve the following civil action: *Environment Rhode Island, et. al. v. City of Newport*, US Dist. Ct. Dist. of RI, CA 08-265S

[5]The WPCP shall be operated in accordance with standard operating procedures to treat a monthly average flow of 16.0 MGD

[6]Testing for these parameters shall be performed and reported for influent and effluent with appropriate allowances for hydraulic detention (flow-through) time.

[7]Percent removal shall be calculated using data obtained during dry weather conditions. Sample results from calendar days in which there is 0.1 inches or more of rain or snow on the ground and the average temperature exceeds 32°F, shall not be included in the percent removal calculation.

[8]Monitoring data may be obtained in conjunction with bioassay testing.

Table #2: Outfall 010A – Washington Street CSO Facility

Parameter	Monthly Average	Weekly Average	Daily Maximum
Flow (Volume)			--- MG
BOD_5[1]	--- mg/L		--- mg/L
TSS[1]	--- mg/L		--- mg/L
BOD_5 % Removal[2]	35%[5]		
TSS % Removal[2]	50%[5]		
Enterococci[3]	--- cfu / 100 mL		--- cfu / 100 mL
Enterococci[4]	--- cfu[5] / 100 mL		276 cfu[5] / 100 mL
Fecal Coliform	--- MPN / 100 mL		--- MPN / 100 mL
Total Residual Chlorine[3]	--- ug/L		--- ug/L
Total Residual Chlorine[4]	--- ug/L		20 ug/L[5]
Oil & Grease	--- mg/L		--- mg/L

Note: --- signifies a parameter that must be monitored and data reported; no limit has been established at this time.

[1] Testing for these parameters shall be performed and reported for influent and effluent with appropriate allowances for hydraulic detention (flow-through) time.

[2] Percent removal shall be computed using the formula in the CSO Limitations section of this document.

[3]Limits shall be in effect from the effective date of the permit until the completion of the Washington Street CSO Facility Dechlorination improvements required by the Consent Decree, and any amendments thereto, entered in civil action *Environment Rhode Island, et. al. v. City of Newport*, US Dist. Ct. Dist. of RI, CA 08-265S.

[4]Limits shall be in effect after the date of completion of the Washington Street CSO Facility Dechlorination improvements required by the Consent Decree, and any amendments thereto, entered in civil action *Environment Rhode Island, et. al. v. City of Newport*, US Dist. Ct. Dist. of RI, CA 08-265S.

[5] All flows created by the greater than the one (1)-year six (6)-hour storm (depth = 1.95 inches), and all storms occurring less frequently as defined by the Figure in Attachment A-7, are not subject to these limitations.

* For monitoring purposes, an overflow is defined as any occurrence of a discharge from a CSO to the receiving water with a minimum duration of 15 minutes. Overflows shall be considered to be separate if they are separated by six (6) or more hours. During months of no overflow DMRs shall be marked as "no discharge." Dry weather overflows of any duration are prohibited. Any discharge from a CSO to the receiving water, regardless of the duration, must be reported as a CSO to the DEM's Operations and Maintenance Program.

Table #3: Outfall 007A – Wellington Avenue Microstraining Facility

Parameter	Monthly Average	Weekly Average	Daily Maximum
Flow (Volume)			--- MG
BOD_5[1]	--- mg/L		--- mg/L
BOD_5 % Removal	35%[2]		
TSS[1]	--- mg/L		--- mg/L
TSS % Removal	50%[2]		
Enterococci	--- cfu / 100 mL		--- cfu / 100 mL
Fecal Coliform	--- MPN / 100 mL		--- MPN / 100 mL
Total Residual Chlorine	--- ug/L		--- ug/L
Oil & Grease	--- mg/L		--- mg/L

Note: --- signifies a parameter that must be monitored and data reported; no limit has been established at this time.

[1] Testing for these parameters shall be performed and reported for influent and effluent with appropriate allowances for hydraulic detention (flow-through) time.

[2] All flows created by the greater than the one (1)-year six (6)-hour storm (depth = 1.95 inches), and all storms occurring less frequently as defined by the Figure in Attachment A-7, are not subject to these limitations.

* For monitoring purposes, an overflow is defined as any occurrence of a discharge from a CSO to the receiving water with a minimum duration of 15 minutes. Overflows shall be considered to be separate if they are separated by six (6) or more hours. During months of no overflow DMRs shall be marked as "no discharge." Dry weather overflows of any duration are prohibited. Any discharge from a CSO to the receiving water, regardless of the duration, must be reported as a CSO to the DEM's Operations and Maintenance Program.

V. 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. In accordance with Chapter 46-17.4 of Rhode Island General Laws, a public hearing will be held prior to the close of the public comment period. 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, 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, provided oral testimony, 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.

VI. **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:

Joseph B. Haberek, P.E.
Department of Environmental Management
Office of Water Resources
235 Promenade Street
Providence, Rhode Island 02908
Telephone: (401) 222-6820, Ext. 7715
E-mail: joseph.haberek@dem.ri.gov

3/10/15
Date

Joseph B. Haberek, P.E.
Principal Sanitary Engineer
RIPDES Program
Office of Water Resources
Department of Environmental Management

FIGURE #1

Newport WPCP Flow Diagram

Newport WPCP Plant Process Diagram

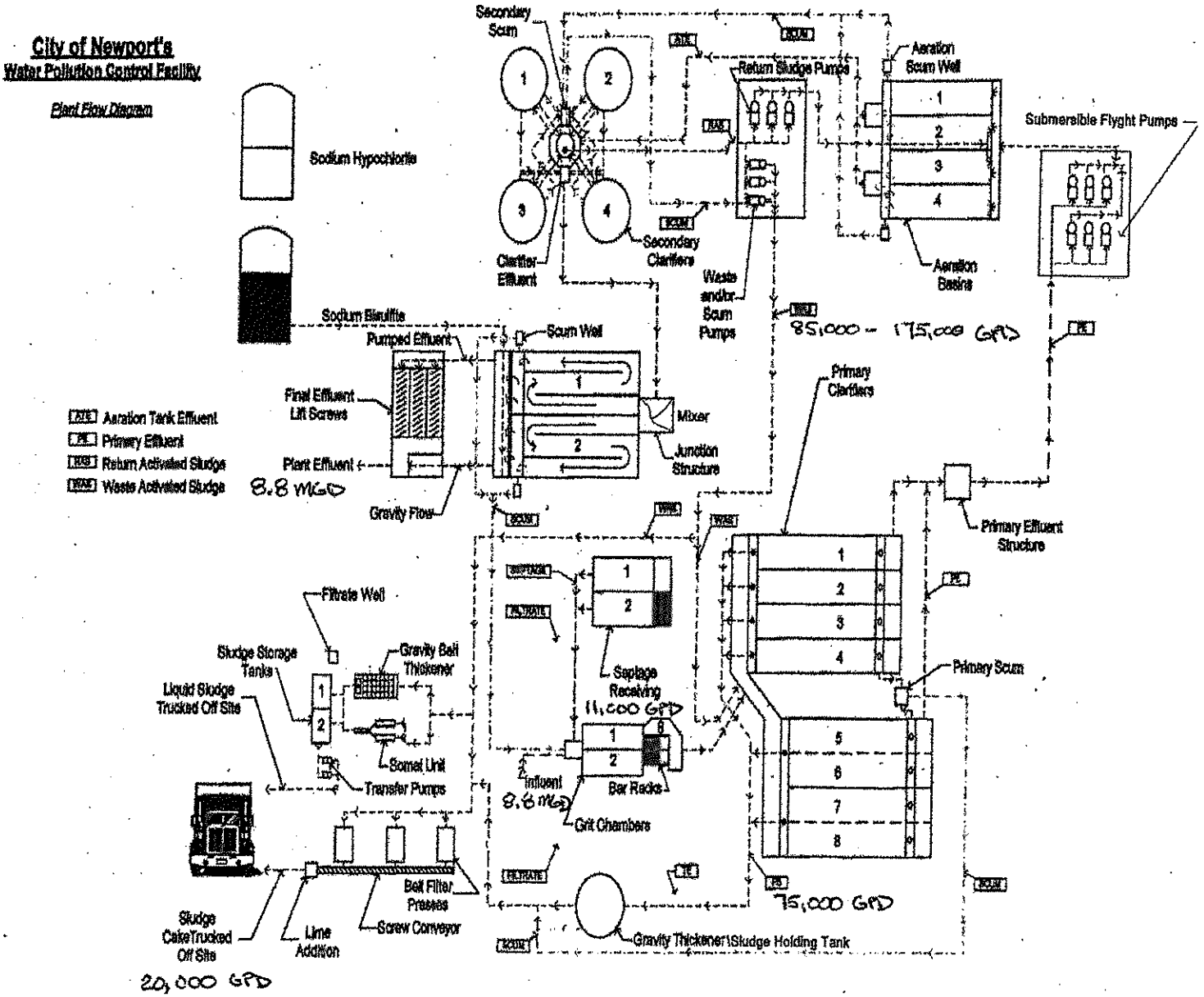
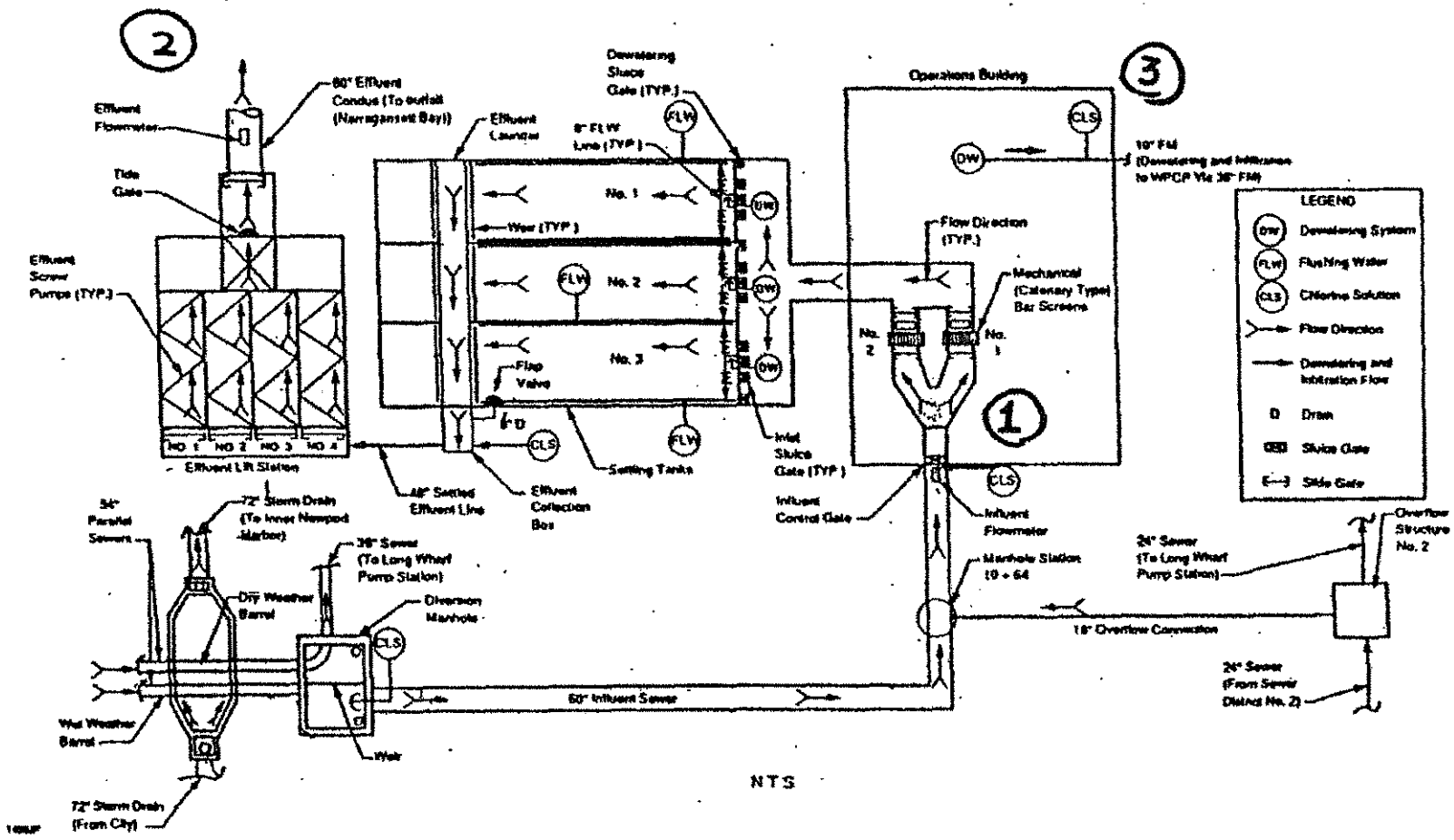


FIGURE #2

Washington Street CSO Facility Flow Diagram

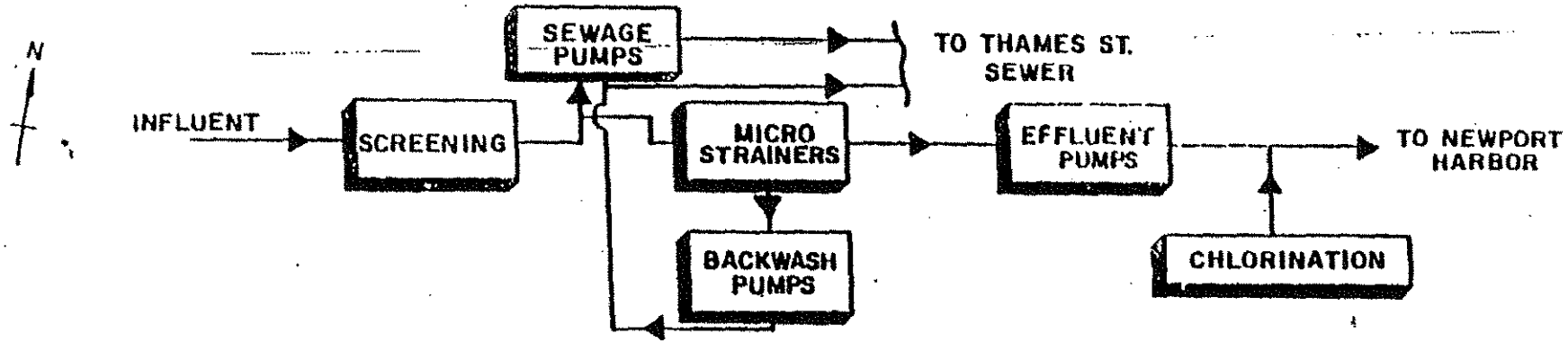


Source: Metcalf and Eddy

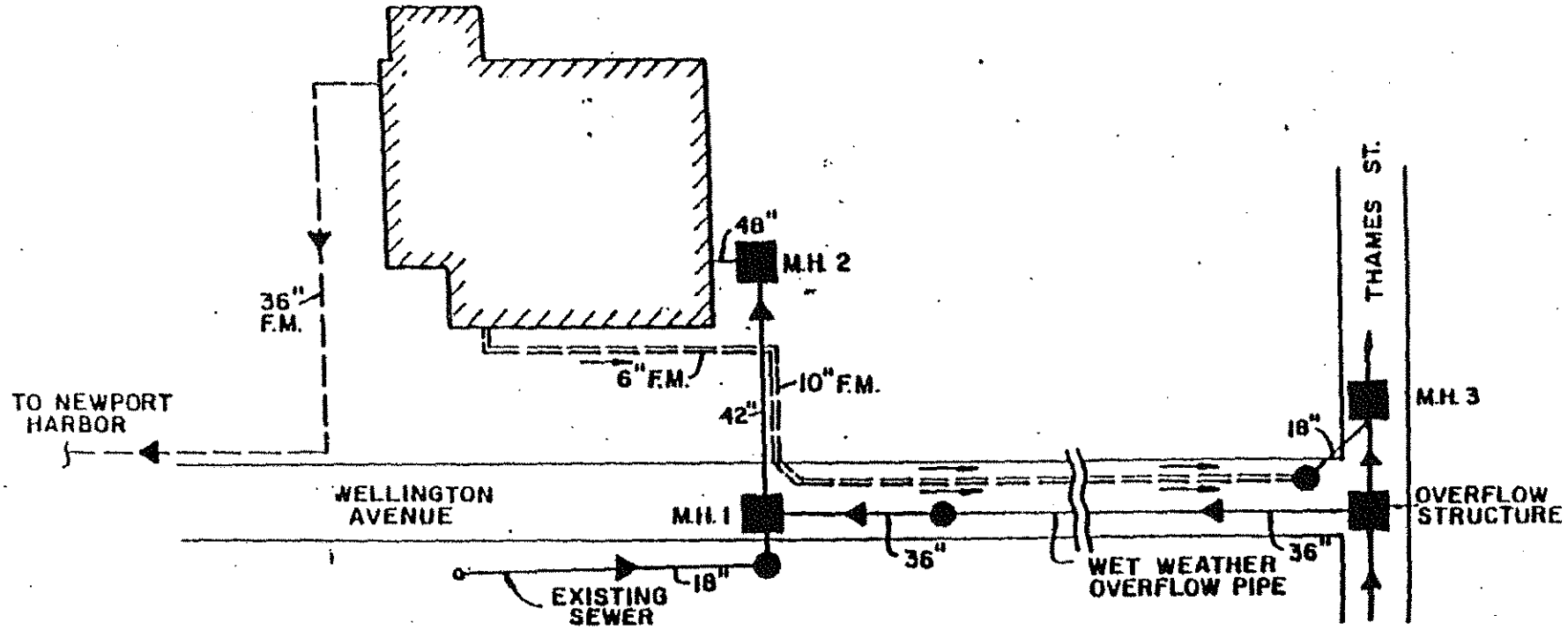
Washington Street
CSO Facility Flow Diagram

FIGURE #3

Wellington Avenue CSO Facility Flow Diagram



WELLINGTON AVENUE PUMPING STATION & MICROSTRAINING FACILITY SCHEMATIC

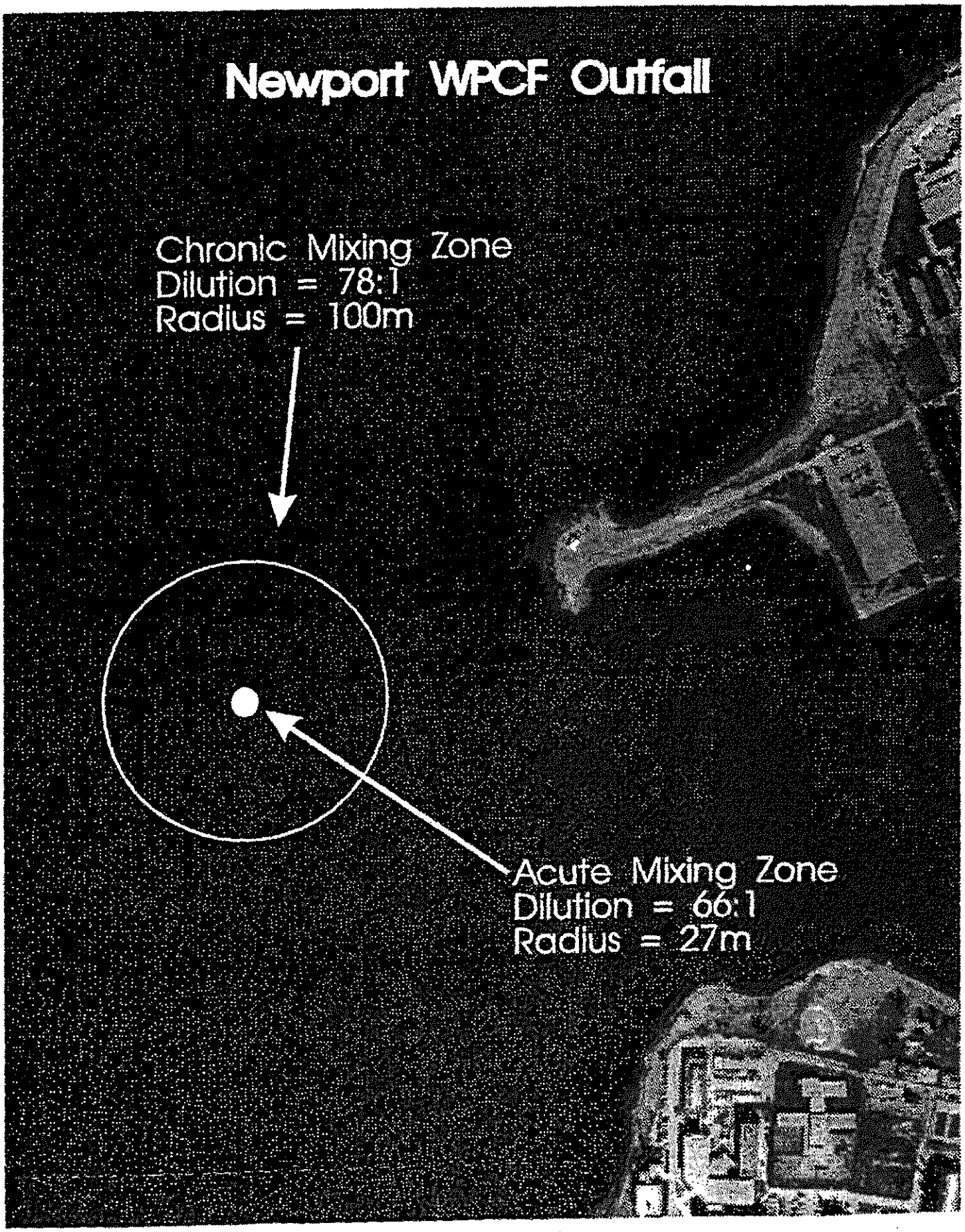


Wellington Avenue CSO Facility
Flow Diagram

Source: Keyes Associates

FIGURE #4

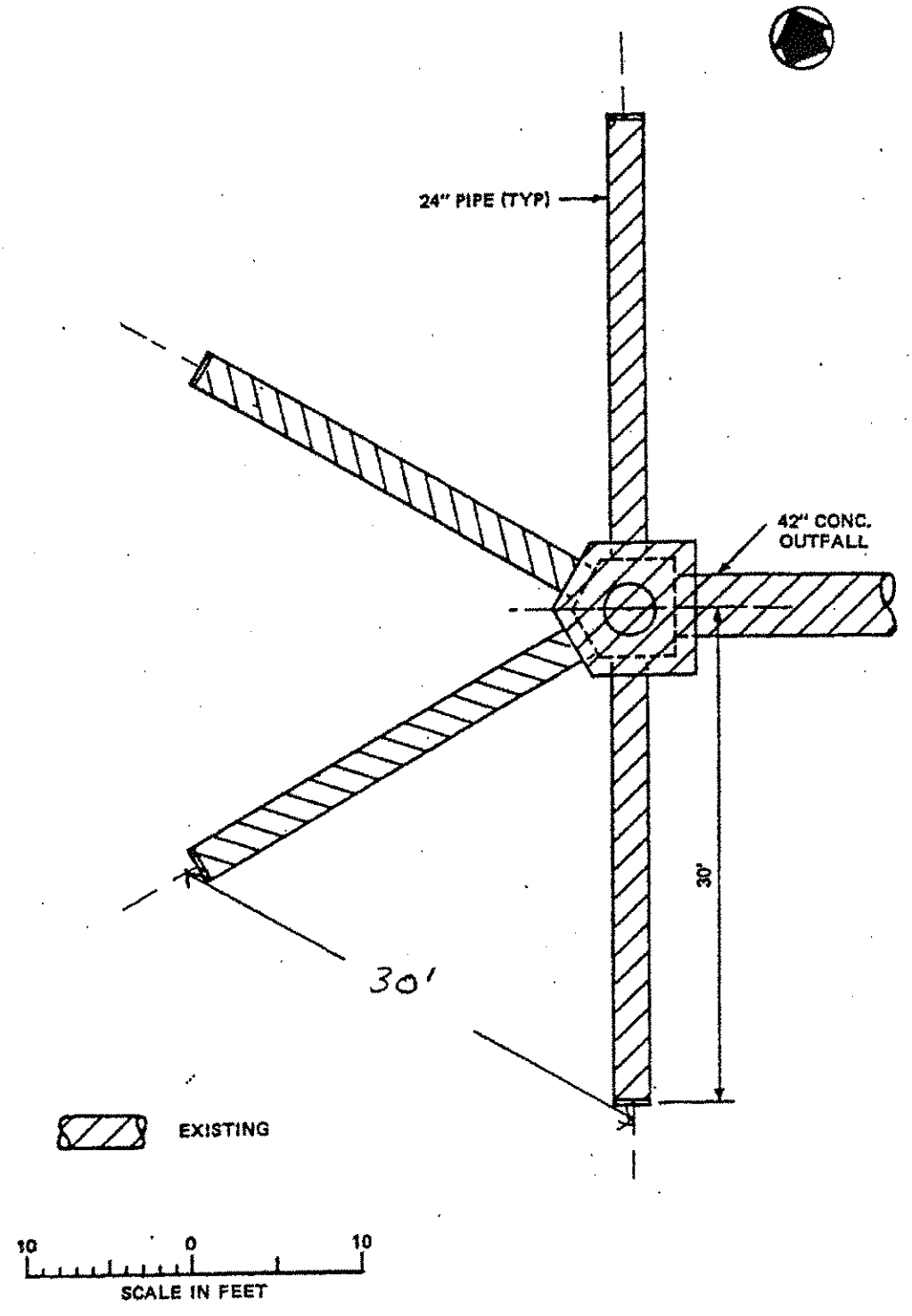
Newport WPCP Acute and Chronic Mixing Zones



Newport WPCF Mixing Zone Diagram

FIGURE #5

Newport WPCP Outfall Pipe Diffuser Schematic



Newport's WPCP Outfall as shown in the "Application for Modification of Secondary Treatment Requirements for its Water Pollution Control Plant Effluent Discharge into Marine Waters", Vol I., Metcalf & Eddy, Inc.

Newport WPCP's Outfall Pipe
Diffuser Schematic

Attachment A-1 –
EPA Region 1 Annual Pretreatment Report Summary Sheet

POTW Name:

NPDES Permit #:

Pretreatment Report Period Start Date:

Pretreatment Report Period End Date:

# of Significant Industrial Users (SIUs):

# of SIUs Without Control Mechanisms:

# of SIUs not Inspected:

# of SIUs not Sampled:

# of SIUs in Significant Noncompliance (SNC) with Pretreatment Standards:

# of SIUs in SNC with Reporting Requirements:

# of SIUs in SNC with Pretreatment Compliance Schedule:

# of SIUs in SNC Published in Newspaper:

# of SIUs with Compliance Schedules:

# of Violation Notices Issued to SIUs:

# of Administrative Orders Issued to SIUs:

# of Civil Suits Filed Against SIUs:

# of Criminal Suits Filed Against SIUs:

# of Categorical Industrial Users (CIUs):

# of CIUs in SNC:

<u>Penalties</u>

Total Dollar Amount of Penalties Collected $

# of IUs from which Penalties have been collected:

Local Limits

Date of Most Recent Technical Evaluation of Local Limits:

Date of Most Recent Adoption of Technically Based Local Limits:

Pollutant	Limit (mg/l)	MAHL (lb/day)

ATTACHMENT A-2

DESCRIPTION OF DISCHARGE: Secondary treated domestic and industrial wastewater.
DISCHARGE: 001A - Secondary Treatment Discharge

AVERAGE EFFLUENT CHARACTERISTICS AT POINT OF DISCHARGE:

PARAMETER	AVERAGE[1]	MAXIMUM[2]
FLOW (MGD)	8.81 MGD	14.04 MGD
BOD_5	*13.4 mg/l* *1042.0 lbs/d*	*31.8 mg/l* *2748.5 lbs/d*
TSS	15.1 mg/l 1128.0 lbs/d	39.4 mg/l 3260.2 lbs/d
Fecal Coliform	6.8 MPN/100 ml	
pH	6.2 S.U. (Minimum)	7.6 S.U. (Maximum)
Chlorine Residual	179.9 ug/l	468.3 ug/l
Oil & Grease		3.7 mg/l
Total Kjeldahl Nitrogen (as N) (May – Oct)		6.2 mg/l
Total Nitrate Nitrogen (as N) (May – Oct)		2.9 mg/l
Total Nitrite Nitrogen (as N) (May – Oct)		0.9 mg/l
Total Nitrogen (as N) (May – Oct)		10.7 mg/l
Settleable Solids	0.26 ml/l	1.07 ml/l
BOD_5 (% Removal)	92.1 %	
TSS (% Removal)	92.3 %	

[1]Data represents the mean of the monthly average data from 6/09 – 3/14
[2]Data represents the mean of the daily maximum data from 3/09 – 3/14

Biotoxicity Data LC_{50} Values (in percent effluent)

	2010			**2011**				**2012**
	2nd qtr.	**3rd qtr.**	**4th qtr.**	**1st qtr.**	**2nd qtr.**	**3rd qtr.**	**4th qtr.**	**1st qtr.**
Pre-Cl_2 Mysid (Shrimp)	>100%	>100%	>100%	>100%	>100%	>100%	>100%	>100%
	2012			**2013**				**2014**
	2nd qtr.	**3rd qtr.**	**4th qtr.**	**1st qtr.**	**2nd qtr.**	**3rd qtr.**	**4th qtr.**	**1st qtr.**
	>100%	>100%	>100%	>100%	>100%	>100%	>100%	>100%

ATTACHMENT A-3

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: Newport WPCP

RIPDES PERMIT #: RI0100293

	DISSOLVED BACKGROUND DATA (ug/L)	ACUTE METAL TRANSLATOR	CHRONIC METAL TRANSLATOR
ALUMINUM	NA	NA	NA
ARSENIC	NA	1	1
CADMIUM	0.0351	0.994	0.994
CHROMIUM III	NA	NA	NA
CHROMIUM VI	0.1873	0.993	0.993
COPPER	0.6629	0.83	0.83
LEAD	0.046	0.951	0.951
MERCURY	NA	0.85	NA
NICKEL	1.1698	0.99	0.99
SELENIUM	NA	0.998	0.998
SILVER	0.0048	0.85	0.85
ZINC	NA	0.946	0.946

USE NA WHEN NO DATA IS AVAILABLE

NOTE 1: BACKGROUND DATA BASED ON AVERAGE CONCENTRATIONS OBTAINED FROM THE FOUR SINBADD CRUISES IN CURRENT REPORT #: NBP-89-22 (LOCATIONS B7, B8, B9, B13, B14, B15, & B16).

NOTE 2: METAL TRANSLATORS FROM RI WATER QUALITY REGS.

DILUTION FACTORS		
	ACUTE =	66 x
	CHRONIC =	78 x
	HUMAN HEALTH =	78 x

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

TOTAL AMMONIA CRITERIA (ug/L)		
WINTER	ACUTE =	21000
	CHRONIC =	3100
SUMMER	ACUTE =	7300
	CHRONIC =	1100

NOTE 1: LIMITS ARE FROM TABLE 3 IN THE RI WATER QUALITY REGS.
USING:
SALINITY = 30 g/Kg
WINTER (NOV-APRIL) pH=8.0 s.u.;
SUMMER (MAY-OCT) pH=8.0 s.u.
WINTER (NOV-APRIL) TEMP=5.0 C;
SUMMER (MAY-OCT) TEMP=20.0 C.

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: Newport WPCP RIPDES PERMIT #: RI0100293

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	39936
ARSENIC (limits are total recoverable)	7440382	NA	69	3643.2	36	1.4	87.36
ASBESTOS	1332214			No Criteria			No Criteria
BERYLLIUM	7440417			No Criteria			No Criteria
CADMIUM (limits are total recoverable)	7440439	0.0351	40	2388.046781	8.8		618.7699195
CHROMIUM III (limits are total recoverable)	16065831	NA		No Criteria			No Criteria
CHROMIUM VI (limits are total recoverable)	18540299	0.1873	1100	65788.34391	50		3520.219436
COPPER (limits are total recoverable)	7440508	0.6629	4.8	291.6042169	3.1		200.6948193
CYANIDE	57125		1	52.80	1	140	62.4
LEAD (limits are total recoverable)	7439921	0.046	210	13113.57518	8.1		594.1934805
MERCURY (limits are total recoverable)	7439976	NA	1.8	111.8117647	0.94	0.15	9.36
NICKEL (limits are total recoverable)	7440020	1.1598	74	4363.851515	8.2	4600	491.2478788
SELENIUM (limits are total recoverable)	7782492	NA	290	15342.68537	71	4200	4439.278557
SILVER (limits are total recoverable)	7440224	0.0048	1.9	132.4094118			No Criteria
THALLIUM	7440280			No Criteria		0.47	29.328
ZINC (limits are total recoverable)	7440666	NA	90	5023.255814	81	26000	5342.917548
VOLATILE ORGANIC COMPOUNDS							
ACROLEIN	107028			No Criteria		290	18096
ACRYLONITRILE	107131			No Criteria		2.5	156
BENZENE	71432			No Criteria		510	31824
BROMOFORM	75252			No Criteria		1400	87360
CARBON TETRACHLORIDE	56235			No Criteria		16	998.4
CHLOROBENZENE	108907			No Criteria		1600	99840
CHLORODIBROMOMETHANE	124481			No Criteria		130	8112
CHLOROFORM	67663			No Criteria		4700	293280
DICHLOROBROMOMETHANE	75274			No Criteria		170	10608
1,2DICHLOROETHANE	107062			No Criteria		370	23088
1,1DICHLOROETHYLENE	75354			No Criteria		7100	443040
1,2DICHLOROPROPANE	78875			No Criteria		150	9360
1,3DICHLOROPROPYLENE	542756			No Criteria		21	1310.4
ETHYLBENZENE	100414			No Criteria		2100	131040
BROMOMETHANE (methyl bromide)	74839			No Criteria		1500	93600
CHLOROMETHANE (methyl chloride)	74873			No Criteria			No Criteria
METHYLENE CHLORIDE	75092			No Criteria		5900	368160

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: Newport WPCP RIPDES PERMIT #: RI0100293

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	2496
TETRACHLOROETHYLENE	127184			No Criteria		33	2059.2
TOLUENE	108883			No Criteria		15000	936000
1,2TRANSDICHLOROETHYLENE	156605			No Criteria		10000	624000
1,1,1TRICHLOROETHANE	71556			No Criteria			No Criteria
1,1,2TRICHLOROETHANE	79005			No Criteria		160	9984
TRICHLOROETHYLENE	79016			No Criteria		300	18720
VINYL CHLORIDE	75014			No Criteria		2.4	149.76
ACID ORGANIC COMPOUNDS							
2CHLOROPHENOL	95578			No Criteria		150	9360
2,4DICHLOROPHENOL	120832			No Criteria		290	18096
2,4DIMETHYLPHENOL	105679			No Criteria		850	53040
4,6DINITRO2METHYL PHENOL	534521			No Criteria		280	17472
2,4DINITROPHENOL	51285			No Criteria		5300	330720
4NITROPHENOL	88755			No Criteria			No Criteria
PENTACHLOROPHENOL	87865		13	686.4	7.9	30	492.96
PHENOL	108952			No Criteria		1700000	106080000
2,4,6TRICHLOROPHENOL	88062			No Criteria		24	1497.6
BASE NEUTRAL COMPUNDS							
ACENAPHTHENE	83329			No Criteria		990	61776
ANTHRACENE	120127			No Criteria		40000	2496000
BENZIDINE	92875			No Criteria		0.002	0.1248
POLYCYCLIC AROMATIC HYDROCARBONS				No Criteria		0.18	11.232
BIS(2CHLOROETHYL)ETHER	111444			No Criteria		5.3	330.72
BIS(2CHLOROISOPROPYL)ETHER	108601			No Criteria		65000	4056000
BIS(2ETHYLHEXYL)PHTHALATE	117817			No Criteria		22	1372.8
BUTYL BENZYL PHTHALATE	85687			No Criteria		1900	118560
2CHLORONAPHTHALENE	91587			No Criteria		1600	99840
1,2DICHLOROBENZENE	95501			No Criteria		1300	81120
1,3DICHLOROBENZENE	541731			No Criteria		960	59904
1,4DICHLOROBENZENE	106467			No Criteria		190	11856
3,3DICHLOROBENZIDENE	91941			No Criteria		0.28	17.472
DIETHYL PHTHALATE	84662			No Criteria		44000	2745600
DIMETHYL PHTHALATE	131113			No Criteria		1100000	68640000
DInBUTYL PHTHALATE	84742			No Criteria		4500	280800
2,4DINITROTOLUENE	121142			No Criteria		34	2121.6

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: Newport WPCP RIPDES PERMIT #: RI0100293

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	124.8
FLUORANTHENE	206440			No Criteria		140	8736
FLUORENE	86737			No Criteria		5300	330720
HEXACHLOROBENZENE	118741			No Criteria		0.0029	0.18096
HEXACHLOROBUTADIENE	87683			No Criteria		180	11232
HEXACHLOROCYCLOPENTADIENE	77474			No Criteria		1100	68640
HEXACHLOROETHANE	67721			No Criteria		33	2059.2
ISOPHORONE	78591			No Criteria		9600	599040
NAPHTHALENE	91203			No Criteria			No Criteria
NITROBENZENE	98953			No Criteria		690	43056
NNITROSODIMETHYLAMINE	62759			No Criteria		30	1872
NNITROSODINPROPYLAMINE	621647			No Criteria		5.1	318.24
NNITROSODIPHENYLAMINE	86306			No Criteria		60	3744
PYRENE	129000			No Criteria		4000	249600
1,2,4trichlorobenzene	120821			No Criteria		70	4368
PESTICIDES/PCBs							
ALDRIN	309002		1.3	68.64		0.0005	0.0312
Alpha BHC	319846			No Criteria		0.049	3.0576
Beta BHC	319857			No Criteria		0.17	10.608
Gamma BHC (Lindane)	58899		0.16	8.448		1.8	112.32
CHLORDANE	57749		0.09	4.752	0.004	0.0081	0.2496
4,4DDT	50293		0.13	6.864	0.001	0.0022	0.0624
4,4DDE	72559			No Criteria		0.0022	0.13728
4,4DDD	72548			No Criteria		0.0031	0.19344
DIELDRIN	60571		0.71	37.488	0.0019	0.00054	0.033696
ENDOSULFAN (alpha)	959988		0.034	1.7952	0.0087	89	0.54288
ENDOSULFAN (beta)	33213659		0.034	1.7952	0.0087	89	0.54288
ENDOSULFAN (sulfate)	1031078			No Criteria		89	5553.6
ENDRIN	72208		0.037	1.9536	0.0023	0.06	0.14352
ENDRIN ALDEHYDE	7421934			No Criteria		0.3	18.72
HEPTACHLOR	76448		0.053	2.7984	0.0036	0.00079	0.049296
HEPTACHLOR EPOXIDE	1024573		0.053	2.7984	0.0036	0.00039	0.024336
POLYCHLORINATED BIPHENYLS3	1336363			No Criteria	0.03	0.00064	0.039936
2,3,7,8TCDD (Dioxin)	1746016			No Criteria		0.000000051	3.1824E-06
TOXAPHENE	8001352		0.21	11.088	0.0002	0.0028	0.01248
TRIBUTYLTIN			0.42	22.176	0.0074		0.46176

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: Newport WPCP RIPDES PERMIT #: RI0100293

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		17262 | 6000.6	911434 316832	2548 | 904.2		159008 | 56422.1
4BROMOPHENYL PHENYL ETHER				No Criteria			No Criteria
CHLORIDE	16887006			No Criteria			No Criteria
CHLORINE	7782505		13	858	7.5		585
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: Newport WPCP RIPDES PERMIT #: RI0100293

CHEMICAL NAME	CAS#	DAILY MAX LIMIT (ug/L)	MONTHLY AVE LIMIT (ug/L)
PRIORITY POLLUTANTS:			
TOXIC METALS AND CYANIDE			
ANTIMONY	7440360	No Criteria	39936.00
ARSENIC, TOTAL	7440382	3643.20	87.36
ASBESTOS	1332214	No Criteria	No Criteria
BERYLLIUM	7440417	No Criteria	No Criteria
CADMIUM, TOTAL	7440439	2388.05	618.77
CHROMIUM III, TOTAL	16065831	No Criteria	No Criteria
CHROMIUM VI, TOTAL	18540299	65788.34	3520.22
COPPER, TOTAL	7440508	291.60	200.69
CYANIDE	57125	52.80	52.80
LEAD, TOTAL	7439921	13113.58	594.19
MERCURY, TOTAL	7439976	111.81	9.36
NICKEL, TOTAL	7440020	4363.85	491.25
SELENIUM, TOTAL	7782492	15342.69	4439.28
SILVER, TOTAL	7440224	132.41	No Criteria
THALLIUM	7440280	No Criteria	29.33
ZINC, TOTAL	7440666	5023.26	5023.26
VOLATILE ORGANIC COMPOUNDS			
ACROLEIN	107028	No Criteria	18096.00
ACRYLONITRILE	107131	No Criteria	156.00
BENZENE	71432	No Criteria	31824.00
BROMOFORM	75252	No Criteria	87360.00
CARBON TETRACHLORIDE	56235	No Criteria	998.40
CHLOROBENZENE	108907	No Criteria	99840.00
CHLORODIBROMOMETHANE	124481	No Criteria	8112.00
CHLOROFORM	67663	No Criteria	293280.00
DICHLOROBROMOMETHANE	75274	No Criteria	10608.00
1,2DICHLOROETHANE	107062	No Criteria	23088.00
1,1DICHLOROETHYLENE	75354	No Criteria	443040.00
1,2DICHLOROPROPANE	78875	No Criteria	9360.00
1,3DICHLOROPROPYLENE	542756	No Criteria	1310.40
ETHYLBENZENE	100414	No Criteria	131040.00
BROMOMETHANE (methyl bromide)	74839	No Criteria	93600.00
CHLOROMETHANE (methyl chloride)	74873	No Criteria	No Criteria
METHYLENE CHLORIDE	75092	No Criteria	368160.00
1,1,2,2TETRACHLOROETHANE	79345	No Criteria	2496.00
TETRACHLOROETHYLENE	127184	No Criteria	2059.20
TOLUENE	108883	No Criteria	936000.00
1,2TRANSDICHLOROETHYLENE	156605	No Criteria	624000.00
1,1,1TRICHLOROETHANE	71556	No Criteria	No Criteria
1,1,2TRICHLOROETHANE	79005	No Criteria	9984.00
TRICHLOROETHYLENE	79016	No Criteria	18720.00
VINYL CHLORIDE	75014	No Criteria	149.76
ACID ORGANIC COMPOUNDS			
2CHLOROPHENOL	95578	No Criteria	9360.00
2,4DICHLOROPHENOL	120832	No Criteria	18096.00
2,4DIMETHYLPHENOL	105679	No Criteria	53040.00
4,6DINITRO2METHYL PHENOL	534521	No Criteria	17472.00
2,4DINITROPHENOL	51285	No Criteria	330720.00
4NITROPHENOL	88755	No Criteria	No Criteria
PENTACHLOROPHENOL	87865	686.40	492.96
PHENOL	108952	No Criteria	106080000.00
2,4,6TRICHLOROPHENOL	88062	No Criteria	1497.60
BASE NEUTRAL COMPUNDS			
ACENAPHTHENE	83329	No Criteria	61776.00
ANTHRACENE	120127	No Criteria	2496000.00
BENZIDINE	92875	No Criteria	0.12
PAHs		No Criteria	11.23
BIS(2CHLOROETHYL)ETHER	111444	No Criteria	330.72
BIS(2CHLOROISOPROPYL)ETHER	108601	No Criteria	4056000.00
BIS(2ETHYLHEXYL)PHTHALATE	117817	No Criteria	1372.80
BUTYL BENZYL PHTHALATE	85687	No Criteria	118560.00
2CHLORONAPHTHALENE	91587	No Criteria	99840.00
1,2DICHLOROBENZENE	95501	No Criteria	81120.00
1,3DICHLOROBENZENE	541731	No Criteria	59904.00
1,4DICHLOROBENZENE	106467	No Criteria	11856.00
3,3DICHLOROBENZIDENE	91941	No Criteria	17.47
DIETHYL PHTHALATE	84662	No Criteria	2745600.00
DIMETHYL PHTHALATE	131113	No Criteria	68640000.00
DI-n-BUTYL PHTHALATE	84742	No Criteria	280800.00
2,4DINITROTOLUENE	121142	No Criteria	2121.60
1,2DIPHENYLHYDRAZINE	122667	No Criteria	124.80
FLUORANTHENE	206440	No Criteria	8736.00

CALCULATION OF WATER QUALITY BASED SALTWATER DISCHARGE LIMITS

FACILITY NAME: Newport WPCP RIPDES PERMIT #: RI0100293

CHEMICAL NAME	CAS#	DAILY MAX LIMIT (ug/L)	MONTHLY AVE LIMIT (ug/L)
FLUORENE	86737	No Criteria	330720.00
HEXACHLOROBENZENE	118741	No Criteria	0.18
HEXACHLOROBUTADIENE	87683	No Criteria	11232.00
HEXACHLOROCYCLOPENTADIENE	77474	No Criteria	68640.00
HEXACHLOROETHANE	67721	No Criteria	2059.20
ISOPHORONE	78591	No Criteria	599040.00
NAPHTHALENE	91203	No Criteria	No Criteria
NITROBENZENE	98953	No Criteria	43056.00
N-NITROSODIMETHYLAMINE	62759	No Criteria	1872.00
N-NITROSODI-N-PROPYLAMINE	621647	No Criteria	318.24
N-NITROSODIPHENYLAMINE	86306	No Criteria	3744.00
PYRENE	129000	No Criteria	249600.00
1,2,4trichlorobenzene	120821	No Criteria	4368.00
PESTICIDES/PCBs			
ALDRIN	309002	68.64	0.03
Alpha BHC	319846	No Criteria	3.06
Beta BHC	319857	No Criteria	10.61
Gamma BHC (Lindane)	58899	8.45	8.45
CHLORDANE	57749	4.75	0.25
4,4DDT	50293	6.86	0.06
4,4DDE	72559	No Criteria	0.14
4,4DDD	72548	No Criteria	0.19
DIELDRIN	60571	37.49	0.03
ENDOSULFAN (alpha)	959988	1.80	0.54
ENDOSULFAN (beta)	33213659	1.80	0.54
ENDOSULFAN (sulfate)	1031078	No Criteria	5553.60
ENDRIN	72208	1.95	0.14
ENDRIN ALDEHYDE	7421934	No Criteria	18.72
HEPTACHLOR	76448	2.80	0.05
HEPTACHLOR EPOXIDE	1024573	2.80	0.02
POLYCHLORINATED BIPHENYLS3	1336363	No Criteria	0.04
2,3,7,8TCDD (Dioxin)	1746016	No Criteria	0.00
TOXAPHENE	8001352	11.09	0.01
TRIBUTYLTIN		22.18	0.46

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	911433.60	159007.68
AMMONIA (as N), SUMMER (MAY-OC	7664417	316831.68	56422.08
4BROMOPHENYL PHENYL ETHER		No Criteria	No Criteria
CHLORIDE	16887006	No Criteria	No Criteria
CHLORINE	7782505	858.00	585.00
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 A-4

Summary of Discharge Monitoring Report Data
June 2009 through March 2014

NEWPORT WPCF

DMR Data Summary 7/1/14

***** NOT ICIS CERTIFIED*****

002C

BOD, 5-day, percent removal Location= K

	MINIMUM %
Mean	52.9074
Minimum	.
Maximum	120.
Data Count	27

Settleable solids percent removal Location= K

	DAILY MX %
Mean	208.1852
Minimum	.
Maximum	3842.
Data Count	27

Solids, suspended percent removal Location= K

	MINIMUM %
Mean	57.1296
Minimum	.
Maximum	469.
Data Count	27

007A

Chlorine, total residual Location= 1

	DAILY MX mg/L
Mean	3.0588
Minimum	.03
Maximum	8.8
Data Count	32

Coliform, fecal general Location= 1

	DAILY MX MPN/100mL
Mean	9315591.9355
Minimum	2.
Maximum	24000000.
Data Count	31

BOD, 5-day, 20 deg. C Location= G

	DAILY MX mg/L
Mean	85.0625
Minimum	21.
Maximum	388.
Data Count	32

Coliform, fecal general Location= G

	DAILY MX MPN/100mL
Mean	10341214.1935
Minimum	1600.
Maximum	24000000.
Data Count	31

Flow, total Location= G

	DAILY MX Mgal
Mean	1.2805
Minimum	.02
Maximum	14.32

Data Count 36

Oil & Grease Location= G

	DAILY MX mg/L
Mean	9.9906
Minimum	1.7
Maximum	29.
Data Count	32

Solids, settleable Location= G

	DAILY MX mL/L
Mean	2.675
Minimum	.
Maximum	8.
Data Count	32

Solids, total suspended Location= G

	DAILY MX mg/L
Mean	80.7188
Minimum	20.
Maximum	375.
Data Count	32

010A

BOD, 5-day, 20 deg. C Location= 1

	DAILY MX mg/L
Mean	75.0714
Minimum	3.
Maximum	651.
Data Count	28

Chlorine, total residual Location= 1

	DAILY MX mg/L
Mean	5.9136
Minimum	.98
Maximum	11.
Data Count	28

Coliform, fecal general Location= 1

	DAILY MX MPN/100mL
Mean	8976120.5185
Minimum	2.
Maximum	24000000.
Data Count	27

Flow, total Location= 1

	DAILY MX Mgal
Mean	448579.0636
Minimum	.19
Maximum	12560000.
Data Count	28

Oil & Grease Location= 1

	DAILY MX mg/L
Mean	9.9143
Minimum	3.3
Maximum	21.
Data Count	28

Solids, settleable Location= 1

	DAILY MX mL/L
Mean	.5857
Minimum	.1
Maximum	8.
Data Count	28

Solids, total suspended Location= 1

	DAILY MX mg/L
Mean	61.4643
Minimum	12.
Maximum	870.
Data Count	28

FACA

BOD, 5-day, 20 deg. C Location= 1

	MO AVG lb/d	DAILY MX lb/d
Mean	1041.9828	2748.4655
Minimum	228.	450.
Maximum	3414.	10278.
Data Count	58	58

	MO AVG mg/L	WKLY AVG mg/L	DAILY MX mg/L
Mean	13.431	21.6724	31.8448
Minimum	3.	3.	10.
Maximum	33.	63.	122.
Data Count	58	58	58

Chlorine, total residual Location= 1

	MO AVG ug/L	DAILY MX ug/L
Mean	179.9138	468.3103
Minimum	77.	148.
Maximum	339.	950.
Data Count	58	58

Coliform, fecal general Location= 1

	MO GEO MPN/100mL	WKLY GEO MPN/100mL	DAILY MX MPN/100mL
Mean	6.7759	307.8276	827667.5862

Minimum	1.	1.	2.
Maximum	75.	15492.	24000000.
Data Count	58	58	58

Flow, in conduit or thru treatment plant Location= 1

	MO AVG MGD	DAILY MX MGD
Mean	8.8122	14.035
Minimum	3.7	7.3
Maximum	16.	21.1
Data Count	58	58

Nitrogen, Kjeldahl, total [as N] Location= 1

	DAILY MX mg/L
Mean	6.2397
Minimum	.01
Maximum	19.
Data Count	29

Nitrogen, nitrate total [as N] Location= 1

	DAILY MX mg/L
Mean	2.8672
Minimum	.03
Maximum	11.
Data Count	29

Nitrogen, nitrite total [as N] Location= 1

	DAILY MX mg/L
Mean	.8976
Minimum	.01
Maximum	6.02
Data Count	29

Nitrogen, total Location= 1

	DAILY MX mg/L
Mean	10.7383
Minimum	.86
Maximum	22.04
Data Count	29

Oil & Grease Location= 1

	DAILY MX mg/L
Mean	3.7241
Minimum	.1
Maximum	8.9
Data Count	58

pH Location= 1

	MINIMUM SU	MAXIMUM SU
Mean	6.7124	7.306
Minimum	6.2	7.
Maximum	7.	7.6
Data Count	58	58

Solids, settleable Location= 1

	WKLY AVG mL/L	DAILY MX mL/L
Mean	.2638	1.0724
Minimum	.1	.1
Maximum	6.4	32.
Data Count	58	58

Solids, total suspended Location= 1

	MO AVG lb/d	DAILY MX lb/d
Mean	1127.9828	3260.1724
Minimum	360.	691.
Maximum	4016.	14158.
Data Count	58	58

	MO AVG mg/L	WKLY AVG mg/L	DAILY MX mg/L
Mean	15.1207	24.	39.3793
Minimum	6.	6.	10.
Maximum	39.	79.	180.
Data Count	58	58	58

LC50 Statre 48Hr Acute Mysid. Bahia Location= B

	DAILY MN %
Mean	95.
Minimum	.
Maximum	100.
Data Count	20

BOD, 5-day, 20 deg. C Location= G

	MO AVG lb/d	DAILY MX lb/d
Mean	13835.3276	23918.4655
Minimum	6462.	8885.
Maximum	24346.	59839.
Data Count	58	58

	MO AVG mg/L	WKLY AVG mg/L	DAILY MX mg/L
Mean	200.8103	248.9655	330.8793
Minimum	72.	99.	127.
Maximum	341.	425.	700.
Data Count	58	58	58

Oil & Grease Location= G

	DAILY MX mg/L
Mean	34.5172
Minimum	9.
Maximum	91.
Data Count	58

Solids, total suspended Location= G

	MO AVG lb/d	DAILY MX lb/d
Mean	14729.9828	26169.2759
Minimum	9947.	10532.
Maximum	22495.	76270.
Data Count	58	58

	MO AVG mg/L	WKLY AVG mg/L	DAILY MX mg/L
Mean	218.0345	278.3448	411.4828
Minimum	85.	121.	159.
Maximum	354.	566.	1200.
Data Count	58	58	58

BOD, 5-day, percent removal Location= K

	MINIMUM %
Mean	92.1172
Minimum	66.
Maximum	99.
Data Count	58

Solids, suspended percent removal Location= K

	MINIMUM %
Mean	92.3362
Minimum	67.
Maximum	98.
Data Count	58

ATTACHMENT A-5

Summary of State User Fee Program Data
June 2009 through March 2014

Newport WPCP

State User Fee Program Data Summary

Parameter	Date	Result
Arsenic	8/12/2009	4
	8/3/2010	4
	8/22/2011	3
	Maximum	4
	Average	3.666666667
BOD	8/12/2009	8000
	8/3/2010	4000
	8/22/2011	7000
	Maximum	8000
	Average	6333.333333
Bromoform	8/22/2011	1.3
	Maximum	1.3
	Average	1.3
Chloroform	8/12/2009	2.2
	8/3/2010	1.4
	8/22/2011	1.2
	Maximum	2.2
	Average	1.6
Cadmium	8/3/2010	2
	Maximum	2
	Average	2
Chromium	8/12/2009	1
	8/3/2010	1
	8/22/2011	1
	Maximum	1
	Average	1

Parameter	Date	Result
Copper	8/12/2009	13
	8/3/2010	11
	8/22/2011	8
	Maximum	13
	Average	10.66666667
Dibromochloromethane	8/22/2011	1
	Maximum	1
	Average	1
Diethyl Phthalate	8/3/2010	12.02
	Maximum	12.02
	Average	12.02
Selenium	8/12/2009	11
	8/3/2010	8
	8/22/2011	8
	Maximum	11
	Average	9
Toluene	8/12/2009	1.3
	Maximum	1.3
	Average	1.3
TSS	8/12/2009	9000
	8/3/2010	13000
	8/22/2011	5000
	Maximum	13000
	Average	9000
Zinc	8/22/2011	22
	Maximum	22
	Average	22

ATTACHMENT A-6

Comparison of Allowable Limits with Discharge Monitoring Report Data and State User Fee Data

Facility Name: *Newport WPCP*
RIPDES Permit #: *RI0100293*
Outfall #: *001A*

NOTE: METALS LIMITS ARE TOTAL METALS

Parameter	CAS #	Concentration Limits (ug/L) Based on WQ Criteria		Ave UFP Data (ug/L) 1/93 - 4/98		Ave. DMR Data (ug/L) 1/06-12/10		Potential Permit Limits (ug/L)		Reasonable Potential (y/n)
		Daily Max	Monthly Ave	Max	Ave	Daily Max	Monthly Ave	Daily Max	Monthly Ave	
PRIORITY POLLUTANTS										
TOXIC METALS AND CYANIDE										
ANTIMONY	7440360	No Criteria	39936.00	---	---	---	---	---	39936.00	no
ARSENIC (limits are total recoverable)	7440382	3643.20	87.36	4	3.67	---	---	3643.2	87.36	no
ASBESTOS	1332214	No Criteria	No Criteria	---	---	---	---	---	---	no
BERYLLIUM	7440417	No Criteria	No Criteria	---	---	---	---	---	---	no
CADMIUM (limits are total recoverable)	7440439	2388.05	618.77	2	2	---	---	2388.046781	618.7699195	no
CHROMIUM III (limits are total recoverable)	16065831	No Criteria	No Criteria	---	---	---	---	---	---	no
CHROMIUM VI (limits are total recoverable)	18540299	65788.34	3520.22	1	1	---	---	65788.34391	3520.219436	no
COPPER (limits are total recoverable)	7440508	291.60	200.69	13	10.67	---	---	291.6042169	200.6948193	no
CYANIDE	57125	52.80	52.80	---	---	---	---	52.8	52.8	no
LEAD (limits are total recoverable)	7439921	13113.58	594.19	---	---	---	---	13113.57518	594.1934805	no
MERCURY (limits are total recoverable)	7439976	111.81	9.36	---	---	---	---	111.8117647	9.36	no
NICKEL (limits are total recoverable)	7440020	4363.85	491.25	---	---	---	---	4363.851515	491.2478788	no
SELENIUM (limits are total recoverable)	7782492	15342.69	4439.28	11	9	---	---	15342.68537	4439.278557	no
SILVER (limits are total recoverable)	7440224	132.41	No Criteria	---	---	---	---	132.4094118	---	no
THALLIUM	7440280	No Criteria	29.33	---	---	---	---	---	29.328	no
ZINC (limits are total recoverable)	7440666	5023.26	5023.26	22	22	---	---	5023.255814	5023.255814	no
VOLATILE ORGANIC COMPOUNDS										
ACROLEIN	107028	No Criteria	18096.00	---	---	---	---	---	18096	no
ACRYLONITRILE	107131	No Criteria	156.00	---	---	---	---	---	156	no
BENZENE	71432	No Criteria	31824.00	---	---	---	---	---	31824	no
BROMOFORM	75252	No Criteria	87360.00	1.3	1.3	---	---	---	87360	no
CARBON TETRACHLORIDE	56235	No Criteria	998.40	---	---	---	---	---	998.4	no
CHLOROBENZENE	108907	No Criteria	99840.00	---	---	---	---	---	99840	no
CHLORODIBROMOMETHANE	124481	No Criteria	8112.00	1	1	---	---	---	8112	no
CHLOROFORM	67663	No Criteria	293280.00	2.2	1.6	---	---	---	293280	no
DICHLOROBROMOMETHANE	75274	No Criteria	10608.00	---	---	---	---	---	10608	no
1,2DICHLOROETHANE	107062	No Criteria	23088.00	---	---	---	---	---	23088	no
1,1DICHLOROETHYLENE	75354	No Criteria	443040.00	---	---	---	---	---	443040	no
1,2DICHLOROPROPANE	78875	No Criteria	9360.00	---	---	---	---	---	9360	no
1,3DICHLOROPROPYLENE	542756	No Criteria	1310.40	---	---	---	---	---	1310.4	no
ETHYLBENZENE	100414	No Criteria	131040.00	---	---	---	---	---	131040	no
BROMOMETHANE (methyl bromide)	74839	No Criteria	93600.00	---	---	---	---	---	93600	no

Facility Name: *Newport WPCP*

RIPDES Permit #: *RI0100293*

Outfall #: *001A*

NOTE: METALS LIMITS ARE TOTAL METALS

Parameter	CAS #	Concentration Limits (ug/L) Based on WQ Criteria		Ave UFP Data (ug/L) 1/93 - 4/98		Ave. DMR Data (ug/L) 1/06-12/10		Potential Permit Limits (ug/L)		Reasonable Potential (y/n)
		Daily Max	Monthly Ave	Max	Ave	Daily Max	Monthly Ave	Daily Max	Monthly Ave	
CHLOROMETHANE (methyl chloride)	74873	No Criteria	No Criteria	---	---	---	---	---	---	no
METHYLENE CHLORIDE	75092	No Criteria	368160.00	---	---	---	---	---	368160	no
1,1,2,2TETRACHLOROETHANE	79345	No Criteria	2496.00	---	---	---	---	---	2496	no
TETRACHLOROETHYLENE	127184	No Criteria	2059.20	---	---	---	---	---	2059.2	no
TOLUENE	108883	No Criteria	936000.00	1.3	1.3	---	---	---	936000	no
1,2TRANSDICHLOROETHYLENE	156605	No Criteria	624000.00	---	---	---	---	---	624000	no
1,1,1TRICHLOROETHANE	71556	No Criteria	No Criteria	---	---	---	---	---	---	no
1,1,2TRICHLOROETHANE	79005	No Criteria	9984.00	---	---	---	---	---	9984	no
TRICHLOROETHYLENE	79016	No Criteria	18720.00	---	---	---	---	---	18720	no
VINYL CHLORIDE	75014	No Criteria	149.76	---	---	---	---	---	149.76	no
ACID ORGANIC COMPOUNDS										
2CHLOROPHENOL	95578	No Criteria	9360.00	---	---	---	---	---	9360	no
2,4DICHLOROPHENOL	120832	No Criteria	18096.00	---	---	---	---	---	18096	no
2,4DIMETHYLPHENOL	105679	No Criteria	53040.00	---	---	---	---	---	53040	no
4,6DINITRO2METHYL PHENOL	534521	No Criteria	17472.00	---	---	---	---	---	17472	no
2,4DINITROPHENOL	51285	No Criteria	330720.00	---	---	---	---	---	330720	no
4NITROPHENOL	88755	No Criteria	No Criteria	---	---	---	---	---	---	no
PENTACHLOROPHENOL	87865	686.40	492.96	---	---	---	---	686.4	492.96	no
PHENOL	108952	No Criteria	106080000.00	---	---	---	---	---	106080000	no
2,4,6TRICHLOROPHENOL	88062	No Criteria	1497.60	---	---	---	---	---	1497.6	no
BASE NEUTRAL COMPOUNDS										
ACENAPHTHENE	83329	No Criteria	61776.00	---	---	---	---	---	61776	no
ANTHRACENE	120127	No Criteria	2496000.00	---	---	---	---	---	2496000	no
BENZIDINE	92875	No Criteria	0.12	---	---	---	---	---	0.1248	no
POLYCYCLIC AROMATIC HYDROCARBONS		No Criteria	11.23	---	---	---	---	---	11.232	no
BIS(2CHLOROETHYL)ETHER	111444	No Criteria	330.72	---	---	---	---	---	330.72	no
BIS(2CHLOROISOPROPYL)ETHER	108601	No Criteria	4056000.00	---	---	---	---	---	4056000	no
BIS(2ETHYLHEXYL)PHTHALATE	117817	No Criteria	1372.80	---	---	---	---	---	1372.8	no
BUTYL BENZYL PHTHALATE	85687	No Criteria	118560.00	---	---	---	---	---	118560	no
2CHLORONAPHTHALENE	91587	No Criteria	99840.00	---	---	---	---	---	99840	no
1,2DICHLOROBENZENE	95501	No Criteria	81120.00	---	---	---	---	---	81120	no
1,3DICHLOROBENZENE	541731	No Criteria	59904.00	---	---	---	---	---	59904	no
1,4DICHLOROBENZENE	106467	No Criteria	11856.00	---	---	---	---	---	11856	no
3,3DICHLOROBENZIDENE	91941	No Criteria	17.47	---	---	---	---	---	17.472	no

Facility Name: *Newport WPCP*
RIPDES Permit #: *RI0100293*
Outfall #: *001A*

NOTE: METALS LIMITS ARE TOTAL METALS

Parameter	CAS #	Concentration Limits (ug/L) Based on WQ Criteria		Ave UFP Data (ug/L) 1/93 - 4/98		Ave. DMR Data (ug/L) 1/06-12/10		Potential Permit Limits (ug/L)		Reasonable Potential
		Daily Max	Monthly Ave	Max	Ave	Daily Max	Monthly Ave	Daily Max	Monthly Ave	(y/n)
DIETHYL PHTHALATE	84662	No Criteria	2745600.00	12.02	12.02	---	---	---	2745600	no
DIMETHYL PHTHALATE	131113	No Criteria	68640000.00	---	---	---	---	---	68640000	no
DInBUTYL PHTHALATE	84742	No Criteria	280800.00	---	---	---	---	---	280800	no
2,4DINITROTOLUENE	121142	No Criteria	2121.60	---	---	---	---	---	2121.6	no
1,2DIPHENYLHYDRAZINE	122667	No Criteria	124.80	---	---	---	---	---	124.8	no
FLUORANTHENE	206440	No Criteria	8736.00	---	---	---	---	---	8736	no
FLUORENE	86737	No Criteria	330720.00	---	---	---	---	---	330720	no
HEXACHLOROBENZENE	118741	No Criteria	0.18	---	---	---	---	---	0.18096	no
HEXACHLOROBUTADIENE	87683	No Criteria	11232.00	---	---	---	---	---	11232	no
HEXACHLOROCYCLOPENTADIENE	77474	No Criteria	68640.00	---	---	---	---	---	68640	no
HEXACHLOROETHANE	67721	No Criteria	2059.20	---	---	---	---	---	2059.2	no
ISOPHORONE	78591	No Criteria	599040.00	---	---	---	---	---	599040	no
NAPHTHALENE	91203	No Criteria	No Criteria	---	---	---	---	---	---	no
NITROBENZENE	98953	No Criteria	43056.00	---	---	---	---	---	43056	no
NNITROSODIMETHYLAMINE	62759	No Criteria	1872.00	---	---	---	---	---	1872	no
NNITROSODINPROPYLAMINE	621647	No Criteria	318.24	---	---	---	---	---	318.24	no
NNITROSODIPHENYLAMINE	86306	No Criteria	3744.00	---	---	---	---	---	3744	no
PYRENE	129000	No Criteria	249600.00	---	---	---	---	---	249600	no
1,2,4trichlorobenzene	120821	No Criteria	4368.00	---	---	---	---	---	4368	no
PESTICIDES/PCBs										
ALDRIN	309002	68.64	0.03	---	---	---	---	68.64	0.0312	no
Alpha BHC	319846	No Criteria	3.06	---	---	---	---	---	3.0576	no
Beta BHC	319857	No Criteria	10.61	---	---	---	---	---	10.608	no
Gamma BHC (Lindane)	58899	8.45	8.45	---	---	---	---	8.448	8.448	no
CHLORDANE	57749	4.75	0.25	---	---	---	---	4.752	0.2496	no
4,4DDT	50293	6.86	0.06	---	---	---	---	6.864	0.0624	no
4,4DDE	72559	No Criteria	0.14	---	---	---	---	---	0.13728	no
4,4DDD	72548	No Criteria	0.19	---	---	---	---	---	0.19344	no
DIELDRIN	60571	37.49	0.03	---	---	---	---	37.488	0.033696	no
ENDOSULFAN (alpha)	959988	1.80	0.54	---	---	---	---	1.7952	0.54288	no
ENDOSULFAN (beta)	33213659	1.80	0.54	---	---	---	---	1.7952	0.54288	no
ENDOSULFAN (sulfate)	1031078	No Criteria	5553.60	---	---	---	---	---	5553.6	no
ENDRIN	72208	1.95	0.14	---	---	---	---	1.9536	0.14352	no
ENDRIN ALDEHYDE	7421934	No Criteria	18.72	---	---	---	---	---	18.72	no

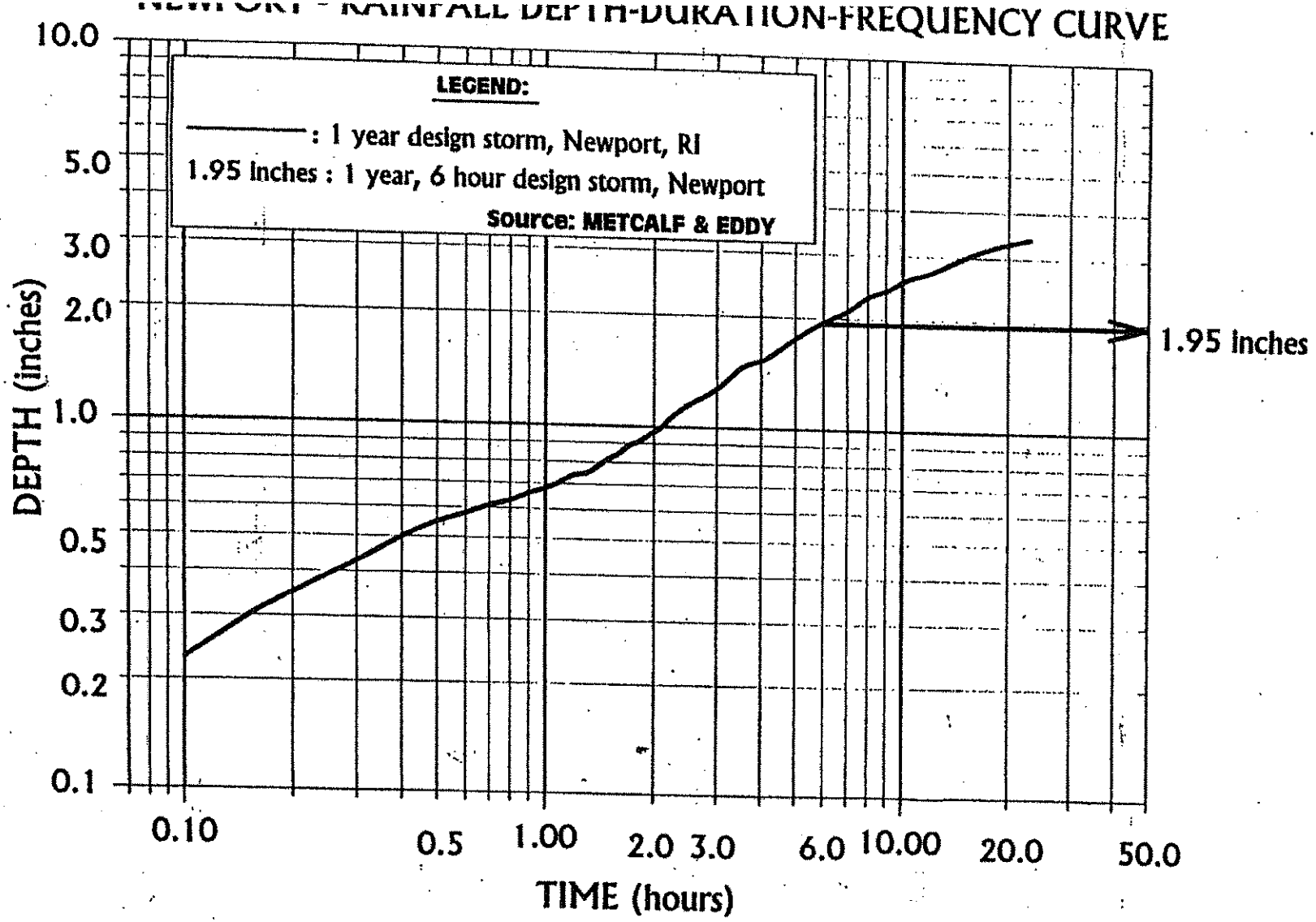
Facility Name: *Newport WPCP*
RIPDES Permit #: *RI0100293*
Outfall #: *001A*

NOTE: METALS LIMITS ARE TOTAL METALS

Parameter	CAS #	Concentration Limits (ug/L) Based on WQ Criteria		Ave UFP Data (ug/L) 1/93 - 4/98		Ave. DMR Data (ug/L) 1/06-12/10		Potential Permit Limits (ug/L)		Reasonable Potential (y/n)
		Daily Max	Monthly Ave	Max	Ave	Daily Max	Monthly Ave	Daily Max	Monthly Ave	
HEPTACHLOR	76448	2.80	0.05	---	---	---	---	2.7984	0.049296	no
HEPTACHLOR EPOXIDE	1024573	2.80	0.02	---	---	---	---	2.7984	0.024336	no
POLYCHLORINATED BIPHENYLS3	1336363	No Criteria	0.04	---	---	---	---	---	0.039936	no
2,3,7,8TCDD (Dioxin)	1746016	No Criteria	0.00	---	---	---	---	---	3.1824E-06	no
TOXAPHENE	8001352	11.09	0.01	---	---	---	---	11.088	0.01248	no
TRIBUTYLTIN		22.18	0.46	---	---	---	---	22.176	0.46176	no
NON PRIORITY POLLUTANTS:										
OTHER SUBSTANCES										
ALUMINUM (limits are total recoverable)	7429905	No Criteria	No Criteria	---	---	---	---	---	---	no
AMMONIA (winter)	7664417	911433.60	159007.68	---	---	---	---	911433.6	159007.68	no
AMMONIA (summer)		316831.68	56422.08	---	---	---	---	316831.68	56422.08	no
4BROMOPHENYL PHENYL ETHER	16887006	No Criteria	No Criteria	---	---	---	---	---	---	no
CHLORIDE	7782505	No Criteria	No Criteria	---	---	---	---	---	---	no
CHLORINE		858.00	585.00	---	---	468.3	179.9	858	585	yes
4CHLORO2METHYLPHENOL		No Criteria	No Criteria	---	---	---	---	---	---	no
1CHLORONAPHTHALENE	106489	No Criteria	No Criteria	---	---	---	---	---	---	no
4CHLOROPHENOL		No Criteria	No Criteria	---	---	---	---	---	---	no
2,4DICHLORO6METHYLPHENOL		No Criteria	No Criteria	---	---	---	---	---	---	no
1,1DICHLOROPROPANE	142289	No Criteria	No Criteria	---	---	---	---	---	---	no
1,3DICHLOROPROPANE		No Criteria	No Criteria	---	---	---	---	---	---	no
2,3DINITROTOLUENE		No Criteria	No Criteria	---	---	---	---	---	---	no
2,4DINITRO6METHYL PHENOL	7439896	No Criteria	No Criteria	---	---	---	---	---	---	no
IRON	608935	No Criteria	No Criteria	---	---	---	---	---	---	no
pentachlorobenzene		No Criteria	No Criteria	---	---	---	---	---	---	no
PENTACHLOROETHANE		No Criteria	No Criteria	---	---	---	---	---	---	no
1,2,3,5tetrachlorobenzene	630206	No Criteria	No Criteria	---	---	---	---	---	---	no
1,1,1,2TETRACHLOROETHANE	58902	No Criteria	No Criteria	---	---	---	---	---	---	no
2,3,4,6TETRACHLOROPHENOL		No Criteria	No Criteria	---	---	---	---	---	---	no
2,3,5,6TETRACHLOROPHENOL	95954	No Criteria	No Criteria	---	---	---	---	---	---	no
2,4,5TRICHLOROPHENOL	88062	No Criteria	No Criteria	---	---	---	---	---	---	no
2,4,6TRINITROPHENOL	1330207	No Criteria	No Criteria	---	---	---	---	---	---	no
XYLENE		No Criteria	No Criteria	---	---	---	---	---	---	no

ATTACHMENT A-7

City of Newport Rainfall Depth-Duration-Frequency Curve



One year rainfall depth-duration-frequency relationship for Newport, Rhode Island. Flows generated by a rain event which is more frequently occurring than the Newport one year, six hour storm and have a total depth less than 1.95 inches are subject to the limitations and requirements contained in the RIPDES Permit. If when the depth and duration of a storm are plotted, the corresponding point on the graph falls below the one year design storm curve, then the storm is more frequently occurring.