California Regional Water Quality Control Board
Santa Ana Region

May 31, 2002

ITEM: *6

SUBJECT: Renewal of Waste Discharge Requirements for City of Tustin's 17th Street Desalter -- Order No. R8-2002-0005, NPDES Permit No. CA8000305

DISCUSSION:

The City of Tustin owns and operates the 17th Street Desalter Facility. The desalter is a water treatment facility that consists of a 2 million gallon per day (mgd) reverse osmosis process. Up to 1.2 mgd of extracted groundwater may be blended with the desalter product water. Discharges from the facility are regulated by Order No. 93-43, NPDES No. CA8000305, which was adopted by the Regional Board on June 4, 1993. Order No. 93-43 expired on June 1, 1998.

The desalter was constructed to treat groundwater pumped from the City's three water supply wells (well number 1, 2, and 3) [1] which have high concentrations of total dissolved solids and nitrates. Two million gallons per day (mgd) of reverse osmosis-treated groundwater may be combined with 1.2 mgd of extracted groundwater to meet approximately 3.2 mgd of the City's water supply demand. The project was designed to help restore the quality of the groundwater subbasin and to create a reliable water supply for domestic, industrial, and municipal uses throughout the City. Brine wastes from the desalter are discharged to the sanitary sewer.

During start-up and shut-down operations, and during any stoppages of the treatment system, the pumped well water bypasses the plant and is purged. The purged water is discharged to the El Modena-Irvine Channel, which is tributary to Peters Canyon Wash, San Diego Creek (Reach 1) and Newport Bay. Order No. 93-43 regulates these discharges.

The beneficial uses of Peters Canyon Wash and San Diego Creek include water contact recreation, non-contact water recreation, warm water aquatic habitat and wildlife habitat. The beneficial uses of Newport Bay include commercial and sport fishing, support of biological habitats of special significance, support of wildlife habitats, support of rare, threatened, or endangered species habitat, support of habitats for spawning, reproduction, and development of fish and wildlife, marine habitat, shellfish harvesting, and support of estuarine habitat.

Nutrient loading to the Bay, particularly from the San Diego Creek watershed, contributes to seasonal algal blooms that create a recreational and aesthetic nuisance. These algal blooms may also adversely affect wildlife. To address this issue, on April 17, 1998, the Regional Board adopted Resolution No. 98-9 amending the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) to include a nutrient Total Maximum Daily Load (TMDL) for the Newport Bay/San Diego Creek Watershed. The nutrient TMDL was amended by Resolution No. 98-100 on October 9, 1998. Thereafter, it was approved by the State Water Resources Control Board,

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[1] *Both Well 1 and Well 2 are located on the Desalter grounds no more than 70 feet from one another. The third well ("Newport Well") is located on Newport Avenue near Warren Avenue in Tustin.*

Office of Administrative Law and the US EPA. The goal of the TMDL is for the reduction of nitrogen and phosphorus loading by 50% by 2012. Appropriate allocations of the total allowable load were assigned to various dischargers throughout the watershed. The discharge from the desalter was not specifically identified. This discharge is considered to be included in the load allocation assigned to "Undefined sources", which include rising groundwater and discharges resulting from groundwater cleanup projects.

The nutrient TMDL specifies load allocations for total nitrogen inputs from "Undefined Sources" to the Newport Bay watershed and to San Diego Creek, Reach 1 (downstream of Jeffrey Road) during non-storm conditions. "Undefined Sources" include discharges from the desalter facility (as well as rising groundwater, atmospheric deposition, dewatering discharges, and other sources).[2] These load allocations require reductions of total nitrogen inputs from these Undefined Sources over time. For the watershed, the TMDL requires a 30% reduction in summer (April – September) inputs by 2002, and a 50% reduction in summer inputs by 2007. A 50% reduction in wintertime inputs (October – March) is to be achieved by 2012. The TMDL stipulates that compliance with all the requisite reductions is to be achieved no later than the dates specified, and that the Regional Board may require earlier compliance where it is feasible and reasonable. However, it does appear feasible and reasonable to require compliance with the 50% reduction in nitrogen inputs from the desalter facility discharges to the watershed earlier than 2007/2012. The discharger could implement site-specific measures, e.g., additional treatment systems, to achieve the required total nitrogen reductions. This Order requires the discharger to submit a plan for approval by the Regional Board's Executive Officer that identifies the method(s) and schedule by which the discharger proposes to achieve a 50% reduction in the total nitrogen mass of the discharges. The schedule is to reflect the shortest practical time necessary to achieve the 50 % reduction, but in no case extend beyond January 1, 2007. The load allocations that the discharger is required to meet are shown on the following table[3]:

Season	Total Mass of Nitrogen Discharged Each Season of the Year (lbs)
Summer (April 1st – September 30th)	73.5
Winter (October 1st- March 31st)	60.5

The requirements in the proposed Order implement the Basin Plan, including the Nutrient TMDL for the Newport Bay/San Diego Creek watershed, and should assure the protection of beneficial uses.

The location of the desalter is shown in "Attachment A".

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2 *Load allocations for both total nitrogen and phosphorus are specified in the TMDL. The phosphorus load allocations are assigned to open space and agricultural areas. No phosphorus load allocations are specified for groundwater cleanup discharges since these discharges are not expected to include phosphorus.*

3 *The load allocations are 50% of the median of nitrogen mass discharged in 1998-2001, as shown on the waste discharge summary report submitted by the discharger.*

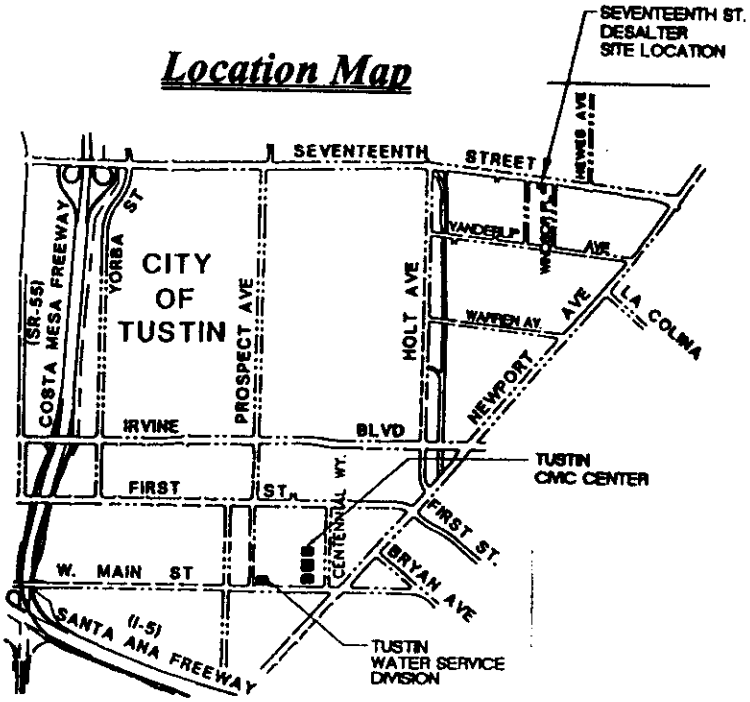
RECOMMENDATION:

Adopt Order No. R8-2002-0005, NPDES No. CA8000305, as presented.

Comments were solicited from the following agencies:

US EPA Permits Issuance Section (WTR-5) - Terry Oda
U.S. Fish and Wildlife Service, Carlsbad
State Water Resources Control Board, Office of the Chief Counsel – Jorge Leon
State Water Resources Control Board, DWQ – Jim Maughan
State Department of Water Resources - Glendale
State Department of Health Services, Santa Ana - Frank Hamamura
State Department of Fish and Game, Long Beach - Terri Dickerson
Orange Co.Water District, Fountain Valley - Nira Yamachika
Orange Co. Dept. Health Services, Drinking Water Operations, Santa Ana - Nabil Saba
Orange Co. Public Facilities and Resources, Flood Control - Herb Nakasone
City of Tustin – City Manager
Defend the Bay - Bob Caustin
Orange County Coastkeeper – Garry Brown
Lawyers for Clean Water, San Francisco

Location Map



CITY OF TUSTIN

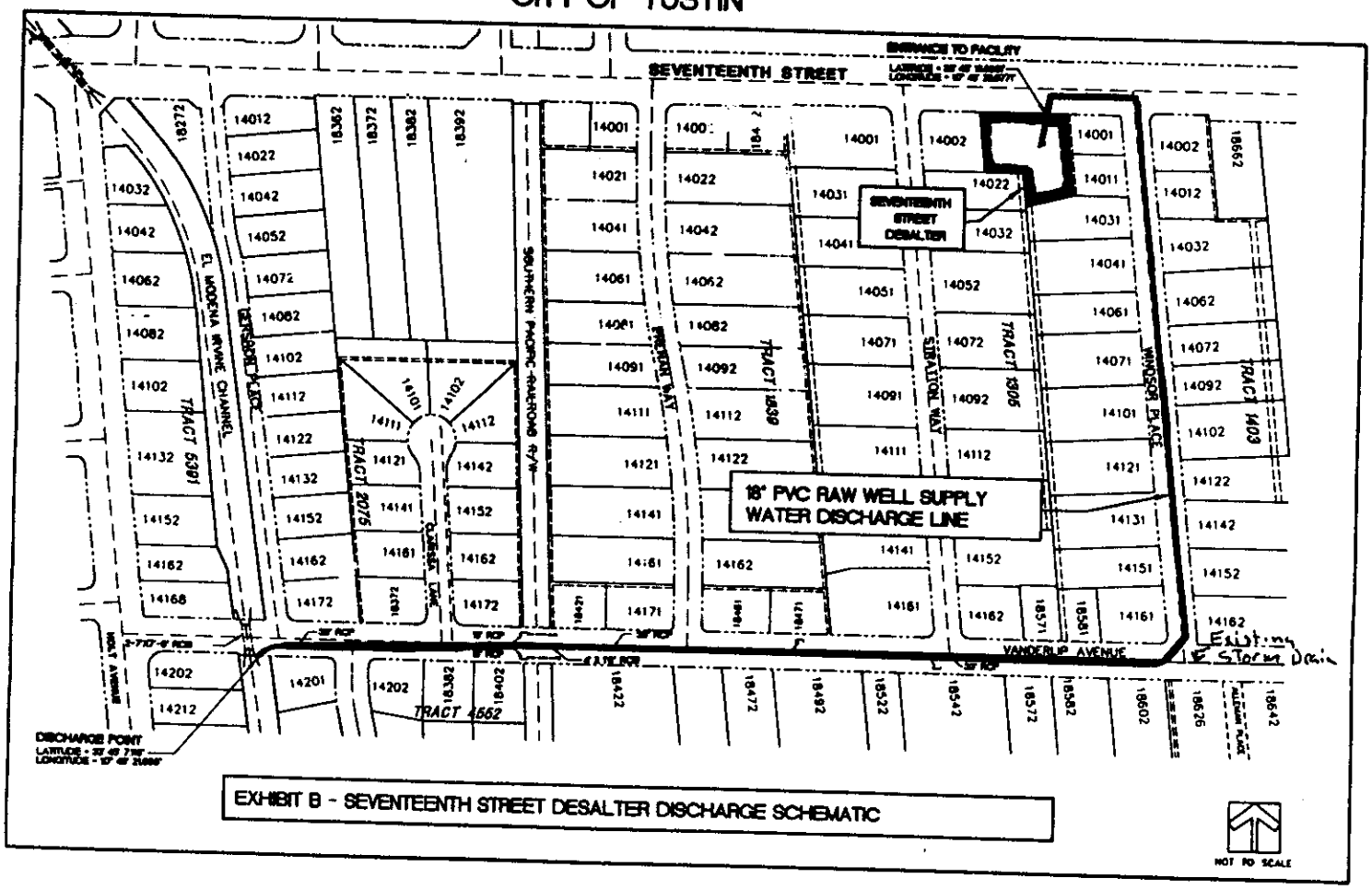


EXHIBIT B - SEVENTEENTH STREET DESALTER DISCHARGE SCHEMATIC

California Regional Water Quality Control Board
Santa Ana Region

Order No. R8-2002-0005
NPDES No. CA8000305

Waste Discharge Requirements
for

17th Street Desalter Facility
City of Tustin

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Board), finds that:

1. On February 17, 1998, the City of Tustin Public Works Department (hereinafter discharger) submitted a Report of Waste Discharge for renewal of a permit to discharge wastewater under the National Pollutant Discharge Elimination System (NPDES). The discharge from the facility is regulated under Order No. 93-43, which expired on June 1, 1998.

2. The City of Tustin owns and operates the 17th Street Desalter facility[1] located at 18602 17th Street within the City of Tustin. The facility is a water treatment plant that consists of a 2 million gallon per day (mgd) reverse osmosis process. Up to 1.2 mgd of extracted, untreated groundwater may be blended with the desalter product water. Groundwater that is pumped from three water supply wells is treated at the facility by reducing the high total dissolved solids and nitrogen concentration of the groundwater to an acceptable level for water supply. Approximately 3.2 million gallons per day (mgd) of potable water is produced from the facility.

3. During occasions of plant startup and plant shutdown, groundwater pumped for treatment at the facility bypasses the treatment system and is purged and discharged. Approximately 0.6 to 7 million gallons per year of raw well water is discharged to the El Modena-Irvine Channel. The monitoring reports indicate that, on average, there are fewer than 40 days per year in which bypass discharges occur, and that the average discharge is less than 60, 000 gallons per day and lasts for approximately 45 minutes. Monitoring data indicate that the average total nitrogen concentration of the discharges is 15.2 milligram per liter (mg/l).

4. A Water Quality Control Plan (Basin Plan) became effective on January 24, 1995. The Basin Plan identifies water quality objectives and beneficial uses for waters in the Santa Ana Region. The requirements contained in this Order are necessary to implement the Basin Plan.

5. The untreated well water is discharged to El Modena-Irvine Channel at Outfall 001 located at latitude N33°45' 7" and longitude W117°49' 21". The partly lined El Modena-Irvine Channel is tributary to Peters Canyon Channel. Peters Canyon Channel is tributary to San Diego Creek Reach 1, which is tributary to Upper Newport Bay. The beneficial uses of Upper Newport Bay include:

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[1] *The 17th Street Desalting Project was originally established by the Orange County Water District in 1991 to improve the water quality of the Santa Ana Forebay Groundwater Subbasin.*

a. Commercial and sport fishing,
b. Preservation of biological habitats of special significance,
c. Water contact recreation,
d. Non-contact water recreation,
e. Wildlife habitat,
f. Shellfish harvesting,
g. Spawning, reproduction, and development,
h. Rare, threatened, or endangered species,
i. Marine habitat, and
j. Estuarine habitat.

6. The facility and point of discharge overlie the Santa Ana Forebay Groundwater Subbasin, the beneficial uses of which include:

a. Municipal and domestic supply,
b. Agricultural supply,
c. Industrial service supply, and
d. Industrial process supply.

7. Nutrient loading to the Bay, particularly from the San Diego Creek watershed, contributes to seasonal algal blooms that create a recreational and aesthetic nuisance. These algal blooms may also adversely affect wildlife. To address this issue, on April 17, 1998, the Regional Board adopted Resolution No. 98-9 amending the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) to include a nutrient Total Maximum Daily Load (TMDL) for the Newport Bay/San Diego Creek Watershed. The nutrient TMDL was amended by Resolution No. 98-100 on October 9, 1998. Thereafter, it was approved by the State Water Resources Control Board, Office of Administrative Law and the US EPA. The goal of the TMDL is for the reduction of nitrogen and phosphorus loading by 50% by 2012. Appropriate allocations of the total allowable load were assigned to various dischargers throughout the watershed. The discharge from the desalter was not specifically identified. This discharge is considered to be included in the load allocation assigned to "Undefined sources", which include rising groundwater, atmospheric deposition, dewatering discharges, and other sources[2] and discharges resulting from operation of the desalter facility. These load allocations require reductions of total nitrogen inputs from these "Undefined Sources" over time.

[2] *Load allocations for both total nitrogen and phosphorus are specified in the TMDL. The phosphorus load allocations are assigned to open space and agricultural areas.*

8. For the watershed, the TMDL requires a 30% reduction in summer (April – September) nitrogen inputs by 2002, and a 50% reduction in summer inputs by 2007. A 50% reduction in wintertime inputs (October – March) is to be achieved by 2012. The TMDL stipulates that compliance with all the requisite reductions is to be achieved no later than the dates specified, and that the Regional Board may require earlier compliance where it is feasible and reasonable. It does appear feasible and reasonable to require compliance with the 50% reduction in nitrogen inputs from the desalter facility discharges to the watershed earlier than 2007/2012. The discharger could implement site-specific measures, e.g., additional treatment systems, to achieve the required total nitrogen reductions. This Order requires the discharger to submit a plan for approval by the Regional Board's Executive Officer that identifies the method(s) and schedule by which the discharger proposes to achieve a 50% reduction in the total nitrogen mass of the discharges. The schedule is to reflect the shortest practical time necessary to achieve the 50 % reduction, but in no case extend beyond January 1, 2007. The summary report submitted by the discharger for the year 1998 and 2001 shows winter and summer median discharges of 121 and 147 pounds of nitrogen, respectively. To achieve the requisite 50% reduction in these discharges, the load allocations that the discharger is required to meet are shown on the following table:

Season	Total Mass of Nitrogen Discharged Each Season of the Year (lbs)
Summer (April 1st – September 30th)	73.5
Winter (October 1st- March 31st)	60.5

9. On April 17, 1998, the Regional Board also adopted Resolution No. 98-69, amending the Basin Plan to include a TMDL for sediment in the Newport Bay/San Diego Creek Watershed. The sediment TMDL requires the implementation of Best Management Practices (BMPs) to control sediment to provide a reasonable assurance that water quality standards will be met. This sediment TMDL was amended by Resolution No. 98-101 on October 9, 1998 and has also been approved by the State Water Resources Control Board, Office of Administrative Law and the US EPA.

10. This Order implements relevant requirements and provisions of the nutrient and sediment TMDLs specified in Resolution Nos. 98-9 and 98-69 as amended by Resolution Nos. 98-100 and 98-101, respectively.

11. On May 18, 2000, the U.S. Environmental Protection Agency issued a final rule for the establishment of Numeric Criteria for Priority Toxic Pollutants necessary to fulfill the requirements of Section 303(c)(2)(B) of the Clean Water Act for the State of California. This rule is commonly referred to as the California Toxics Rule.

12. Federal Regulations require permits to include limitations for all pollutants that are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion of a water quality standard.

13. On March 2, 2000, the State Water Resources Control Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California. This Policy includes implementation provisions for the California Toxics Rule. The Policy specifies a methodology to determine if pollutants in the discharge are at a level that will cause, have the reasonable potential to cause, or contribute to an excursion of a water quality standard and delineates procedures to be used to calculate appropriate limits.

14. This Order implements relevant provisions of the California Toxics Rule and the State Board Policy. This Order requires the discharger to monitor once annually for priority pollutants and semi-annually for the presence of 17 congeners during the first (2002) and last year (2006) of this Order.

15. Effluent limitations and new source performance standards established pursuant to Section 301, 302, 303(d), 304, and 306 of the Clean Water Act (CWA) and amendments thereto are applicable to the discharge.

16. The Board has considered antidegradation pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, and finds that this discharge is consistent with those provisions. Discharges to surface waters in accordance with the terms of this Order will not result in the lowering of water quality. Operation of the desalter is expected to result in improvement of the quality of the groundwater basin over the long-term.

17. In accordance with California Water Code Section 13389, the issuance of waste discharge requirements for this discharge is exempt from those provisions of the California Environmental Quality Act contained in Chapter 3 (commencing with Section 21100), Division 13 of the Public Resources Code.

18. The Board has notified the discharger and other interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

19. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Divisions 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and the regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Specifications:

1. The discharge of untreated well water containing constituent concentrations in excess of the following limits is prohibited:

Constituent	Average Monthly Concentration (mg/l)
Total Suspended Solids (TSS)	75
Chlorine Residual	0.1

2. The total nitrogen mass discharged shall not exceed the following load allocation:

Season	Total Mass of Nitrogen Discharged Each Season of the Year (lbs)	
		By Year 2007
Summer (April 1st – September 30th)	147	73.5
Winter (October 1st- March 31st)	121	60.5

3. The discharge of any substances in concentrations toxic to animal or plant life is prohibited.

4. The pH of the discharge shall be at all times within 6.5 and 8.5 pH units.

B. Receiving Water Limitations: [3]

1. The discharge of wastes shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Board or State Board, as required by the Clean Water Act and regulations adopted thereunder.

2. The discharge shall not cause any of the following:

   a. Coloration of the receiving waters which causes a nuisance or adversely affects beneficial uses.

   b. Deposition of oil, grease, wax or other materials in the receiving waters in concentrations which result in a visible film or in coating objects in the water, or which cause a nuisance or affect beneficial uses.

   c. An increase in the amounts of suspended or settleable solids in the receiving waters which will cause a nuisance or adversely affect beneficial uses as a result of controllable water quality factors.

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[3] *Receiving water limitations are specific interpretations of water quality objectives from applicable water quality control plans. As such they are a required part of this Order. A receiving water condition not in conformance with any of these receiving water limitations, is not necessarily a violation of this Order. The Regional Board may require an investigation to determine the cause and culpability prior to asserting a violation has occurred, or requiring that corrective action be taken.*

d. Taste or odor producing substances in the receiving waters at concentrations which cause a nuisance or adversely affect beneficial uses.

e. The presence of radioactive materials in the receiving waters in concentrations which are deleterious to human, plant or animal life.

f. The depletion of the dissolved oxygen concentration below 5.0 mg/l.

g. The temperature of the receiving waters to be raised above 90°F (32°C) during the period of June through October, or above 78°F (26°C) during the rest of the year.

h. The concentration of pollutants in the water column, sediments, or biota to adversely affect the beneficial uses of the receiving water. The discharge shall not result in the degradation of inland surface water communities and populations, including vertebrate, invertebrate, and plant species.

3. Pollutants not specifically mentioned and limited in this Order shall not be discharged at levels that will bioaccumulate in aquatic resources to levels which are harmful to human health.

C. Toxicity Requirements

1. The discharge shall not result in acute toxicity in ambient receiving waters. Discharges from the facility shall be deemed acutely toxic when the toxicity of 100% effluent as required in Monitoring and Reporting Program No. R8-2002-0005 results in failure of any single test. The pass-fail test method[4] specified in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, fourth Edition, EPA/600/4-90/027F, August 1993" shall be used.

D. Provisions

1. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the CWA, or amendments thereto, that shall become effective 10 days after the date of adoption, provided the Regional Administrator of the EPA has no objection. If the Regional Administrator objects to its issuance, this Order shall not serve as an NPDES permit until such objection is withdrawn.

2. Neither the treatment nor discharge of waste shall create, or threaten to create, a nuisance or pollution as defined by Section 13050 of the California Water Code.

3. Order No. 93-43 is hereby rescinded.

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4 *The pass fail survival limits for acute toxicity test require tests consisting of a control and a single concentration of effluent with a pass/fail endpoint. Control survival must be 90% or greater for an acceptable test. The test "passes" if survival in the control and effluent concentration equals or exceeds 90%. The test "fails" if survival in the effluent is less than 90%, and is significantly different from control survival (which must be 90% or greater), as determined by hypothesis testing.*

4. This Order expires on May 31, 2007 and the discharger must file a Report of Waste Discharge in accordance with Title 23, Division 3, Chapter 9 of the California Code of Regulations not later than 180 days in advance of this expiration date. The Report of Waste Discharge shall serve as the application for issuance of new waste discharge requirements.

5. By August 1, 2002, the discharger shall submit a plan for approval by the Regional Board's Executive Officer that identifies the method(s) and schedule by which the discharger proposes to achieve a 50% reduction in the total nitrogen of their discharges. The schedule is to reflect the shortest practicable time necessary to achieve the 50 % reduction but in no case extend beyond January 1, 2007. The required 50% reduction is shown on the following table:

Season	Total Mass of Nitrogen Discharged Each Season of the Year (lbs)
	By Year 2007
Summer (April 1st – September 30th)	73.5
Winter (October 1st- March 31st)	60.5

6. Compliance with average monthly discharge limitations specified under Discharge Specifications A.1. shall be determined from the average of the analytical results of all samples collected during a calendar month.

7. Compliance with the total nitrogen mass load allocation shall be determined at the end of each season.

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

9. This Order is not transferable to any person except after notice to and approval by the Board. The Board may require modification, or revocation and reissuance, of this Order to change the name of the discharger and incorporate such other requirements as may be necessary under the Clean Water Act.

10. The discharger shall comply with Monitoring and Reporting Program No. R8-2002-0005. This monitoring and reporting program may be modified by the Executive Officer at any time during the term of this Order, and may include an increase in the number of parameters to be monitored, the frequency of the monitoring or the number and size of samples to be collected. Any such modifications may be reduced back to the levels specified in the original monitoring and reporting program at the discretion of the Executive Officer.

11. The discharger shall notify the Executive Officer or designee, at least 24 hours prior to a discharge event.

12. The discharger shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.

13. The discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided to the Executive Officer (909-782-4130) and the Office of Emergency Services (1-800-852-7550), if appropriate, as soon as the discharger becomes aware of the circumstances. A written report shall be submitted within five days and shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates/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 Executive Officer or the Executive Officer's designee may waive the above-required written report on a case-by-case basis.

14. The discharger shall file with the Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location, or volume of the discharge. The discharger shall give advance notice to the Board of any planned changes in the permitted facility or activity that may result in noncompliance with these waste discharge requirements.

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

16. The provisions and requirements of this Order do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from liabilities under federal, state, or local laws, nor guarantee the discharger a capacity right in the receiving waters.

17. Except for data determined to be confidential under Section 308 of the Clean Water Act, all reports prepared in accordance with terms of this Order shall be available for public inspection at the offices of the Regional Board and the Regional Administrator of the EPA. As required by the Clean Water Act, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act and Section 13387 of the California Water Code.

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

19. In the event of any change in control of the waste discharge facility presently controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Board.

20. The Regional Board, EPA, and other authorized representatives shall be allowed

    a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;

    b. Access to copy any records that are kept under the conditions of this Order;

    c. To inspect any facility, equipment (including monitoring and control), practices, or operations regulated or required under this Order; and

    d. To photograph, sample, and monitor for the purpose of assuring compliance with this Order, or as otherwise authorized by the Clean Water Act.

E. Permit Reopening, Revision, Revocation, and Reissuance:

1. This Order may be reopened to address any changes in State or federal plans, policies or regulations which would affect the quality requirements for the discharges.

2. This Order may be modified, revoked and reissued, or terminated for cause. No permit condition will be stayed by the filing of a request by the discharger for modification, revocation and reissuance, or termination of this Order, or by a notification of anticipated noncompliance or planned changes.

3. This Order may be reopened to include effluent limitations for pollutants determined to be present in significant amounts in the discharge through any monitoring program and in the receiving water.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on May 31, 2002.

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Gerard J. Thibeault
Executive Officer

California Regional Water Quality Control Board
Santa Ana Region

Monitoring and Reporting Program No. R8-2002-0005
for

17th Street Desalter Facility
City of Tustin

A. Monitoring Guidelines

Monitoring shall be in accordance with the following:

1. All sampling and sample preservation shall be in accordance with the current edition[1] of "*Standard Methods for the Examination of Water and Wastewater*" (American Public Health Association).

2. All laboratory analyses shall be performed in accordance with test procedures under 40 CFR 136 (latest edition)[1] "*Guidelines Establishing Test Procedures for the Analysis of Pollutants*," promulgated by the United States Environmental Protection Agency (EPA), unless otherwise specified in this Monitoring and Reporting Program (M&RP). In addition, the Regional Board and/or EPA, at their discretion, may specify test methods which are more sensitive than those specified in 40 CFR 136.

3. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services or EPA or at laboratories approved by the Regional Board's Executive Officer.

4. The discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. Duplicate chemical analyses must be conducted on a minimum of ten percent (10%) of the samples, or at least one sample per month, whichever is greater. A similar frequency shall be maintained for the analysis of spiked samples. When requested by the Board or the EPA, the discharger will participate in the NPDES discharge monitoring report QA performance study and must have a success rate equal to or greater than 80%.

5. For effluent monitoring of priority pollutants:

   a. Until December 1, 2002, the discharger shall require its testing laboratory analyzing priority pollutants to quantify each constituent at least down to the Practical Quantitation Levels[2] specified in Attachment "A". Any internal quality control data associated with the sample must be reported when requested by the Executive Officer. The Regional Board will reject the quantified laboratory data if quality control data is unavailable or unacceptable.

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[1] *Current or latest edition refers to those editions in effect when this Order is adopted.*

[2] *PQL is the lowest concentration of a substance which can be determined within ± 20 percent of the true concentration by 75 percent of the analytical laboratories tested in a performance evaluation study. Alternatively, if performance data are not available, the PQL is the method detection limit (MDL) x 5 for carcinogens and MDL x 10 for noncarcinogens.*

b. By December 1, 2002, the discharger shall require its testing laboratory to calibrate the analytical system down to the minimum levels (MLs)[3] specified in Attachment "B" for priority pollutants with effluent limitations in this Order, unless an alternative minimum level is approved by the Regional Board's Executive Officer. The December 1, 2002 date may be extended by the Executive Officer provided that good cause is demonstrated by the discharger and provided that any such extension is as short as possible. Any internal quality control data associated with the sample must be reported when requested by the Executive Officer. The Regional Board will reject the quantified laboratory data if quality control data is unavailable or unacceptable.

c. The discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

1) For monitoring data submitted through December 1, 2002:

(a) Sample results greater than or equal to the PQL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

(b) Sample results less than the PQL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or "DNQ." The estimated chemical concentration of the sample shall also be reported.

(c) Sample results not detected above the laboratory's MDL shall be reported as "not detected" or "ND."

2) For monitoring data submitted after December 1, 2002[4:]

(a) Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

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[3] *Minimum level is the concentration at which the entire analytical system must give a recognizable signal and acceptable point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.*

[4] *If an extension from this date is authorized by the Executive Officer for one or more constituents, then the requirements specified in paragraph A.5.c.1) above, shall apply to that constituent(s) until the extended date specified by the Executive Officer. After that date, the requirements specified in paragraph A.5.c.2) shall apply.*

(b) Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as Not Quantified," or "DNQ." The estimated chemical concentration of the sample shall also be reported.

(c) Sample results not detected above the laboratory's MDL shall be reported as "not detected" or "ND."

d. The discharger shall submit to the Regional Board reports necessary to determine compliance with effluent limitations for priority pollutants in this Order and shall follow the chemical nomenclature and sequential order of constituents shown in Attachment "C" – Priority Pollutant Lists. The discharger shall report with each sample result:

1) The PQL or ML achieved by the testing laboratory; and

2) The laboratory's current Method Detection Limit (MDL) as determined by the procedure found in 40 CFR 136 (revised as of May 14, 1999).

6. The monitoring frequency for those priority pollutants that are detected during the required annual effluent monitoring at a concentration greater than fifty percent of the most stringent applicable receiving water objective (freshwater or human health (consumption of organisms only) as specified for that pollutant in 40 CFR 131.38[5]) shall be accelerated to quarterly for one year following detection. To return to the original monitoring frequency specified, the discharger shall request and receive approval from the Regional Board's Executive Officer or designee.

7. For non-priority pollutants monitoring, all analytical data shall be reported with identification of practical quantitation levels and with method detection limits, as determined by the procedure found in 40 CFR 136 (revised as of May 14, 1999).

8. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. The flow measurement system shall be calibrated at least once per year, or even more frequently, to ensure continued accuracy.

9. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. A sampling station shall be established at the point of discharge, where a representative sample may be obtained prior to mixing with the receiving waters.

10. Whenever the discharger monitors any pollutant more frequently than is required by this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharge monitoring report specified by the Executive Officer.

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[5] *See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations.*

11. The discharger shall multiply each measured or estimated congener concentration by its respective toxic equivalency factor (TEF) as shown below and report the sum of these values. The discharger shall use the U.S. EPA approved test method 1613 for dioxins and furans.

Toxic Equivalency Factors for 2,3,7, 8-TCDD Equivalents	
Congener	TEF
2,3,7,8-TetraCDD	1
1,2,3,7,8-PentaCDD	1.0
1,2,3,4,7,8-HexaCDD	0.1
1,2,3,6,7,8-HexaCDD	0.1
1,2,3,7,8,9-HexaCDD	0.1
1,2,3,4,6,7,8-HeptaCDD	0.01
OctaCDD	0.0001
2,3,7,8-TetraCDF	0.1
1,2,3,7,8-PentaCDF	0.05
2,3,4,7,8-PentaCDF	0.5
1,2,3,4,7,8-HexaCDF	0.1
1,2,3,6,7,8-HexaCDF	0.1
1,2,3,7,8,9-HexaCDF	0.1
2,3,4,6,7,8-HexaCDF	0.1
1,2,3,4,6,7,8-HeptaCDF	0.01
1,2,3,4,7,8,9-HeptaCDF	0.01
OctaCDF	0.0001

12. The discharger shall assure that records of all monitoring information are maintained and accessible for a period of at least five years from the date of the sample, report, or application. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or by the request of the Executive Officer at any time. Records of monitoring information shall include:

    a. The date(s), exact place, and time of sampling;
    b. The individual(s) who performed the sampling;
    c. The date(s) analyses were performed;
    d. The laboratory(ies) that performed the analyses;
    e. The individual(s) who performed the analyses;
    f. The analytical techniques or methods used;
    g. All sampling and analytical results;
    h. All monitoring equipment calibration and maintenance records;
    i. All original strip charts from continuous monitoring devices;
    j. All data used to complete the application for this Order; and
    k. Copies of all reports required by this Order.

13. Samples shall be collected during each discharge event.

14. "Grab" samples are those samples collected in less than 15 minutes.

15. A composite sample is defined as a combination of no fewer than eight individual grab samples obtained over the specified sampling period. The volume of each individual grab sample shall be proportional to the discharge flow rate at the time of sampling. The compositing period shall equal the specific sampling period, or 24 hours, if no period is specified.

16. Semi-annual samples shall be collected in June 2002, December 2002, June 2006 and December 2006.

17. Annual samples shall be collected in June 2002 and June 2006:

B. Effluent Monitoring

1. Sampling station(s) shall be established at the point(s) of discharge and shall be located where representative samples of the effluent can be obtained. The following shall be the monitoring program for this discharge. :

Constituent	Sample type	Units	Minimum Frequency of Analysis
Flow	Flow meter	gpd	Each discharge event
Total Suspended Solids	Grab	mg/l	Each discharge event during the first 30 minutes
Total Dissolved Solids	"	"	"
Residual Chlorine	"	"	"
Total Inorganic Nitrogen	"	"	"
Total Nitrogen	"	"	"
Total Phosphorous	"	"	"
Selenium	"	"	"
2,3,7,8-TetraCDD	Composite	ρg/l (parts-per-quadrillion)	Semi-annually (see A.11., A. 16. above)
1,2,3,7,8-PentaCDD	"	"	"
1,2,3,4,7,8-HexaCDD	"	"	"
1,2,3,6,7,8-HexaCDD	"	"	"
1,2,3,7,8,9-HexaCDD	"	"	"
1,2,3,4,6,7,8-HeptaCDD	"	"	"
OctaCDD	"	"	"
2,3,7,8-TetraCDF	"	"	"

Constituent	Sample type	Units	Minimum Frequency of Analysis
1,2,3,7,8-PentaCDF	Composite	ρg/l (parts-per-quadrillion)	Semi-annually (see A.11., A. 16. above)
2,3,4,7,8-PentaCDF	"	"	"
1,2,3,4,7,8-HexaCDF	"	"	"
1,2,3,6,7,8-HexaCDF	"	"	"
1,2,3,7,8,9-HexaCDF	"	"	"
2,3,4,6,7,8-HexaCDF	"	"	"
1,2,3,4,6,7,8-HeptaCDF	"	"	"
1,2,3,4,7,8,9-HeptaCDF	"	"	"
OctaCDF	Composite	ρg/l (parts-per-quadrillion)	Semi-annually (see A.11., A. 16., above)
Volatile organic portion of remaining EPA Priority Pollutants (See Attachment "C)	Grab	µg/l	Once Annually (see A.17., above)
Remaining EPA Priority Pollutants (See Attachment "C)	Composite	µg/l	Once Annually (see A.17., above)

C. Toxicity Monitoring

1. Once annually in June, the discharger shall conduct 96-hour, static renewal acute toxicity testing on the 100 % effluent, using the Water Flea, *Ceriodaphnia dubia* and using the pass-fail test method specified in *"Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms"*, Fourth Edition (EPA/600/4-90/027F, August 1993).

D. Reporting

Reporting shall be in accordance with the following:

1. Monitoring reports shall be submitted by the 30th day of April, July, October, and January, following each quarter, and shall include:

    a. The results of all effluent chemical analyses for the previous three months and the calculated mass of total inorganic nitrogen discharged using the total volume of wastewater discharged for each month.

b. The daily flow data,

c. Toxicity monitoring data (submitted with the July report), and

d. For every item of monitoring data where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and shall submit a timetable for correction.

2. All reports shall be arranged in a tabular format to clearly show compliance or noncompliance with each discharge limitation.

3. If no discharge occurs during the previous monitoring period, a letter to that effect shall be submitted in lieu of a monitoring report.

4. All reports shall be signed by a responsible officer or duly authorized representative of the discharger and shall be submitted under penalty of perjury.

Ordered by _____

Gerard J. Thibeault
Executive Officer

May 31, 2002

PRACTICAL QUANTITATION LEVELS FOR COMPLIANCE DETERMINATION

	Constituent	PQL µg/l	Analysis Method
1	Arsenic	7.5	GF/AA
2	Barium	20.0	ICP/GFAA
3	Cadmium	15.0	ICP
4	Chromium (VI)	15.0	ICP
5	Cobalt	10.0	GF/AA
6	Copper	19.0	GF/ICP
7	Cyanide	50.0	335.2/335.3
8	Iron	100.0	ICP
9	Lead	26.0	GF/AA
10	Manganese	20.0	ICP
11	Mercury	0.50	CV/AA
12	Nickel	50.0	ICP
13	Selenium	2.0	EPA Method 1638, 1640 or 7742
14	Silver	16.0	ICP
15	Zinc	20.0	ICP
16	1,2 - Dichlorobenzene	5.0	601/602/624
17	1,3 - Dichlorobenzene	5.0	601
18	1,4 - Dichlorobenzene	5.0	601
18	2,4 - Dichlorophenol	10.0	604/625
20	4 - Chloro -3- methylphenol	10.0	604/625
21	Aldrin	0.04	608
22	Benzene	1.0	602/624
23	Chlordane	0.30	608
24	Chloroform	5.0	601/624
25	DDT	0.10	608
26	Dichloromethane	5.0	601/624
27	Dieldrin	0.10	608
28	Fluorantene	10.0	610/625
29	Endosulfan	0.50	608
30	Endrin	0.10	608
31	Halomethanes	5.0	601/624
32	Heptachlor	0.03	608
33	Hepthachlor Epoxide	0.05	608
34	Hexachlorobenzene	10.0	625
35	Hexachlorocyclohexane		
	Alpha	0.03	608
	Beta	0.03	608
	Gamma	0.03	608
36	PAH's	10.0	610/625
37	PCB	1.0	608
38	Pentachlorophenol	10.0	604/625
39	Phenol	10.0	604/625
40	TCDD Equivalent	0.05	8280
41	Toluene	1.0	602/625
42	Toxaphene	2.0	608
43	Tributyltin	0.02	GC
44	2,4,6-Trichlorophenol	10.0	604/625

MINIMUM LEVELS IN PPB (µg/l)

Table 2a - VOLATILE SUBSTANCES[1]	GC	GCMS
Acrolein	2.0	5
Acrylonitrile	2.0	2
Benzene	0.5	2
Bromoform	0.5	2
Carbon Tetrachloride	0.5	2
Chlorobenzene	0.5	2
Chlorodibromomethane	0.5	2
Chloroethane	0.5	2
Chloroform	0.5	2
Dichlorobromomethane	0.5	2
1,1 Dichloroethane	0.5	1
1,2 Dichloroethane	0.5	2
1,1 Dichloroethylene	0.5	2
1,2 Dichloropropane	0.5	1
1,3 Dichloropropylene (volatile)	0.5	2
Ethylbenzene	0.5	2
Methyl Bromide (*Bromomethane*)	1.0	2
Methyl Chloride (*Chloromethane*)	0.5	2
Methylene Chloride (*Dichloromethane*)	0.5	2
1,1,2,2 Tetrachloroethane	0.5	1
Tetrachloroethylene	0.5	2
Toluene	0.5	2
trans-1,2 Dichloroethylene	0.5	1
1,1,1 Trichloroethane	0.5	2
1,1,2 Trichloroethane	0.5	2
Trichloroethylene	0.5	2
Vinyl Chloride	0.5	2
1,2 Dichlorobenzene (volatile)	0.5	2
1,3 Dichlorobenzene (volatile)	0.5	2
1,4 Dichlorobenzene (volatile)	0.5	2

Selection and Use of Appropriate ML Value:

ML Selection: When there is more than one ML value for a given substance, the discharger may select any one of those ML values, and their associated analytical methods, listed in Attachment "A" that are below the calculated effluent limitation for compliance determination. If no ML value is below the effluent limitation, then the discharger shall select the lowest ML value, and its associated analytical method, listed in this Attachment "A".

ML Usage: The ML value in Attachment "A" represents the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical procedures and the absence of any matrix interferences. Assuming that all method-specific analytical steps are followed, the ML value will also represent, after the appropriate application of method-specific factors, the lowest standard in the calibration curve for that specific analytical technique. Common analytical practices sometimes require different treatment of the sample relative to calibration standards.

Note: chemical names in parenthesis and italicized is another name for the constituent.

[1] *The normal method-specific factor for these substances is 1, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.*

MINIMUM LEVELS IN PPB (µg/l)

Table 2b – Semi-Volatile Substances[2]	GC	GCMS	LC
2-Chloroethyl vinyl ether	1	1	
2 Chlorophenol	2	5	
2,4 Dichlorophenol	1	5	
2,4 Dimethylphenol	1	2	
4,6 Dinitro-2-methylphenol	10	5	
2,4 Dinitrophenol	5	5	
2- Nitrophenol		10	
4- Nitrophenol	5	10	
4 Chloro-3-methylphenol	5	1	
2,4,6 Trichlorophenol	10	10	
Acenaphthene	1	1	0.5
Acenaphthylene		10	0.2
Anthracene		10	2
Benzidine		5	
Benzo (a) Anthracene (*1,2 Benzanthracene*)	10	5	
Benzo(a) pyrene (*3,4 Benzopyrene*)		10	2
Benzo (b) Flouranthene (*3,4 Benzofluoranthene*)		10	10
Benzo(g,h,i)perylene		5	0.1
Benzo(k)fluoranthene		10	2
bis 2-(1-Chloroethoxyl) methane		5	
bis(2-chloroethyl) ether	10	1	
bis(2-Chloroisopropyl) ether	10	2	
bis(2-Ethylhexyl) phthalate	10	5	
4-Bromophenyl phenyl ether	10	5	
Butyl benzyl phthalate	10	10	
2-Chloronaphthalene		10	
4-Chlorophenyl phenyl ether		5	
Chrysene		10	5
Dibenzo(a,h)-anthracene		10	0.1
1,2 Dichlorobenzene (semivolatile)	2	2	
1,3 Dichlorobenzene (semivolatile)	2	1	
1,4 Dichlorobenzene (semivolatile)	2	1	
3,3' Dichlorobenzidine		5	
Diethyl phthalate	10	2	
Dimethyl phthalate	10	2	
di-n-Butyl phthalate		10	
2,4 Dinitrotoluene	10	5	
2,6 Dinitrotoluene		5	
di-n-Octyl phthalate		10	
1,2 Diphenylhydrazine		1	
Fluoranthene	10	1	0.05
Fluorene		10	0.1
Hexachloro-cyclopentadiene	5	5	
1,2,4 Trichlorobenzene	1	5	

MINIMUM LEVELS IN PPB (µg/l)

Table 2b - SEMI-VOLATILE SUBSTANCES[2]	GC	GCMS	LC	COLOR
Pentachlorophenol	1	5		
Phenol [3]	1	1		50
Hexachlorobenzene	5	1		
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		
Indeno(1,2,3,cd)-pyrene		10	0.05	
Isophorone	10	1		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
N-Nitroso diphenyl amine	10	1		
Phenanthrene		5	0.05	
Pyrene		10	0.05	

Table 2c – INORGANICS[4]	FAA	GFAA	ICP	ICPMS	SPGF AA	HYDRIDE	CVAA	COLOR	DCP
Antimony	10	5	50	0.5	5	0.5			1000
Arsenic		2	10	2	2	1		20	1000
Beryllium	20	0.5	2	0.5	1				1000
Cadmium	10	0.5	10	0.25	0.5				1000
Chromium (total)	50	2	10	0.5	1				1000
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1000
Lead	20	5	5	0.5	2				10000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1000
Selenium		5	10	2	5	1			1000
Silver	10	1	10	0.25	2				1000
Thallium	10	2	10	1	5				1000
Zinc	20		20	1	10				1000
Cyanide								5	

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2 *With the exception of phenol by colorimetric technique, the normal method-specific factor for these substances is 1000, therefore, the lowest standards concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1000.*

3 *Phenol by colorimetric technique has a factor of 1*

4 *The normal method-specific factor for these substances is 1, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.*

MINIMUM LEVELS IN PPB (µg/l)

Table 2d - PESTICIDES – PCBs[5]	GC
Aldrin	0.005
alpha–BHC (*a-Hexachloro-cyclohexane*)	0.01
beta–BHC (*b-Hexachloro-cyclohexane*)	0.005
Gamma–BHC (*Lindane; g-Hexachloro-cyclohexane*)	0.02
Delta-BHC (*d-Hexachloro-cyclohexane*)	0.005
Chlordane	0.1
4,4'-DDT	0.01
4,4'-DDE	0.05
4,4'-DDD	0.05
Dieldrin	0.01
Alpha-Endosulfan	0.02
Beta-Endosulfan	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

Techniques:
GC - Gas Chromatography
GCMS - Gas Chromatography/Mass Spectrometry
HRGCMS - High Resolution Gas Chromatography/Mass Spectrometry (i.e., EPA 1613, 1624, or 1625)
LC - High Pressure Liquid Chromatography
FAA - Flame Atomic Absorption
GFAA - Graphite Furnace Atomic Absorption
HYDRIDE - Gaseous Hydride Atomic Absorption
CVAA - Cold Vapor Atomic Absorption
ICP - Inductively Coupled Plasma
ICPMS - Inductively Coupled Plasma/Mass Spectrometry
SPGFAA - Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)
DCP - Direct Current Plasma
COLOR - Colorimetric

[5] *The normal method-specific factor for these substances is 100, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 100.*

EPA PRIORITY POLLUTANT LIST

Metals	Method
Antimony	ICP
Arsenic	GF/AA
Beryllium	ICP
Cadmium	ICP
Chromium	ICP
Copper	GF/AA
Lead	GF/AA
Mercury	CV/AA
Nickel	ICP
Selenium	GF/HYDRIDE
Silver	ICP
Thallium	ICP
Zinc	ICP

Miscellaneous	Method
Cyanide	335.2/335.3
Asbestos (not required unless requested)	
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (TCDD)	8280

Pesticides	Method
Aldrin	608
Chlordane	"
Dieldrin	"
4, 4' - DDT	"
4, 4' - DDE	"
4, 4' - DDD	"
Alpha Endosulfan	"
Beta Endosulfan	"
Endosulfan Sulfate	"
Endrin	"
Endrin Aldehyde	"
Heptachlor	"
Heptachlor Epoxide	"
Alpha BHC	"
Beta BHC	"
Delta BHC	"
Gamma BHC	"
Toxaphene	"
PCB 1016	"
PCB 1221	"
PCB 1232	"
PCB 1242	"
PCB 1248	"
PCB 1254	"
PCB 1260	"

Base/Neutral Extractibles	Method
Acenaphthene	625
Acenaphthylene	"
Anthracene	"
Benzidine	"
Benzo (a) Anthracene	"
Benzo (a) Pyrene	"
Benzo (b) Fluoranthene	"
Benzo (g,h,i) Perylene	"
Benzo (k) Fluoranthene	"
Bis (2-Chloroethoxy) Methane	"
Bis (2-Chloroethyl) Ether	"
Bis (2-Chloroisopropyl) Ether	"
Bis (2-Ethylhexyl) Phthalate	"
4-Bromophenyl Phenyl Ether	"
Butyl Benzyl Phthalate	"
2-Chloronaphthalene	"
Chrysene	"
Dibenzo (a,h) Anthracene	"
4-Chlorophenyl Phenyl Ether	"
1,2-Dichlorobenzene	"
1,3-Dichlorobenzene	"
1,4-Dichlorobenzene	"
3,3-Dichlorobenzidine	"
Diethyl Phthalate	"
Dimethyl Phthalate	"
Di-N-Butyl Phthalate	"
2,4-Dinitrotoluene	"
2-6-Dinitrotoluene	"
1,2-Dipenylhydrazine (as Azobenzene)	"
Di-N-Octyl Phthalate	"
Fluoranthene	"
Fluorene	"
Hexachlorobenzene	"
Hexachlorobutadiene	"
Hexachlorocyclopentadiene	"
Hexachloroethane	"
Indeno (1,2,3-cd) Pyrene	"
Isophorone	"
Naphthalene	"
Nitrobenzene	"
N-Nitrosodimethylamine	"
N-Nitrosodi-N-Propylamine	"
N-Nitrosodiphenylamine	"
Phenanthrene	"
Pyrene	"
1,2,4-Trichlorobenzene	"

Acid Extractibles	Method
2-Chlorophenol	625
2,4-Dichlorophenol	"
2,4-Dimethylphenol	"
4,6-Dinitro-O-Cresol	"
2,4-Dinitrophenol	"
2-Nitrophenol	"
4-Nitrophenol	"
P-Chloro-M-Cresol	"
Pentachlorophenol	"
Phenol	"
2, 4, 6 - Trichlorophenol	"

Volatile Organics	Method
Acrolein	603
Acrylonitrile	"
Benzene	601/602
Bromoform	"
Carbon Tetrachloride	"
Chlorobenzene	"
Chlorodibromomethane	"
Chloroethane	"
2-Chloroethyl Vinyl Ether	"
Chloroform	"
Dichlorobromomethane	"
1,1-Dichloroethane	"
1,2-Dichloroethane	"
1,1-Dichloroethylene	"
1,2-Dichloropropane	"
1,3-Dichloropropylene	"
Ethylbenzene	"
Methyl Bromide	"
Methyl Chloride	"
Methylene Chloride	"
1,1,2,2-Tetrachloroethane	"
Tetrachloroethylene	"
Toluene	"
1,2-Trans-Dichloroethylene	"
1,1,1-Trichloroethane	"
1,1,2-Trichloroethane	"
Trichloroethylene	"
Vinyl Chloride	"