



## EXECUTIVE SUMMARY

Technically based local limits are industrial users discharge limits designed to protect publically owned treatment works (POTW) and their workers from discharges that may pass through or interfere with treatment plant processes, cause the POTW effluent to not meet discharge limits, and/or hinder or prevent beneficial reuse of biosolids and beneficial reuse of the effluent. Local limits are based on site-specific data regarding the performance of the POTW and local collection system and consider the industrial user's (IU's) current discharge.

The City of Oceanside (Oceanside) last developed local limits for industrial users in 1982 and contracted RvL Associates (RvL) to develop technically based local limits using recent collection system, treatment plant, and industrial user samples. Oceanside has two wastewater treatment plants (San Luis Rey Water Reclamation Facility [SLR] and La Salina Wastewater Treatment Plant [LS]) that use preliminary, primary, and activated sludge secondary treatment for discharge of effluent to the ocean. Oceanside's Mission Basin Desalting Facility discharges brine from its reverse osmosis system to the ocean before the ocean discharge, compliance point in the Oceanside Ocean Outfall (OOO). Genentech, a pharmaceutical manufacturer, also discharges brine to the ocean discharge upstream of the compliance point. Eight months per year, SLR uses tertiary treatment to produce Title 22 recycled water for the City golf course and Lake Whalen.

RvL reviewed wastewater quality and flow data, discharge permit, and other data to determine potential pollutants of concern (POCs). With Oceanside, RvL developed a sampling plan to collect the additional information needed to develop the local limits. Oceanside collected and analyzed the samples, transmitting the results to RvL for review and analysis.

RvL analyzed the data and divided POCs into three groups, toxic pollutants (Group 1), conventional pollutants (Group 2), and mineral constituents (Group 3). OOO discharge performance goals based on the California Ocean Plan, land application of biosolids, regulations, and, for two constituents, State of California hazardous waste characteristic requirements are the basis for toxic POC. Plant design criteria typically limit conventional POC. However, the treatment plants are not designed for ammonia removal. Nonetheless, ammonia has a discharge limit, and because Oceanside demonstrated a correlation between OOO ammonia concentration and toxicity, we considered both criteria for local limits development. Mineral POC local limits only apply to the recycled water discharge from SLR.

RvL made calculations to provide the necessary information to develop allowable headworks loadings (AHL), maximum allowable headworks loadings (MAHL), and maximum allowable industrial loading (MAIL) for each wastewater treatment plant. We calculated a uniform concentration limit for Group 1 POC by dividing the MAIL for each plant by the industrial flow to the plant and recommended the lesser concentration as the local limit concentration limit. For all limits except chromium, this was the uniform concentration limit for SLR. Uniform concentration local limits are conservative limits and to prevent the potential for some IUs to exceed these stringent values, we used the EPA Guidance industrial contributory method calculations for arsenic and nickel, which are still protective of the plant.

For biochemical oxygen demand (BOD) and ammonia, RvL recommends that Oceanside establish a MAIL that is 90% of the calculated MAIL. The 10% is reserved for a potential new large IU wanting that allocation provided they have been diligent in implementing pollution prevention, source control, and/or pretreatment to control their discharge. We recommend that Oceanside permit and establish limits for IUs



City of Oceanside  
Technically Based Local Limits Study

that discharge 200 pounds per day (ppd) BOD and/or 30 ppd of ammonia. There are two IUs that discharge 200 ppd BOD (Hydranautics and Mission Linen) and one IU (Hydranautics) discharges more than 30 ppd of ammonia. We recommend that the existing mass-based limits for these two IUs continue as they are, but eliminate BOD and ammonia mass limits on other IUs.

Mineral POCs limits only apply to recycled water; were limited to boron and total dissolved solids (TDS); and limited to IUs discharging to SLR. Oceanside plans to increase their production of recycled water in the future and wishes to maintain its high quality to attract new customers. OOO discharge limits are 0.5 mg/L B and 1,200 mg TDS as 12-month averages and 1,300 mg/L TDS as a daily maximum. In addition to meeting all discharge standards, Oceanside wants to maintain the TDS at their current levels of just over 1,000 mg/L. However, they recognize that to attract new IUs and sustain existing ones, they do not want to overburden IUs with restrictions. Therefore, we recommend an approach that provides an allowance for new IU with a large TDS discharge to locate in the SLR service area and provides for the expansion of existing industries in an environmentally responsible manner, meaning IUs can discharge more TDS, but they must investigate and implement technically feasible and economically viable reductions. We allocated the boron MAIL as a uniform concentration limit to those IUs discharging boron in concentrations above background levels from uncontrolled sources.

Similar to BOD and ammonia, we recommended that IUs discharging a minimum mass of TDS (300 ppd) be permitted and have discharge limits established. The report contains two major strategies to control TDS and four methods to allocate the TDS MAIL. We considered two alternatives that allow significant IU flexibility while protecting the recycled water quality and recommended that Oceanside permit the three major and two significant IUs discharge TDS and establish TDS mass limits for those five IUs. The recommended allocation method is to use a "first come, first served with conditions" method. Oceanside would make 90% of the MAIL available to the five IUs, reserving 10% of the MAIL for a new major TDS discharger. The IU could increase their TDS mass discharge with the condition that if the TDS mass increase is 20% or more above their current levels, the IU needs to evaluate and, where appropriate, implement TDS control strategies. If the actual TDS load drops below 70% of the predicted or previous year's actual load, Oceanside would reduce the permitted TDS load by 10%.

There are no data for grease and oil, phenolic compounds, sulfide, or TTO. A local limit for grease and oil is primarily to protect the collection system. There are no known studies to determine the mass of grease and oil that would cause interference and plugging of a sewer, and we only know of one conducted by a POTW that attempted to define the performance of standard grease traps and clarifiers. Some POTW differentiate petroleum and animal or plant-based grease and oil standards. The current local limit is on the lower end of other POTW local limits and half that of the typical performance of a standard grease trap. Depending on the past problems with administering and enforcement, Oceanside may wish to change their standard. At minimum, we recommend Oceanside specify the type of grease and oil they wish to regulate or eliminate it as a limit.

The OOO discharge limits include chlorinated and non-chlorinated phenolic compounds. The current local limit does not specify and therefore is for all phenolic compounds. There is no known source of industrial phenolic compounds, Oceanside is easily meeting the OOO discharge limit, and there are no reported plant problems with phenolic compounds. Therefore, we recommend that Oceanside eliminate this local limit.



City of Oceanside  
 Technically Based Local Limits Study

Sulfide is another POC whose local limit is primarily to protect the collection system. A high sulfide discharge can cause POTW system corrosion, but so can a high BOD and sulfate discharge that must travel a long distance under anaerobic conditions. Other POTW sulfide local limits are typically 0.5 to 1.0 mg/L. There are no Oceanside data available for this POC and other than comparing the current limit with limits from other POTWs, we have no recommendation for this POC.

EPA categorical standards define TTO as the summation of specific toxic organic compounds detected above 10 µg/L. Many of the TTO compounds are also ones listed in the 2001 California Ocean Plan and have performance goals in the OOO discharge permit. Volatile TTO compounds evaporate during conveyance and in the treatment process. TTO are typically associated with categorical industries and Oceanside has narrative limits in their sewer use ordinance that can be used to control any gross discharge of TTO. We recommend that the TTO local limit be removed. Table 1 shows the current and proposed local limits for the POC studied.

**Table 1. Oceanside Current and Proposed Local Limits**

Pollutant	Chemical Symbol	Units	Current Limit	Proposed Limit	Comments
Arsenic	As	mg/L	0.5	0.91	
Boron	B	mg/L	1.0	2.7	SLR only
Cadmium	Cd	mg/L	0.11	0.15	
Chromium	Cr	mg/L	2.77	15	
Copper	Cu	mg/L	3.38	3.3	
Cyanide	CN	mg/L	1.2	3.9	
Grease and Oil		mg/L	100		Eliminate; covered by narrative limit in SUO
Lead	Pb	mg/L	0.69	0.94	
Mercury	Hg	mg/L	0.05	0.057	
Molybdenum	Mo	mg/L		0.56	New limit per EPA guidelines
Nickel	Ni	mg/L	3.98	9.3	
Phenolic Compounds		mg/L	2.0		No data for local limit; eliminate as a local limit
Selenium	Se	mg/L		0.34	New limit per EPA guidelines
Silver	Ag	mg/L	0.43	3.4	
Sulfide	S <sup>2-</sup>	mg/L	1.0	1.0	Retain existing local limit
Total Metals		mg/L	10.5		Eliminate; no need for (aggregate) POC limit



City of Oceanside  
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Pollutant	Chemical Symbol	Units	Current Limit	Proposed Limit	Comments
Total Toxic Organics	TTO	mg/L	2.13		Eliminate; covered by narrative limit in SUO
Zinc	Zn	mg/L	2.61	4.2	
BOD <sub>5</sub>	BOD	ppd	Individual permits	MAIL of 6,500 ppd; maintain current limits for 2 IUs	Monitor IUs; track total BOD versus MAIL; permit IUs above 200 ppd (2); eliminate limits for other IUs; require contingency plan for Hydranautics; pollution prevention report required for increase of 20% above current limit.
Ammonia	NH <sub>3</sub>	ppd	Individual permits	MAIL of 1,200 ppd Maintain current limit for 1 IU; eliminate limits for other IUs	Monitor IUs; track total NH <sub>3</sub> versus MAIL and NPDES permit changes; permit IUs above 30 ppd (1); require contingency plan for Hydranautics; pollution prevention report required for increase of 20% above current limit
Total Dissolved Solids	TDS	ppd	None	MAIL for SLR-19,100 ppd	SLR only; monitor IUs; track total TDS versus MAIL; allow IUs to expand as needed up to the MAIL; pollution prevention report required for increase of 20% above current limit



# CITY OF OCEANSIDE

WATER UTILITIES DEPARTMENT LABORATORY  
SAN DIEGO REGIONAL  
WATER QUALITY  
CONTROL BOARD

November 13, 2012  
Item No. 9  
Supporting Document No. 2

*J. Lim*

2012 AUG 16 A 11: 24

August 13, 2012

Executive Officer (Attn: Ms. Joann Lim)  
California Regional Water Quality Control Board  
San Diego Region  
9174 Sky Park Court, Suite 100  
San Diego, CA 92123-4340

Subject: Update to Local Limits Study

Dear Ms. Lim:

~~Enclosed is an update dated July 9, 2012 to the original Technically Based Local Limits Study dated February 2011.~~

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Very Respectfully,

Mark Hammond  
Compliance Officer

Enclosure

July 9, 2012

Mr. Mark Hammond  
Laboratory Manager  
City of Oceanside  
Water Utilities Division  
3950 North River Road  
Oceanside, CA 92058

Subject: Update to Technically Based Local Limits Study, February 2011

Dear Mr. Hammond:

As requested, we have updated Tables 1 and 7, both titled Oceanside Current and Proposed Local Limits of our Technically Based Local Limits Study, February 2011. Table 1 is presented in the Executive Summary, and Table 7, the same table, is presented in the Recommendations chapter. The updates reflect the inclusion of the Maximum Allowable Industrial Loadings (MAIL) for biochemical oxygen demand (BOD) and ammonia as nitrogen (NH<sub>3</sub>-N) for the La Salina Wastewater Treatment Plant (LS) and recommended limits for NH<sub>3</sub>-N and total dissolved solids (TDS) based on more current information. MAIL calculations for the other pollutants of concern (POC) were not included as the total industrial flow decreased and one of the larger IUs discharging metals significantly reduced operations. Both factors would have increased the allowable metals limits and, to be conservative, we do not recommend changing the limits of the other POCs as they are generally an increase above the existing limits and all IU can meet the limits published in the February 2011 report. The following paragraphs explain the changes to the table. The revised table showing the minor changes to Tables 1 and Table 7 of the original report to reflect more and current discharge data is presented as Attachment A.

## New Limits and Data

In April 2011, RvL prepared and transmitted a letter to the City of Oceanside (Oceanside) regarding the new NH<sub>3</sub>-N MAIL based on 53 mg/L, the 6-month median NH<sub>3</sub>-N concentration in the Oceanside discharge permit. This increased the MAIL by about 65% from the previous study. The recommendations for administering the NH<sub>3</sub>-N local limits remained the same. A copy of the letter is attached for reference as Attachment B.

Our original report issued in February 2011 used Oceanside-collected data from 2008 and 2009. Oceanside provided additional data from 2010 through the beginning of 2012 for 12 of the larger dischargers because there had been some significant changes to the operations of some industrial users and Oceanside wanted to determine whether these operational changes would impact our recommendations for local limits. Parameters included biochemical oxygen demand (BOD), NH<sub>3</sub>-N, TDS, and flow to the sewer.

Mr. Mark Hammond  
July 9, 2012  
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The original report recommended that industrial users (IU) dischargers be identified and tracked if their discharge was equal to or greater than 200 ppd of BOD, 30 mg/L and 30 ppd of NH<sub>3</sub>-N, or 300 ppd of TDS. RvL analyzed the additional Oceanside data and calculated MAILs for SLR and LS for comparison to the original report values. Attachment C includes a summary of the statistical information about the data sets for each of the 12 IUs. Attachment C also includes a chart comparing the final report results to results using the additional data as it relates to TDS. Although the flow to SLR decreased by 25%, calculated additional TDS discharged due to industrial growth, MAIL based on the 12-month average and daily maximum, and available MAIL for IU growth are all 94% or greater than the amounts reported in the original report.

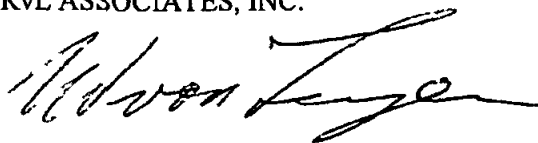
## Conclusions and Recommendations

Some IU decreased and others increased their discharges of BOD, NH<sub>3</sub>-N, and TDS. However, results from analyzing the more current IU data find that the MAIL is similar to those found in the original report. The conclusions and recommendations of how to control these three POC are the same as in the original report.

Thank you for the opportunity to provide these additional services. Please contact me if you have any questions.

Very truly yours,

RvL ASSOCIATES, INC.



Richard W. von Langen, P.E.  
President

# ATTACHMENT A

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**Table 1. Oceanside Current and Proposed Local Limits**

Pollutant	Chemical Symbol	Units	Current Limit	Proposed Limit	Comments
Arsenic	As	mg/L	0.5	0.91	
Boron	B	mg/L	1.0	2.7	SLR <sup>a</sup> only
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Chromium	Cr	mg/L	2.77	15	
Copper	Cu	mg/L	3.38	3.3	
Cyanide	CN	mg/L	1.2	3.9	
Grease and Oil		mg/L	100	Eliminate; covered by narrative limit in SUO <sup>b</sup>	
Lead	Pb	mg/L	0.69	0.94	
Mercury	Hg	mg/L	0.05	0.057	
Molybdenum	Mo	mg/L		0.56	New limit per EPA <sup>c</sup> guidelines
Nickel	Ni	mg/L	3.98	9.3	
Phenolic Compounds		mg/L	2.0		No data for local limit; eliminate as a local limit
Selenium	Se	mg/L		0.34	New limit per EPA guidelines
Silver	Ag	mg/L	0.43	3.4	
Sulfide	S <sup>2-</sup>	mg/L	1.0	1.0	Retain existing local limit
Total Metals		mg/L	10.5		Eliminate; no need for (aggregate) POC <sup>d</sup> limit
Total Toxic Organics	TTO	mg/L	2.13		Eliminate; covered by narrative limit in SUO
Zinc	Zn	mg/L	2.61	4.2	
BOD <sub>5</sub>	BOD	ppd		Individual permits MAIL of 6,806 ppd SLR and 3,852 for LS <sup>e</sup> ; maintain current limits for 2 IUs; issue permit for 1 new IU <sup>f</sup>	Monitor IUs; track total BOD versus MAIL; permit IUs above 200 ppd; eliminate limits for other IUs; pollution prevention report required for increase of 20% above current limit.
Ammonia	NH <sub>3</sub> -N	ppd	Individual permits	MAIL of 1,980 ppd for SLR and 537 for LS; maintain current limit for 1 IU; eliminate limits for other IUs	Monitor IUs; track total NH <sub>3</sub> -N versus MAIL and NPDES permit changes; permit IUs above 30 ppd (1); pollution prevention report required for increase of 20% above current limit
Total Dissolved Solids	TDS	ppd	None	MAIL for SLR-18,664 ppd	SLR only; monitor IUs; track total TDS versus MAIL; allow IUs to expand as needed up to the MAIL; pollution prevention report required for increase of 20% above current discharge

<sup>a</sup> SLR—San Luis Rey Treatment Plant

<sup>b</sup> SUO—Sewer Use Ordinance

<sup>c</sup> EPA—Environmental Protection Agency

<sup>d</sup> POC—Pollutant of Concern

<sup>e</sup> LS—La Salina Treatment Plant

<sup>f</sup> IU—Industrial User

# ATTACHMENT B

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April 18, 2011

Mr. Peregrino Yosuico  
Industrial Waste Inspector  
3950 North River Road  
Oceanside, CA 92058

Subject: Revision of Ammonia Technically Based Local Limits

Dear Mr. Yosuico:

The City of Oceanside (Oceanside) Oceanside Ocean Outfall (OOO) limit for ammonia based on the California Ocean Plan 2001 permit limits for ammonia are 210 mg/L ammonia as nitrogen for the daily maximum or 40,000 pounds per day (ppd) at the permitted flow of 22.9 million gallons per day. The 6-month median limit for ammonia is 53 mg/L or 10,000 ppd. In previous studies, Oceanside found that high ammonia concentrations caused the effluent to fail the acute toxicity test and from those studies, Oceanside predicted the maximum effluent concentration that could be discharged.

In the final "City of Oceanside Technically Based Local Limits" report, RvL Associates (RvL) calculated the allowable headworks loadings (AHLs) for the three limits and found that the acute toxicity limit determined the maximum allowable headworks loading (MAHL) for ammonia. Recently, Regional Water Quality Control Board, San Diego Region (RWQCB) informed Oceanside that the acute toxicity limit was being removed from the OOO permit. Oceanside conducted additional tests and found that effluent ammonia concentrations below 53 mg/L would not cause the effluent to fail the chronic effluent toxicity test. Therefore the 6-month median ammonia concentration limit of 53 mg/L became the basis for the MAHL.

Based on this new information, RvL calculated the ammonia local limits for Oceanside's San Luis Rey (SLR) and La Salina (LS) treatment plants and found that the MAIL was about 65% higher. The attached spreadsheet shows that the SLR MAIL is 1,988 and LS is 537 ppd assuming that 90% of the MAIL is made available to existing industrial users.

However, our recommendations for administering the ammonia local limits are the same:

- Continue to require and also collect periodic samples of all permitted IU's effluent where ammonia is greater than 30 mg/L, analyze it for ammonia, and calculate the average ammonia mass loading to the sewer.
- Determine those IUs that become subject to ammonia mass limits.

Mr. Peregrino Yosuico  
April 18, 2011  
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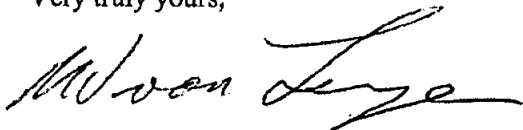
- Remove ammonia mass-loading limits for IUs not discharging more than 30 ppd and only permit IUs with discharges exceeding 30 mg/L and more than 30 ppd of ammonia (approximately 5% of LS influent loading).
- Establish 90% of the MAIL as available to currently discharging major and significant IUs. Ten percent of the MAIL is reserved for new significant IUs and is above the estimated IU's growth.

We recommend that Oceanside maintain their existing ammonia mass discharge limit for Hydranautics until they collect and analyze additional information. As part of the contingency plan prepared by Hydranautics, we recommend that they also submit:

- Current and projected (five year) theoretical maximum and average amine mass loading to the biological treatment system
- Biological treatment system influent and effluent mass loading of ammonia, nitrate, and nitrite
- Measured oxygen uptake rate of the raw wastewater to the biological treatment system

Thank you for the opportunity to provide these additional services. Please contact me if you have any questions.

Very truly yours,



Richard W. von Langen, P.E.  
President

Attachment: Oceanside Local Limits Calculation Spreadsheet

cc: Mo Lahsaiezadeh, Oceanside  
Mark Hammond, Oceanside  
Carrie Dale, Oceanside

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**City of Oceanside - Development of Technically Based Local Limits**  
**Local Limits Calculation**

Industries	Flow MGD	Loadings									
		TDS-Current		BOD-Permitted		BOD-Current		NH3-Permitted		NH3-Current	
		ppd	% of Total	ppd	% of Total	ppd	% of Total	ppd	% of Total	ppd	% of Total
<b>Industries discharging to San Luis Rey WRF</b>											
Deutsch	0.1277	2,167	21%	150	4%	30	3%	100	6%	12	2%
Hydranautics, Inc	0.3388	5,343	52%	2,000	52%	477	52%	1,450	92%	543	96%
West Coast Plating											
SEPRO, Inc	0.0095	60	1%			107	12%			1	0.1%
Genentech, NICO/OCP	0.0487	324	3%	400	10%	89	10%	10	1%	6	1%
Genentech, NIMO/OCN	0.1152	2,018	20%	1,300	34%	49	5%	20	1%	1	0.18%
Elite Metal Finishing	0.0009	35	0.3%			0.08	0.01%			0.08	0.01%
Arctic Glacier Premium Ice	0.0260										
Nitto Denko Technical Corp.	0.0021	5	0.1%			2	0.3%			0.01	0.002%
California Creative Foods	0.0255	301	3%			170	18%			1	0.098%
Indigo Labs	0.0001	0.36	0.004%			0.13	0.01%			0.001	0.0001%
Oceanside Ale Works											
<b>TOTAL</b>	<b>0.6931</b>	<b>10,254</b>	<b>100%</b>	<b>3,850</b>	<b>100%</b>	<b>925</b>	<b>100%</b>	<b>1,580</b>	<b>100%</b>	<b>563</b>	<b>100%</b>
<b>Industries discharging to La Salina WTP</b>											
Mission Linen Service	0.0794					216	91%				
Metro Roof Products	0.0022					22	9%				
Breakwater Brewery Co											
<b>TOTAL</b>	<b>0.0815</b>					<b>238</b>	<b>100%</b>				

Local Limits Based on Uniform Distribution (Except as Noted)

POC	MAIL		Uniform Local Limits			IU Contributory Local Limits		Recommended Local Limit	Current Local Limit
	SLR	LS	SLR	LS	MIN	SLR	LS		
	lbs/day	lbs/day	mg/L	mg/L	mg/L	mg/L	mg/L		
Ag	19.82	5.80	3.43	8.53	3.430			3.4	0.43
As	0.98	0.16	0.17	0.24	0.169	0.91		0.91	0.5
Cd	0.88	0.16	0.15	0.24	0.153			0.15	0.11
CN	22.75	6.58	3.94	9.68	3.935			3.9	1.2
Cr	93.53	10.73	16.18	15.78	15.778			15	2.77
Cu	19.46	3.81	3.37	5.61	3.366			3.3	3.38
Hg	0.33	0.07	0.06	0.11	0.057			0.057	0.05
Mo	3.28	0.74	0.57	1.09	0.567			0.56	
Ni	10.05	2.92	1.74	4.30	1.739	9.37		9.3	3.98
Pb	5.45	1.10	0.94	1.62	0.943			0.94	0.69
Se	1.99	0.39	0.34	0.57	0.344			0.34	
Zn	24.50	4.30	4.24	6.33	4.239			4.2	2.61
B	15.78		2.73		2.729			2.7	1.0
POC	Available MAIL <sup>a</sup>		Current IU		Available for IU Growth		Permitted		
	SLR	LS	SLR	LS	SLR	LS	SLR	LS	
	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	
TDS	19,088	NA	10,254	NA	8,834	NA			
BOD	6,482	3,900	925	238	5,557	3,662	3,850		
NH <sub>4</sub>	1,988	537	563	NT	1,425		1,580		

NA-Not applicable

NT-Not tested

<sup>a</sup> If 90% of MAIL made available to existing IU

# ATTACHMENT C

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CITY OF OCEANSIDE  
 UPDATED BOD, NH3-N, TDS, AND FLOW DATA STATISTICS  
 July 9, 2012

Company	Date Range		Average Mass of POC-ppd			Avg GPD Flow	Comments
	Start	Stop	BOD	NH3-H	TDS		
ARCTIC	4/14/2010	1/7/2012					Small with only max above ID level for TDS
Average			0.51	0.05	161	9,947	
Maximum			7.80	0.14	320	16,003	
Std Dev			1.59	0.04	77	3,530	
% Variance			312%	77%	48%	35%	
Avg + 2 Std Dev			3.69	0.12	316	17,008	
CCF	2/3/2010	9/16/2011					Above ID level for BOD and TDS; no 2012 data
Average			257	1	447	27,384	
Maximum			1050	1	1,363	37,400	
Std Dev			246	0	304	4,412	
% Variance			96%	31%	68%	16%	
Avg + 2 Std Dev			750	1	1,054	36,207	
DEUTSCH	3/31/2010	8/12/2011					Former TDS significant discharger; ~2% of former MAIL
Average			7	1	181	16,295	
Maximum			28	8	1211	99,484	
Std Dev			8	2	294	25,394	
% Variance			1	176%	162%	156%	
Avg + 2 Std Dev			9	5	184	16,298	
	11/30/2010	8/12/2011					Change in operations; now below ID level
Average			5.3	0.56	50	6,166	
Maximum			24.7	7.82	274	53,856	
Std Dev			6.4	1.82	69	12,995	
% Variance			121%	325%	137%	211%	
Avg + 2 Std Dev			18.1	4.19	187	32,156	
ELITE	5/20/2010	12/15/2011					Small and below ID level for TDS
Average			0	0	23	1,092	
Maximum			0	0	73	1,875	
Std Dev			0	0	21	377	
% Variance			0%	0%	93%	35%	
Avg + 2 Std Dev			0	0	65	1,846	
GENEN	4/20/2010	3/16/2012					Large; max is ~50% of former MAIL
Average			318	8	4,136	117,879	
Maximum			830	23	11,125	169,875	
Std Dev			264	8	2,266	25,094	
% Variance			83%	101%	55%	21%	
Avg + 2 Std Dev			847	23	8,669	168,068	
	5/3/2011	3/16/2012					Large; recent new product; max is ~50% of former MAIL; % variability 44%
Average			357	10	5,342	124,816	
Maximum			830	23	11,125	169,875	
Std Dev			329	9	2,327	22,605	
% Variance			92%	93%	44%	18%	
Avg + 2 Std Dev			1016	28	9,997	170,026	
GENEN_NIC	4/20/2010	4/8/2011					Small; maxium above ID level for TDS
Average			32	0.32	237	31,648	
Maximum			168	1.03	402	41,736	
Std Dev			47	0.22	80	7,023	
% Variance			146%	69%	34%	22%	
Avg + 2 Std Dev			126	0.76	397	45,694	

**CITY OF OCEANSIDE**  
**UPDATED BOD, NH3-N, TDS, AND FLOW DATA STATISTICS**  
**July 9, 2012**

Company	Date Range		Average Mass of POC-ppd			Avg GPD Flow	Comments
	Start	Stop	BOD	NH3-H	TDS		
GILEAD	1/10/2012	3/2/2012					New discharger
Average			17	1	246	44,616	
Maximum			32	2	386	49,239	
Std Dev			17	0	102	3,683	
% Variance			100%	51%	41%	8%	
Avg + 2 Std Dev			50	2	449	51,983	
HYDRA	1/12/2010	12/9/2011					Large discharger of BOD, NH3-N, and TDS; maximum TDS is ~20% of former MAIL
Average			427	398	3,526	259,089	
Maximum			837	659	5,110	332,480	
Std Dev			216	127	793	39,067	
% Variance			50%	32%	22%	15%	
Avg + 2 Std Dev			859	652	5,111	337,223	
SEPRO	2/3/2010	3/2/2012					Small; above ID level for BOD, below for NH3-N and TDS; however use all data
Average			268	3	67	12,975	
Maximum			783	37	166	26,068	
Std Dev			291	9	40	4,951	
% Variance			108%	316%	59%	38%	
Avg + 2 Std Dev			850	20	147	22,877	
METRO	3/16/2010	11/18/2011					Small; below ID level for BOD, NH3-N, TDS
Average			14	2	29	1,895	
Maximum			41	4	66	3,142	
Std Dev			10	1	15	611	
% Variance			75%	62%	53%	32%	
Avg + 2 Std Dev			34	3	60	3,118	
MISSION	4/22/2010	12/9/2011					No 2012 data; below ID for BOD, NH3-N; discharges to LS, no TDS issue
Average			163	1	1,123.03	88,991	
Maximum			361	5	1,582.97	100,980	
Std Dev			80	2	266.22	8,720	
% Variance			49%	107%	24%	10%	
Avg + 2 Std Dev			324	4	1,655.46	106,430	
INDIGO	1/26/2010	5/18/2010					Small; below ID level
Average			0.60	0.00	0.83	63	
Maximum			1.94	0.00	1.97	100	
Std Dev			0.83	0.00	0.63	23	
% Variance			138%	98%	76%	36%	
Avg + 2 Std Dev			2.27	0.00	2.09	109	

Discharges to La Salina Wastewater Treatment Plant



CITY OF OCEANSIDE LOCAL LIMITS  
 COPARISON OF FINAL REPORT (2008-2009 DATA) VS. CURRENT CONDITIONS (2010-2012 DATA)  
 JULY 2012

SOURCE	IU FLOW--MGD <sup>a</sup> SLR	IU TDS-PPD Addt <sup>b</sup> SLR	MAIL-PPD-SLR <sup>c</sup>		Available MAIL <sup>d</sup> SLR-PPD	Current IU TDS <sup>e</sup> SLR-PPD	Available for IU Growth <sup>f</sup> SLR-PPD
			12 mo Avg	Daily Max			
Final Report	0.693	513	24,893	21,209	19,088	10,254	8,834
Rvsd TDS	0.517	489	24,415	20,731	18,658	9,613	9,045
Rvsd/Final	75%	95%	98%	98%	98%	94%	102%

Comments

- a IU flow to SLR decreased primarily due to the decrease in flow from Deutsch
- b IU growth is based on 5% of the current industrial load
- c 10% safety factor used to meet the 12-month average; 20% safety factor used to meet the daily maximum; final report and revised values nearly the same
- d Available MAIL is 90% of the MAIL
- e Current TDS is 95% of that in the original final report primarily due to the large increase from Genentech
- f Overall the final report and current "conditions" are nearly the same; the MAIL available to allocate is also nearly the same