

Table 15. Comparison of Proposed MAHLs to Existing MAHLs and Present Influent Loadings

Pollutants	Proposed MAHLs w/ 25% Safety Factor (lbs/day) ¹	Existing NPDES Permit Influent Loadings Limits (lbs/day)		Actual Influent Loadings (lbs/day)	Comments
		Monthly Average	6-Month Median		
Metals					
Antimony	92	NL	NL	24.4	OK. Actual Influent Loading < Proposed MAHLs
Arsenic	8.41	5.00	NL	18.5	Not OK. Actual Influent Loading > Proposed MAHLs
Beryllium	Not Developed	0.52	NL	<MDL ²	
Cadmium	3.44	13.0	NL	1.4	OK. Actual Influent Loading < Proposed MAHLs
Chromium, Total	53.6	230	NL	5.1	OK. Actual Influent Loading < Proposed MAHLs
Copper	10.0	NL	32.0	10.0	OK. Actual Influent Loading = Proposed MAHLs
Cyanide	21.4	NL	16.0	0.004	OK. Actual Influent Loading < Proposed MAHLs
Lead	54.0	34.0	NL	33.4	OK. Actual Influent Loading < Proposed MAHLs
Mercury	0.77	NL	NL ³	0.73	OK. Actual Influent Loading < Proposed MAHLs
Molybdenum	70.2	NL	NL	0.83	OK. Actual Influent Loading < Proposed MAHLs
Nickel	45.5	NL	93	4.32	OK. Actual Influent Loading < Proposed MAHLs
Selenium	4.34	NL	NL	14.9	Not OK. Actual Influent Loading > Proposed MAHLs
Silver	19.1	NL	11.0	0.71	OK. Actual Influent Loading < Proposed MAHLs
Thallium, Total	44.2	NL	NL	26.7	OK. Actual Influent Loading < Proposed MAHLs
Zinc	17.1	220	NL	71.3	Not OK. Actual Influent Loading > Proposed MAHLs
Organics					
Chlorodibromomethane (Dibromochloromethane)	545	NL	NL	0.75	OK. Actual Influent Loading < Proposed MAHLs
Chloroform	2.41	NL	NL	1.33	OK. Actual Influent Loading < Proposed MAHLs
Phenol	680	NL	NL	1.19	OK. Actual Influent Loading < Proposed MAHLs
TCDD Equivalents	4.86E-06	NL	NL	4.44E-07	OK. Actual Influent Loading < Proposed MAHLs
Toluene	31,275	NL	NL	1.24	OK. Actual Influent Loading < Proposed MAHLs
Conventional					
Ammonia	208,064	NL	NL	7,298	OK. Actual Influent Loading < Proposed MAHLs
BOD5	133,825	NL	NL	81,941	OK. Actual Influent Loading < Proposed MAHLs
TSS	162,489	NL	NL	80,064	OK. Actual Influent Loading < Proposed MAHLs

¹ Monthly average.² Influent concentration below MDL.³ 1.1 lbs/day is instantaneous limit.

NL = No limit

5.0 CONCLUSIONS

A total of 22 pollutants were identified as POCs for the SBIWTP based on screening criteria described in the EPA Guidance Manual. The MAHLs were calculated for these POCs, compared to the present influent loadings, and presented in **Table 15**.

A comparison of the proposed MAHLs to the present loadings demonstrated that the headworks loadings for arsenic, selenium, zinc exceeded their respective MAHLs. The results indicate that reductions in the discharge of arsenic, selenium, and zinc to the sewerage system is required.

The higher present loadings for BOD5, TSS, and ammonia were mainly due to slightly higher concentrations of these pollutants in the plant influent. The plant should be able to treat these three (3) conventional pollutants with the slightly higher present loadings. See the recommendations below regarding recalculating MAHLs after the new plant upgrades are in operation.

5.1 Recommendations

The following items are recommended for USIBWC's consideration:

- Recalculate the MAHLs after the plant is upgraded (with new Equalization Tank and three (3) SSTs) and is in operation for one (1) to two (2) years with the new plant removal efficiencies.
- Continue to monitor the POCs that were evaluated.
- Establish pretreatment limits using the uniform concentration method or contributory flow method and based on the revised MAHLs with new plant operations. Develop local limits for arsenic, selenium, and zinc using EPA's Guidance Manual (2004).
- Request through Mexican government that OOMAPAS conduct an industrial pretreatment survey in Tijuana, Baja California.

6.0 REFERENCES

"Technical Memorandum – Design Report on Design Update/Modification for Secondary Treatment at the South Bay International Wastewater Treatment Plant," March 26, 2008, by S& B Infrastructure Ltd.

"Local Limit Development Guidance", EPA 833-R-04-002A, July 2004, United States Environmental Protection Agency.

"Local Limits Development Guidance Appendices", EPA 833-R-04-002B, July 2004, United States Environmental Protection Agency.

"Waste Discharge Requirements for the United States Section of the International Boundary and Water Commission, South Bay Wastewater International Wastewater Treatment Plant, Discharge to the Pacific Ocean via the South Bay Ocean Outfall", Order No. R9-2014-0009, NPDES No. CA0108928, June 26, 2014, by California Regional Water Quality Control Board San Diego Region.

Mexican Nom for Solid Waste (Biosolids), NOM-004-SEMARNAT-2002.