VII. Tijuana Interceptor Data Summary

Beginning in October 1991 the Metropolitan System began accepting sewage flows from the City of Tijuana, State of Baja California, Mexico through an interceptor service connection in San Ysidro, CA. Up to 13 MGD was received from Mexico via the Tijuana Emergency Connection (Interceptor) and was included in the total flows to the Pt. Loma WWTP.

When flow is established via the interceptor, samples are taken at the site of IBWC meter (see Fig. 1. next page) using an ISCO autosampler (volatile organic samples are grabs). The sampling schedule is maintained so as to match the NPDES monitoring at the Pt. Loma WWTP as closely as possible. Weekly samples are taken on the same day as the weekly samples at the Pt. Loma WWTP.

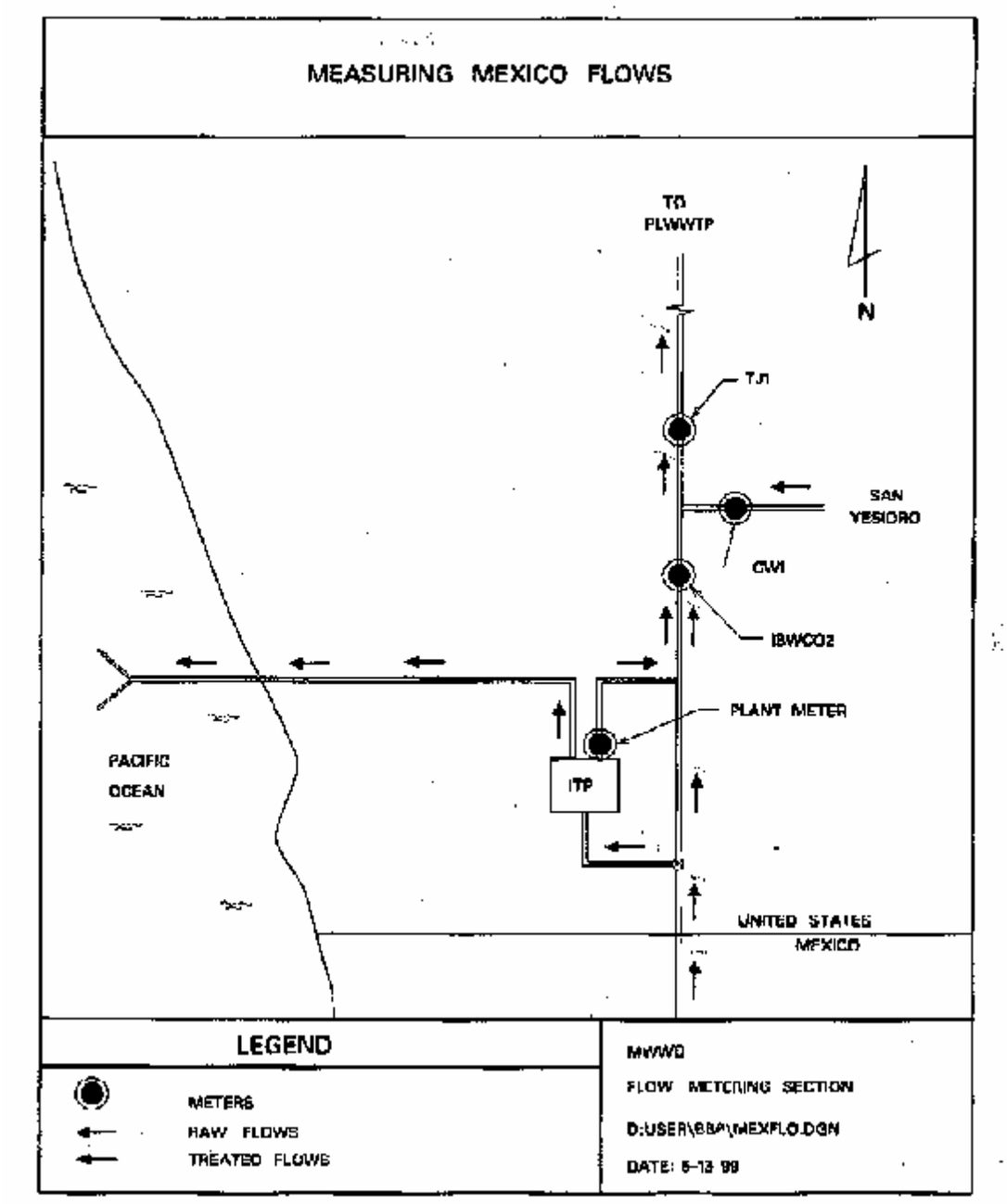
a. Flows

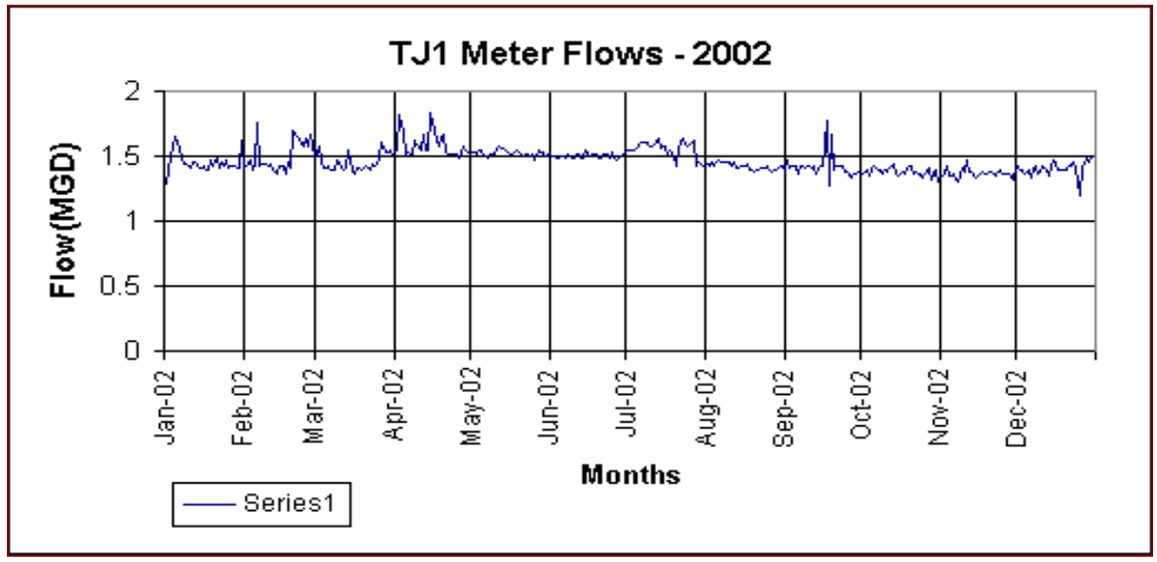
Flow measurements for the Tijuana Interceptor.

Historically, the flows for the Tijuana Interceptor have included the flow meter readings from the TJ1 and IBWC02 meters (see Figure 1.). The IBWC02 meter measured all flows through the interceptor and included only sewage flows to the Metro system from Mexico. However, the IBWC02 meter was disconnected by the International Boundary Water Commission as of December 1st, 2000 and there is no intent for re-establishing it. No data from this meter was submitted in 2002. The IBWC staff have repeatedly stated that it is their intention that no Tijuana wastewater or International Treatment Plant effluent will be discharged into the interceptor. Flow data for 2002 indicates that the interceptor carried no sewage flows from those sources for the entire year.

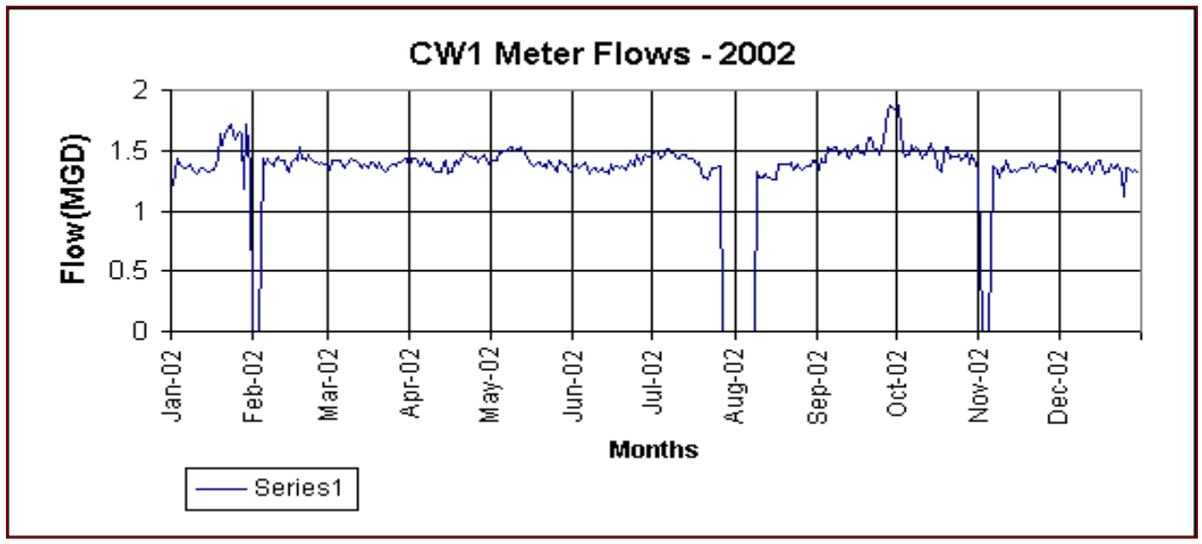
The TJ1 meter has measured flows through the interceptor, only it included the contributions from the San Ysidro lateral as well as the flows from Mexico or the IWTP if discharged. A new meter (designated CW1) was installed and in operation as of June 1999. The interceptor flow has consisted of treated wastewater effluent from the South Bay International Treatment Plant and excess raw wastewater flows from Mexico, if any. The TJ1 flows minus the CW1 flows would nominally yield flows equal to that of the IBWC02 meter, i.e. the emergency connection flows from Mexico. We have included a table and graph of the flows calculated by subtracting the CW1 meter readings from the TJ1 meter readings. It is felt that this gives the most reliable data on flows from the Tijuana Intercept.

Figure 1. Tijuana Interceptor and location of flow meters.

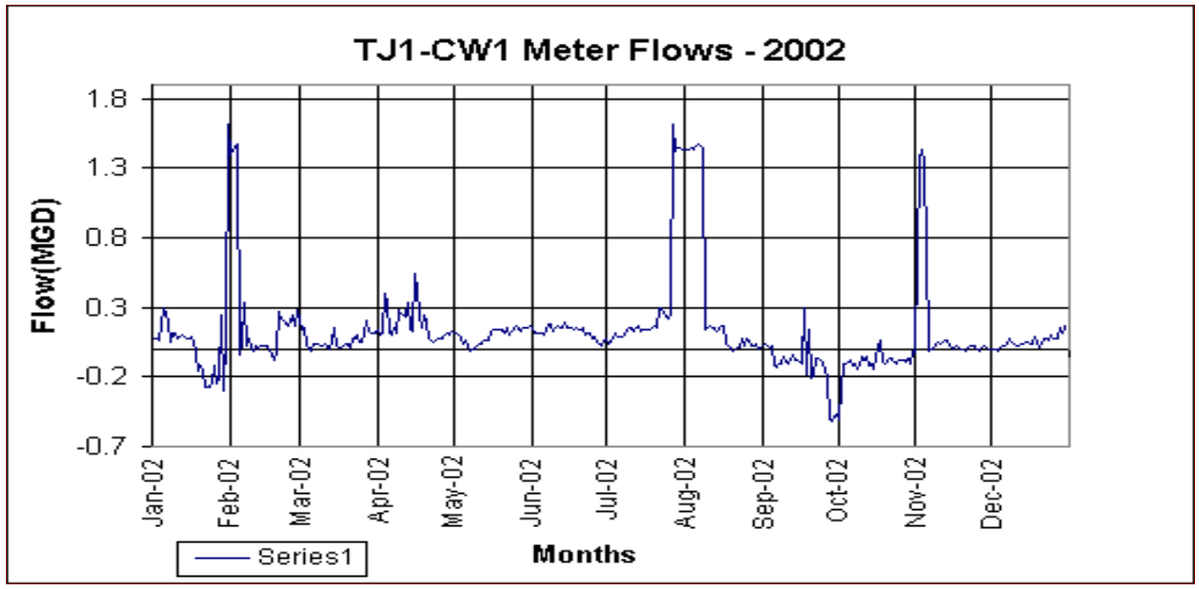




Day	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	1.29	1.39	1.48	1.54	1.53	1.53	1.54	1.44	1.38	1.37	1.33	1.43	
2	1.4	1.43	1.58	1.55	1.53	1.5	1.55	1.43	1.47	1.38	1.37	1.4	
3	1.5	1.47	1.47	1.82	1.51	1.48	1.55	1.45	1.41	1.4	1.43	1.39	
4	1.56	1.39	1.41	1.7	1.54	1.49	1.55	1.43	1.42	1.35	1.35	1.37	
5	1.65	1.44	1.41	1.5	1.54	1.5	1.56	1.46	1.42	1.39	1.35	1.4	
6	1.62	1.76	1.42	1.53	1.51	1.5	1.6	1.47	1.37	1.42	1.36	1.34	
7	1.56	1.42	1.4	1.52	1.49	1.48	1.6	1.46	1.42	1.4	1.34	1.41	
8	1.44	1.44	1.4	1.51	1.52	1.52	1.61	1.45	1.43	1.39	1.31	1.43	
9	1.44	1.44	1.47	1.62	1.52	1.48	1.61	1.46	1.41	1.37	1.41	1.37	
10	1.43	1.43	1.45	1.59	1.52	1.48	1.58	1.45	1.42	1.39	1.38	1.38	
11	1.41	1.44	1.43	1.55	1.55	1.51	1.57	1.42	1.41	1.38	1.47	1.43	
12	1.45	1.41	1.4	1.66	1.57	1.51	1.61	1.45	1.42	1.41	1.38	1.4	
13	1.45	1.38	1.41	1.54	1.56	1.48	1.64	1.41	1.36	1.44	1.38	1.35	
14	1.41	1.36	1.54	1.55	1.54	1.49	1.56	1.41	1.41	1.38	1.36	1.41	
15	1.41	1.42	1.39	1.84	1.53	1.54	1.57	1.43	1.43	1.35	1.34	1.47	
16	1.43	1.43	1.37	1.77	1.52	1.5	1.57	1.43	1.43	1.36	1.36	1.46	
17	1.4	1.37	1.41	1.62	1.51	1.51	1.52	1.44	1.78	1.38	1.38	1.4	
18	1.4	1.45	1.41	1.57	1.53	1.52	1.54	1.4	1.28	1.37	1.36	1.4	
19	1.47	1.41	1.39	1.63	1.54	1.51	1.5	1.39	1.66	1.41	1.36	1.39	
20	1.42	1.69	1.41	1.67	1.51	1.49	1.42	1.38	1.4	1.43	1.38	1.4	
21	1.49	1.68	1.42	1.55	1.5	1.49	1.55	1.4	1.42	1.37	1.38	1.42	
22	1.41	1.65	1.4	1.51	1.51	1.52	1.6	1.41	1.43	1.38	1.35	1.43	
23	1.45	1.61	1.44	1.51	1.51	1.51	1.63	1.41	1.43	1.36	1.38	1.45	
24	1.42	1.57	1.42	1.51	1.5	1.49	1.6	1.41	1.38	1.36	1.4	1.41	
25	1.47	1.64	1.44	1.52	1.52	1.53	1.58	1.42	1.38	1.34	1.37	1.2	
26	1.41	1.57	1.49	1.48	1.47	1.48	1.61	1.4	1.37	1.37	1.36	1.43	
27	1.43	1.67	1.6	1.53	1.55	1.47	1.62	1.38	1.34	1.41	1.36	1.44	
		1.60											
28	1.42	2	1.53	1.58	1.53	1.48	1.42	1.4	1.36	1.32	1.37	1.48	
29	1.41		1.53	1.54	1.53	1.51	1.45	1.41	1.37	1.36	1.32	1.45	
30	1.41		1.55	1.51	1.5	1.51	1.44	1.42	1.38	1.39	1.42	1.49	YEAR
31	1.62		1.5		1.5		1.43	1.42		1.3		1.49	SUMMARY
AVE	1.45	1.50	1.45	1.58	1.52	1.50	1.55	1.42	1.42	1.38	1.37	1.41	1.46
MIN	1.29	1.36	1.37	1.48	1.47	1.47	1.42	1.38	1.28	1.3	1.31	1.2	1.20
MAX	1.65	1.76	1.6	1.84	1.57	1.54	1.64	1.47	1.78	1.44	1.47	1.49	1.84
		41.9	44.9	47.5	47.1			44.1		42.7	41.1	43.7	
Total	45.08	6	7	2	9	45.01	48.18	4	42.59	3	1	2	534.20



Day	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	1.22		1.34	1.44	1.41	1.37	1.5		1.34	1.87	0.68	1.43	
2	1.32		1.42	1.44	1.42	1.38	1.5		1.44	1.67		1.4	
3	1.44		1.42	1.424	1.42	1.36	1.48		1.4	1.51		1.4	
4	1.38	1.43	1.41	1.37	1.5	1.37	1.43		1.4	1.45		1.36	
5	1.35	1.39	1.42	1.39	1.48	1.4	1.47		1.53	1.47	0.63	1.38	
6	1.36	1.43	1.38	1.43	1.49	1.37	1.51		1.5	1.54	1.37	1.32	
7	1.37	1.4	1.36	1.37	1.5	1.3	1.51		1.53	1.51	1.34	1.37	
8	1.39	1.37	1.38	1.4	1.52	1.34	1.48		1.53	1.53	1.27	1.36	
9	1.33	1.43	1.44	1.34	1.52	1.35	1.46	1.32	1.46	1.49	1.36	1.32	
10	1.31	1.45	1.41	1.33	1.5	1.32	1.43	1.28	1.5	1.44	1.34	1.35	
11	1.33	1.42	1.41	1.32	1.51	1.34	1.44	1.27	1.51	1.46	1.42	1.4	
12	1.35	1.41	1.4	1.32	1.53	1.36	1.46	1.3	1.46	1.46	1.32	1.36	
13	1.36	1.36	1.36	1.4	1.5	1.33	1.47	1.28	1.44	1.56	1.32	1.31	
14	1.33	1.33	1.38	1.42	1.48	1.3	1.43	1.27	1.49	1.49	1.34	1.36	
15	1.33	1.4	1.37	1.3	1.42	1.39	1.43	1.26	1.52	1.49	1.33	1.42	
16	1.34	1.43	1.36	1.33	1.38	1.34	1.43	1.26	1.54	1.35	1.36	1.42	
17	1.34	1.41	1.4	1.38	1.37	1.37	1.38	1.39	1.48	1.32	1.35	1.36	
18	1.43	1.53	1.38	1.42	1.39	1.36	1.4	1.38	1.46	1.46	1.36	1.31	
19	1.63	1.43	1.35	1.38	1.4	1.37	1.33	1.38	1.52	1.52	1.36	1.33	
20	1.54	1.42	1.4	1.46	1.37	1.35	1.27	1.39	1.61	1.52	1.4	1.39	
21	1.64	1.46	1.35	1.48	1.39	1.34	1.26	1.39	1.61	1.44	1.38	1.35	
22	1.68	1.44	1.32	1.46	1.35	1.42	1.31	1.4	1.5	1.45	1.32	1.35	
23	1.72	1.42	1.34	1.45	1.41	1.39	1.36	1.34	1.51	1.45	1.35	1.39	
24	1.66	1.4	1.37	1.44	1.37	1.37	1.36	1.38	1.47	1.47	1.37	1.31	
25	1.59	1.39	1.39	1.45	1.35	1.46	1.36	1.35	1.52	1.42	1.37	1.12	
26	1.66	1.4	1.37	1.4	1.32	1.39	1.37	1.34	1.58	1.45	1.38	1.35	
27	1.64	1.39	1.4	1.43	1.42	1.43		1.36	1.83	1.5	1.35	1.36	
28	1.18	1.38	1.4	1.46	1.38	1.46		1.37	1.88	1.38	1.35	1.33	
29	1.71		1.42	1.44	1.38	1.45		1.37	1.86	1.46	1.32	1.34	
30	1.35		1.44	1.382	1.34	1.44		1.42	1.85	1.4	1.42	1.33	YEAR
31			1.353		1.33			1.41		1.33		1.31	SUMMARY
AVE	1.44	1.41	1.39	1.40	1.42	1.37	1.42	1.34	1.54	1.48	1.30	1.35	1.41
MIN	1.18	1.33	1.32	1.3	1.32	1.3	1.26	1.26	1.34	1.32	0.63	1.12	0.63
MAX	1.72	1.53	1.44	1.48	1.53	1.46	1.51	1.42	1.88	1.87	1.42	1.43	1.88
		35.3			44.1			30.9		45.8	35.1	41.8	
Total	43.28	2	42.94	42.06	5	41.22	36.83	1	46.27	6	6	9	485.89



Day	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	0.07	1.39	0.14	0.1	0.12	0.16	0.04	1.44	0.04	-0.5	0.65	0	
2	0.08	1.43	0.16	0.11	0.11	0.12	0.05	1.43	0.03	-0.29	1.37	0	
3	0.06	1.47	0.05	0.396	0.09	0.12	0.07	1.45	0.01	-0.11	1.43	-0.01	
4	0.18	-0.04	0	0.33	0.04	0.12	0.12	1.43	0.02	-0.1	1.35	0.01	
5	0.3	0.05	-0.01	0.11	0.06	0.1	0.09	1.46	-0.11	-0.08	0.72	0.02	
6	0.26	0.33	0.04	0.1	0.02	0.13	0.09	1.47	-0.13	-0.12	-0.01	0.02	
7	0.19	0.02	0.04	0.15	-0.01	0.18	0.09	1.46	-0.11	-0.11	0	0.04	
8	0.05	0.07	0.02	0.11	0	0.18	0.13	1.45	-0.1	-0.14	0.04	0.07	
9	0.11	0.01	0.03	0.28	0	0.13	0.15	0.14	-0.05	-0.12	0.05	0.05	
10	0.12	-0.02	0.04	0.26	0.02	0.16	0.15	0.17	-0.08	-0.05	0.04	0.03	
11	0.08	0.02	0.02	0.23	0.04	0.17	0.13	0.15	-0.1	-0.08	0.05	0.03	
12	0.1	0	0	0.34	0.04	0.15	0.15	0.15	-0.04	-0.05	0.06	0.04	
13	0.09	0.02	0.05	0.14	0.06	0.15	0.17	0.13	-0.08	-0.12	0.06	0.04	
14	0.08	0.03	0.16	0.13	0.06	0.19	0.13	0.14	-0.08	-0.11	0.02	0.05	
15	0.08	0.02	0.02	0.54	0.11	0.15	0.14	0.17	-0.09	-0.14	0.01	0.05	
16	0.09	0	0.01	0.44	0.14	0.16	0.14	0.17	-0.11	0.01	0	0.04	
17	0.06	-0.04	0.01	0.24	0.14	0.14	0.14	0.05	0.3	0.06	0.03	0.04	
18	-0.03	-0.08	0.03	0.15	0.14	0.16	0.14	0.02	-0.18	-0.09	0	0.09	
19	-0.16	-0.02	0.04	0.25	0.14	0.14	0.17	0.01	0.14	-0.11	0	0.06	
20	-0.12	0.27	0.01	0.21	0.14	0.14	0.15	-0.01	-0.21	-0.09	-0.02	0.01	
21	-0.15	0.22	0.07	0.07	0.11	0.15	0.29	0.01	-0.19	-0.07	0	0.07	
22	-0.27	0.21	0.08	0.05	0.16	0.1	0.29	0.01	-0.07	-0.07	0.03	0.08	
23	-0.27	0.19	0.1	0.06	0.1	0.12	0.27	0.07	-0.08	-0.09	0.03	0.06	
24	-0.24	0.17	0.05	0.07	0.13	0.12	0.24	0.03	-0.09	-0.11	0.03	0.1	
25	-0.12	0.25	0.05	0.07	0.17	0.07	0.22	0.07	-0.14	-0.08	0	0.08	
26	-0.25	0.17	0.12	0.08	0.15	0.09	0.24	0.06	-0.21	-0.08	-0.02	0.08	
27	-0.21	0.28	0.2	0.1	0.13	0.04	1.62	0.02	-0.49	-0.09	0.01	0.08	
28	0.24	0.222	0.13	0.12	0.15	0.02	1.42	0.03	-0.52	-0.06	0.02	0.15	
29	-0.3		0.11	0.1	0.15	0.06	1.45	0.04	-0.49	-0.1	0	0.11	
30	0.06		0.11	0.128	0.16	0.07	1.44	0	-0.47	-0.01	0	0.16	YEAR
31	1.62		0.147		0.17		1.43	0.01		-0.03		0.18	SUMMARY
AVE	0.06	0.24	0.07	0.18	0.10	0.13	0.37	0.43	-0.12	-0.10	0.20	0.06	0.13
MIN	-0.3	-0.08	-0.01	0.05	-0.01	0.02	0.04	-0.01	-0.52	-0.5	-0.02	-0.01	-0.52
MAX	1.62	1.47	0.2	0.54	0.17	0.19	1.62	1.47	0.3	0.06	1.43	0.18	1.62
Total	1.8	6.642	2.027	5.464	3.04	3.79	11.35	13.23	-3.68	-3.13	5.95	1.83	48.31

NOTE: Missing values indicate that the meters were Out of Service and therefore the flow data was not available.

b. Tijuana Interceptor Data

POINT LOMA WASTEWATER TREATMENT PLANT
ANNUAL TIJUANA INTERCEPTOR

From: 01-JAN-2002 to: 31-DEC-2002

NOTE: According to the International Boundary Water Commission's staff reports and our flow meter section's data, there was no flow of wastewater through the Tijuana Interceptor for 2002.