Development of Draft Drought and Conservation Policies

Recommendation #1: Remove Increment-of-Use Effluent Limits for TDS

1) Unnecessary
   - A. Redundant with effluent limits to comply with water quality objectives
   - B. Redundant with mandatory antidegradation review at permit adoption
   - C. Redundant with pretreatment requirements and Local Limits
   - D. Insufficient by themselves (see Rancho Caballero decision; Res. 73-4)

2) Obsolete
   - A. Based on inefficient water use practices from the 1960's (>100 gpcd)
   - B. Wider diversity of water supply sources make it more difficult to track

3) Counterproductive
   - A. Conflicts with other public policy mandates re: water conservation
   - B. Complicates and restricts wastewater treatment operations *(odor control, nutrient control, metal control, disinfection)*

4) Optional
   - A. No Increment-of-Use Limit in Yucaipa's permit (R8-2015-0027)
   - B. Other SoCal Regional Boards do not impose Increment-of-Use Limits
   - C. Central Valley Board (Region #5) is proposing to eliminate similar limits

Alternative Options:

1) Update estimated Increment-of-Use to account for modern water conservation
2) Authorize use of long-term average (10 years) to credit discharges under limit
3) Temporarily suspend Increment-of-Use Limits during defined drought conditions

Table 7. Effluent Limitations Applicable at DP-003 only

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
2,3,7,8-TCDD (Dioxin)	µg/L	0.000000014	–	0.000000028
Chlorodibromomethane	µg/L	34	–	68

(4) DP-004 with compliance measured at Monitoring Location M-004, as described in the attached MRP:

Table 8. Effluent Limitations Applicable at DP-004 only

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
Total Recoverable Copper	µg/L	11	–	17
Chlorodibromomethane	µg/L	34		68
Dichlorobromomethane	µg/L	46		67

b. **Percent Removal:** The average monthly percent removal of BOD 5-day 20°C and total suspended solids shall not be less than 85 percent. (See Compliance Determination Section VII.N.)

c. **TDS Limitations** - The lower of the two total dissolved solids (TDS) limits specified in (1) or (2), below, shall be the effluent limit for TDS:.

(1) The 12-month flow weighted running average TDS constituent concentration and mass emission rates shall not exceed 550 mg/L and 366,960 lbs/day[2], respectively. This limitation may be met on an agency-wide basis using flow weighted averages of the discharges from the Discharger's RP-1, RP-4, RP-5 and CCWRF, or

(2) The 12-month flow weighted running average TDS concentration shall not exceed the 12-month flow weighted running average TDS concentration in the water supply by more than 250 mg/L[3]. This limitation may be met on an agency-wide basis using flow weighted averages of the water supplied to the Discharger's RP-1, RP-4, RP-5 and CCWRF service areas.

d. The 12-month flow weighted running average Total Inorganic Nitrogen (TIN) concentration and mass emission rates shall not exceed 8 mg/L and 5,338

[2] *Based on wasteload allocation volume of 80 mgd and concentration of 550 mg/L.*
[3] *See Section VII.L. - Compliance Determination.*

c. Total Dissolved Solids (TDS):

1) The 12-month flow weighted running average TDS concentration shall not exceed 650 mg/L, unless the Discharger demonstrates to the satisfaction of the Regional Board's Executive Officer that:

a) Discharges in excess of the TDS limit are due to the quality of water supply sources utilized in the Discharger's service area, and that all reasonable steps, as agreed upon by the Executive Officer, have been taken to ensure that the best quality supplies are obtained and utilized in the Discharger's service area; and/or

b) Discharges in excess of the TDS limits are due to chemical additions in the treatment process needed to meet waste discharge requirements, and the Discharger has taken all steps to optimize chemical additions so as to minimize the increases; and

c) The Discharger implements a plan, approved by the Executive Officer, to offset discharges in excess of the TDS limit.

2) The 12-month flow weighted running average TDS concentration of the discharge shall not exceed the 12-month flow weighted average TDS concentration in the water supply by more than 250 mg/L, unless the Discharger demonstrates to the satisfaction of the Regional Board's Executive Officer that TDS discharges in excess of the 250 mg/L mineral increment are due solely to chemical additions in the treatment process needed to meet waste discharge requirements, and the Discharger has taken all steps to optimize chemical additions so as to minimize the TDS increases.

d. Total Inorganic Nitrogen (TIN):

The 12-month flow weighted running average TIN concentration of the discharge shall not exceed 10 mg/L, unless the Discharger implements a plan, with the approval of the Executive Officer, to offset TIN discharges in excess of the TIN limits.

e. Tertiary Treated Wastewater:

The discharge shall at all times be adequately oxidized, filtered, and disinfected tertiary treated wastewater and shall meet the following limitations measured at monitoring locations M-002 to M-007 as described in Attachment E.

1) Turbidity:

When filtration is through natural undisturbed soils or a bed of filter media, the turbidity of the filtered wastewater shall not exceed any of the following:

a) An average of 2 NTU within a 24-hour period;

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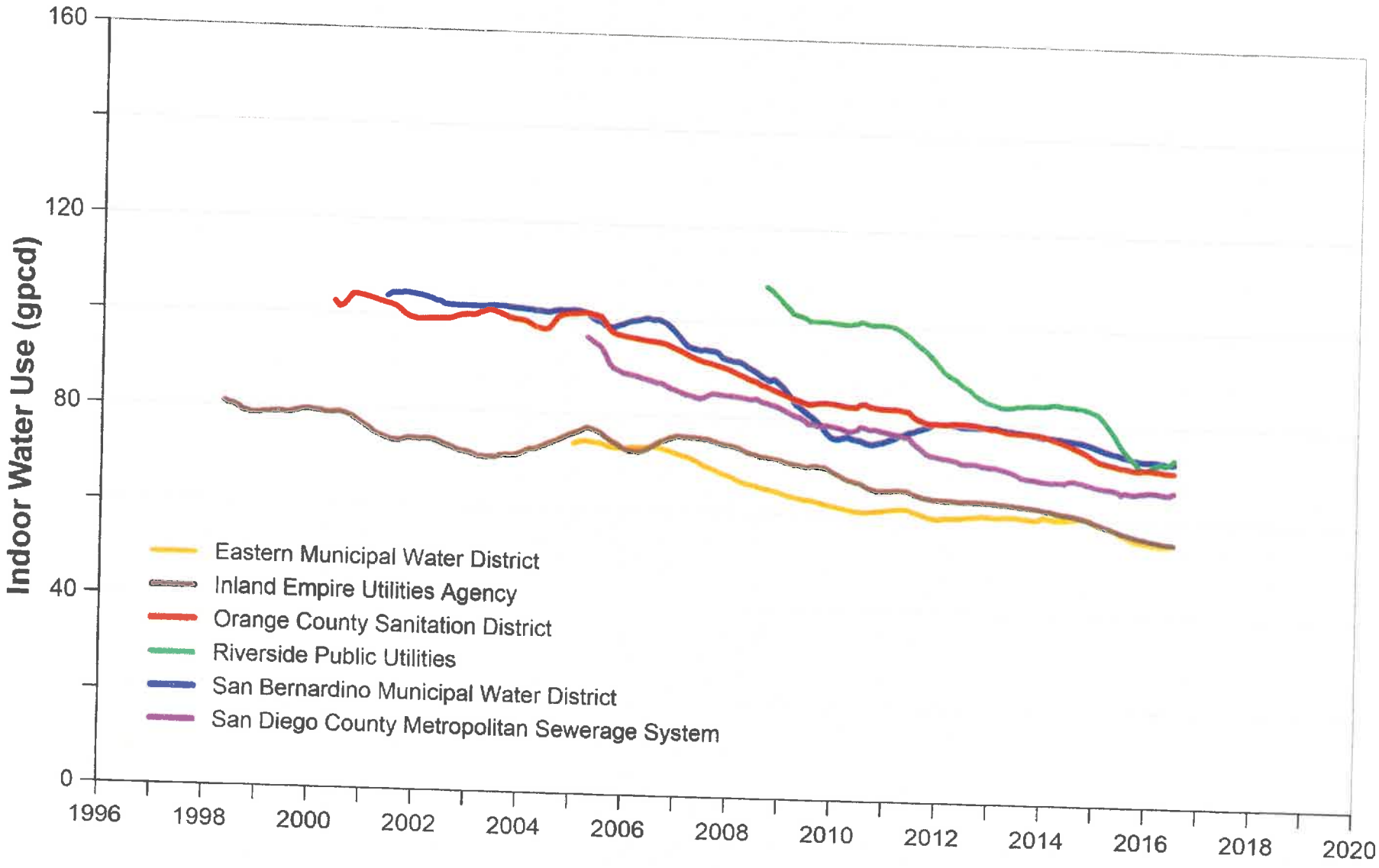

Figure 3

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3/29/18

SOUTHERN CALIFORNIA SALINITY COALITION

Indoor Per Capita Water Use Trends

their study that the split is about 53 percent outdoors and 47 percent indoors for a sample of 735 single-family homes from 10 water agencies in California. In the 2017 study, the total annual water use was 362 gallons per household per day (gphd). Based on an average occupancy rate of 2.94 persons per home, the per capita total water use was 123 gallons per capita per day (gpcd); at 47 percent, the indoor use was 57.9 gpcd.

Mayer et al. (1999) described seven main indoor end uses of water, along with the per capita water use for each end use (Table 2).

Table 2. Seven Main Indoor End Uses

Indoor End Use of Water	Average Per Capita Water Use (gpcd)	Percentage of Use
Toilets	18.5	26.7%
Clothes washers	15	21.7%
Showers	11.6	16.8%
Leaks and other uses	11.1	15.9%
Faucets	10.9	15.7%
Baths	1.2	1.7%
Dishwashers	1.0	1.4%

Source: Mayer et al., 1999
gpcd = Gallons per capita per day

The total average indoor water use in Mayer et al. (1999) was 69.3 gpcd—across 1,188 study homes in 12 study sites. The range of total indoor water use was 57.1 gpcd in Seattle, Washington to 83.5 gpcd in Eugene, Oregon. In the period between the completion of the Mayer et al. (1999) study (date range from 1996 through 1998) and the DeOreo et al. (2017) study (date range 2005 through 2010), there was a 13 percent reduction in indoor water use. Toilets represent the largest indoor water use category, and DeOreo et al. (2017) report a 60 percent market penetration (i.e., by 2010, 60 percent of the units met ultra-low flow toilet [ULFT] standards of 1.6 gallons per flush [gpf]). Clothes washers using 30 gallons per load or less were installed in 30 percent of homes. Four of the categories (showers, faucets, leaks, and baths) showed increased use during this period, and dishwater and miscellaneous uses remained unchanged.

drought resilience. This executive order was designed to incorporate the lessons learned from the temporary statewide emergency water restrictions and apply them to establish a long-term water conservation framework. Legislation was passed on February 16, 2017 to update the Water Code (AB-968 Section 10608.25) (CED, 2017a), wherein urban retail water suppliers shall develop a water efficiency target for 2025 that meets either 75 percent of urban retail water suppliers base daily per capita water use calculated in Section 10608.2 or establish a retail-level efficiency target that among several factors is based upon population multiplied by 55 gpcd.

Table 4 summarizes water conservation legislation in California since the passage of the Water Conservation Act of 2009.

Table 4. California Legislation on Water Conservation

Date Issued	Type of Legislation	Reference Number	Summary of Legislation
November 10, 2009	Senate Bill	SB-X7-7	Goal to obtain a 20% reduction in urban per capita water use by December 31, 2020. Commonly referred to as 20x2020 Water Conservation Plan (DWR, 2009).
January 17, 2014	Emergency Proclamation	Proclamation No. 1-17-2014	Governor proclaimed a state of emergency throughout California due to severe drought conditions, asking Californians to reduce their water usage by 20% (CED, 2014a).
April 25, 2014	Executive Order	B-26-14	Governor proclaimed a continued state of emergency throughout California due to ongoing drought. (CED, 2014b)
December 22, 2014	Executive Order	B-28-14	Extension of the emergency proclamations through May 31, 2016 (CED, 2014c).
April 1, 2015	Executive Order	B-29-15	The State Water Resources Control Board imposed restrictions to achieve statewide 25% reduction in potable water usage through February 2016 (CED, 2015).
May 9, 2016	Executive Order	B-37-16	Commonly referred to as "Making Water Conservation A California Way of Life," this order builds upon the temporary statewide emergency water restrictions to establish a long-term water conservation framework (CED, 2016).
February 16, 2017	Assembly Bill	AB-968 Section 10608.25	An update to the California Water Code that establishes a retail-level efficiency based upon population multiplied by 55 gpcd, among several factors (CED, 2017a).
April 7, 2017	Executive Order	B-40-17	Recantation of the April 25, 2014 Emergency Proclamation and Executive Orders B-26-14, B-28-14, B-29-15, B-36-15. The continuation of B-37-15 of "Making Conservation A Way of Life" to remain in full effect with some modifications (CED, 2017b).

1.3 Impacts of Drought Water Conservation on Wastewater Conveyance Systems and WWTP Operations

The impact of indoor water conservation on wastewater flows—and, by extension, WWTP operations and discharge water quality—has been discussed for decades. Prompted by the severe drought in California in 1976 to 1977, the EPA conducted a study to quantify the effects of water conservation on the reduction of wastewater influent flows to WWTPs (U.S. EPA, 1980). The drought-induced reductions in flow were used as a surrogate for projecting the impact of conservation measures.

The study noted that "during the last 10 years, urban water conservation has attracted much attention and has widely become to be considered as an essential part of effectively managing our water resources" (U.S. EPA, 1980). Some of the indoor water conservation measures employed in the mid- to late-1970s include ". . . installing low-flow faucet aerators, low-flow shower heads or flow restrictors, and 'water dams' or plastic bottles in toilet tanks to reduce the amount of water used for flushing" (U.S. EPA, 1980).

Table 5 shows the theoretical increase in total dissolved solids (TDS) concentrations due to conservation measures. This analysis assumes an equivalent salt mass load, but with a reduction in the volume of wastewater with an initial TDS concentration of 300 milligrams per liter (mg/L).

Table 5. Incremental TDS Attributable to Reduction in Indoor Water Use

Percent Reduction in Indoor Water Use	TDS Pickup Due to Water Conservation [a] (mg/L)	Incremental TDS Increase [b] (mg/L)
10	333	33
20	375	75
30	429	129
35	462	162

Source: U.S. EPA (1980)

[a] From a source water total dissolved solids (TDS) concentration of 300 milligrams per liter (mg/L); for example: 300/0.9 = 333 mg/L

[b] For example: 333 – 300 = 33 mg/L

This analysis considered a series of research questions, the purpose of which is to provide a quantitative understanding of the relationships among variables such as salt concentrations in municipal influent and treated effluent, drought, self-regenerating water softeners (SRWS), and the mandated implementation of water conservation practices that reduce per capita water use. The findings from this research will be of particular value to water supply and wastewater treatment and recycling agencies as they consider how changes in water quality and quantity may impact their ability to provide reliable, high-quality drinking water while complying with waste discharge requirements.

Two variables (volume-weighted source water TDS and indoor per capita water use) can predict with a high degree of statistical significance the TDS concentration of WWTP influent water use (Figure ES-2). However, the volume-weighted source water TDS concentration is the significant determiner of influent TDS. Source TDS explains more of the variability in influent/effluent TDS than any other factor, including decreased indoor water use, for the following reasons.

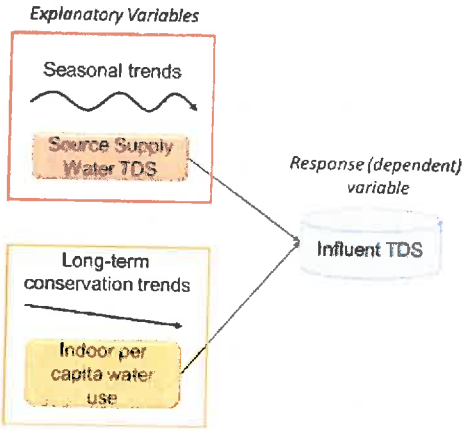
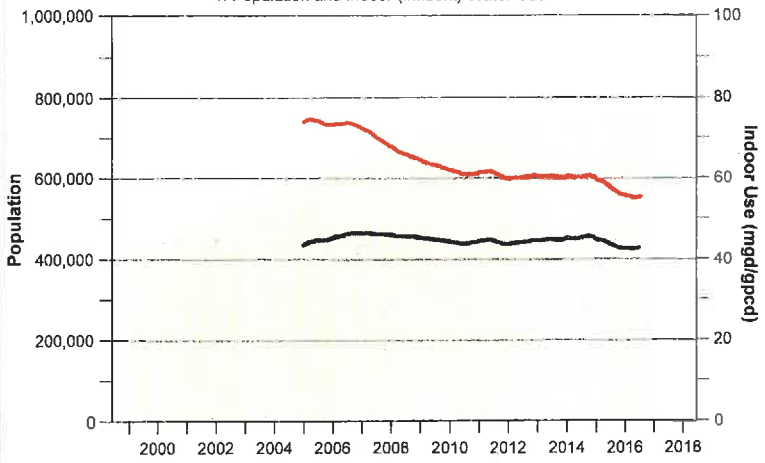
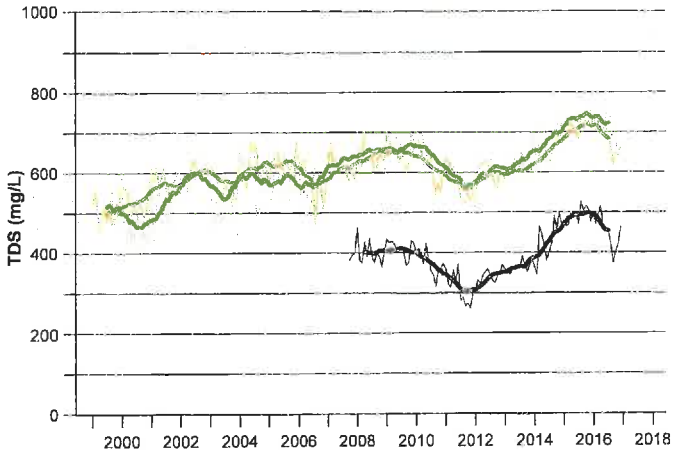


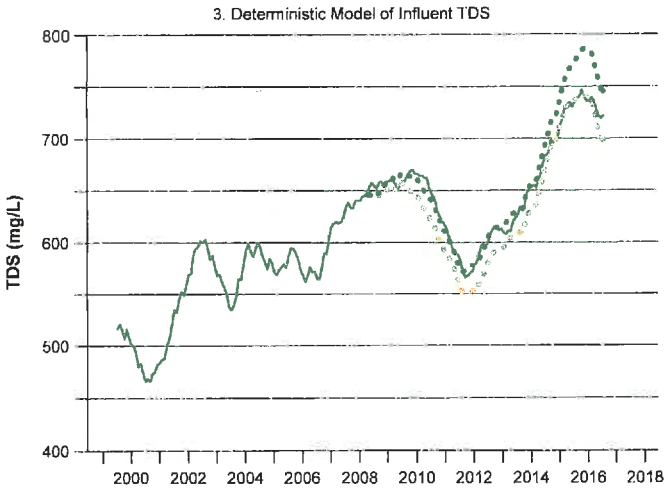
Figure ES-2. Model Variables for Influent TDS

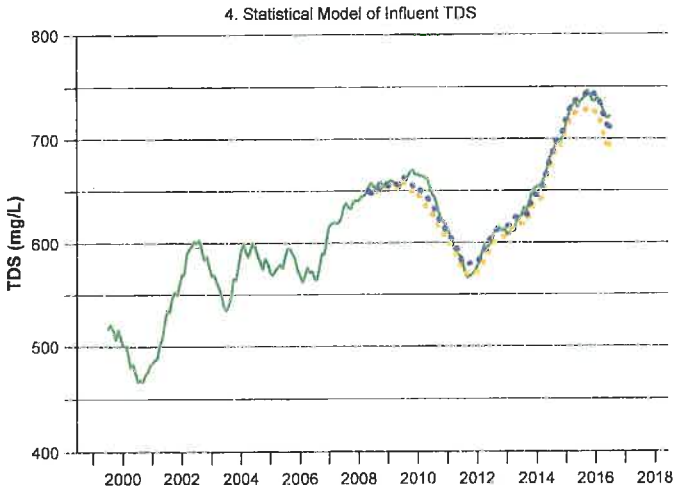
- Source water supply trends are often cyclical, corresponding with climatic cycles such as the El Niño Southern Oscillation. Drought conditions negatively impact surface water quality and therefore imported water quality. TDS concentrations in the California State Water Project and Colorado River Aquifer can vary by 200 to 300 milligrams per liter (mg/L) from wet years to dry years.
- While this explanatory variable has a lower effect in the determination of influent TDS, long-term conservation accounts for an estimated increase of 1.2 mg/L to 1.7 mg/L in TDS for every 1.0 gallon per capita per day (gpcd) decrease in indoor per capita water use.

An unintended consequence of indoor water conservation is that for every 1 gpcd decline in indoor water use, there is a 1.2 to 1.7 mg/L increase in WWTP influent TDS.









Explanation

1. Population and Indoor Water Use
   - Population
   - Per capita gallons per day (gpcd)
   - Million gallons per day (mgd)
2. Measured TDS
   - Monthly effluent TDS
   - Monthly source TDS
   - Monthly influent TDS
   - 12-Month average of effluent TDS
   - 12-Month average of source TDS
   - 12-Month average of influent TDS
3. Deterministic Model
   - Measured 12-month average of influent TDS
   - Deterministic model: actual flow (70-55) gpcd
   - Deterministic model: constant flow (70) gpcd
4. Statistical Model
   - Measured 12-month average of influent TDS
   - Statistical model: actual flow (70-55) gpcd
   - Statistical model: constant flow (70) gpcd

ITDS Multiple Linear Regression Results

```
Coefficients:
             Estimate Std. Error t value Pr(>|t|)
(Intercept) 423.18995   22.02623  19.213  < 2e-16 ***
STDS          0.93656    0.01419  66.021  < 2e-16 ***
IGPCD        -1.65462    0.31497  -5.253 8.85e-07 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 7.233 on 97 degrees of freedom
Multiple R-squared:  0.979,     Adjusted R-squared:  0.9786
F-statistic:  2260 on 2 and 97 DF,  p-value: < 2.2e-16
```

SOUTHERN CALIFORNIA SALINITY COALITION

EMWD Combined Summary of Results: Indoor Water Use and TDS Trends

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3/22/2018 DB17.1179

Appendix B1

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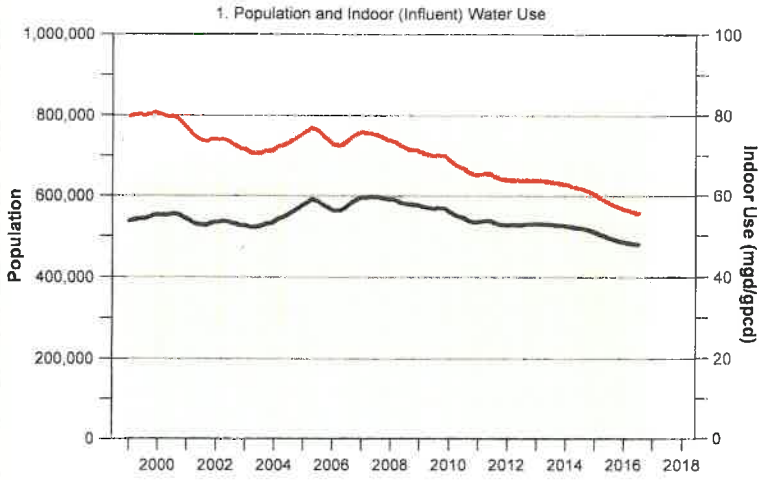
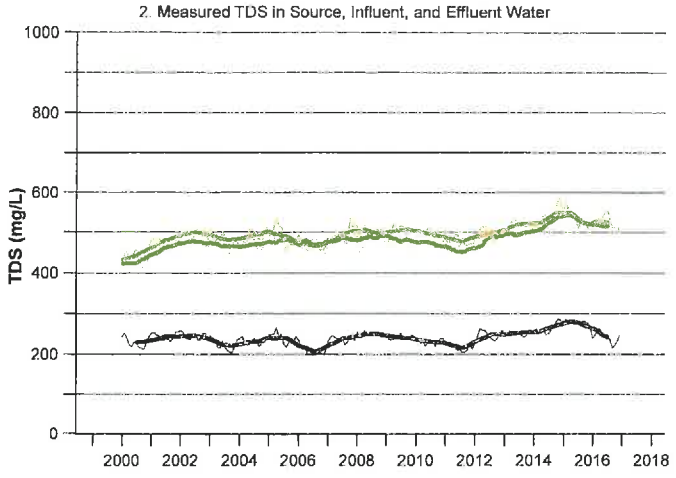
Table 9a. EMWD Statistical Model Matrix for Influent TDS

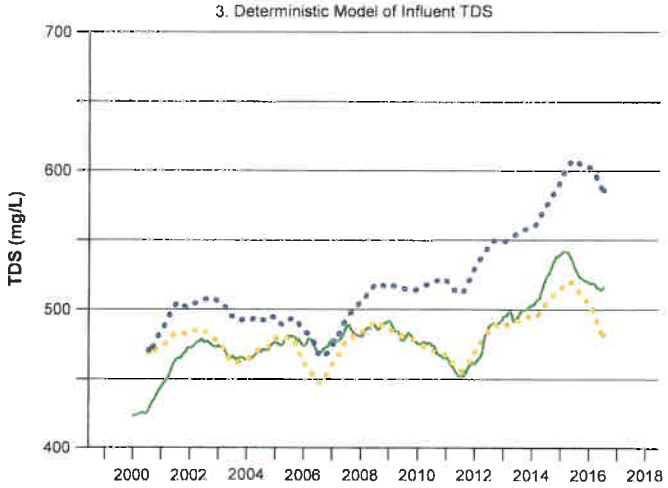
Indoor Water Use (gpcd)	Supply Water Quality TDS (mg/L)																																		
	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	575	600	625	650	675	700	725	750	775	800	825	850	875	900	925	950	975	1,000
40	524	545	566	587	608	629	650	671	692	713	733	754	775	796	817	838	859	880	901	922	943	964	984	1,005	1,026	1,047	1,068	1,089	1,110	1,131	1,152	1,173	1,194
42	521	542	563	584	605	626	646	667	688	709	730	751	772	793	814	835	856	877	897	918	939	960	981	1,002	1,023	1,044	1,065	1,086	1,107	1,128	1,148	1,169	1,190
44	518	539	560	580	601	622	643	664	685	706	727	748	769	790	810	831	852	873	894	915	936	957	978	999	1,020	1,041	1,061	1,082	1,103	1,124	1,145	1,166	1,187
46	514	535	556	577	598	619	640	661	682	703	724	744	765	786	807	828	849	870	891	912	933	954	974	995	1,016	1,037	1,058	1,079	1,100	1,121	1,142	1,163	1,184
48	511	532	553	574	595	616	637	657	678	699	720	741	762	783	804	825	846	867	888	908	929	950	971	992	1,013	1,034	1,055	1,076	1,097	1,118	1,139	1,159	1,180
50	508	529	550	571	591	612	633	654	675	696	717	738	759	780	801	821	842	863	884	905	926	947	968	989	1,010	1,031	1,052	1,072	1,093	1,114	1,135	1,156	1,177
52	504	525	546	567	588	609	630	651	672	693	714	735	755	776	797	818	839	860	881	902	923	944	965	985	1,006	1,027	1,048	1,069	1,090	1,111	1,132	1,153	1,174
54	501	522	543	564	585	606	627	648	668	689	710	731	752	773	794	815	836	857	878	899	919	940	961	982	1,003	1,024	1,045	1,066	1,087	1,108	1,129	1,149	1,170
56	498	519	540	561	581	602	623	644	665	686	707	728	749	770	791	812	832	853	874	895	916	937	958	979	1,000	1,021	1,042	1,063	1,083	1,104	1,125	1,146	1,167
58	495	515	536	557	578	599	620	641	662	683	704	725	746	766	787	808	829	850	871	892	913	934	955	976	996	1,017	1,038	1,059	1,080	1,101	1,122	1,143	1,164
60	491	512	533	554	575	596	617	638	659	679	700	721	742	763	784	805	826	847	868	889	910	930	951	972	993	1,014	1,035	1,056	1,077	1,098	1,119	1,140	1,160
62	488	509	530	551	572	592	613	634	655	676	697	718	739	760	781	802	823	843	864	885	906	927	948	969	990	1,011	1,032	1,053	1,074	1,094	1,115	1,136	1,157
64	485	506	526	547	568	589	610	631	652	673	694	715	736	756	777	798	819	840	861	882	903	924	945	966	987	1,007	1,028	1,049	1,070	1,091	1,112	1,133	1,154
66	481	502	523	544	565	586	607	628	649	670	690	711	732	753	774	795	816	837	858	879	900	920	941	962	983	1,004	1,025	1,046	1,067	1,088	1,109	1,130	1,151
68	478	499	520	541	562	583	603	624	645	666	687	708	729	750	771	792	813	834	854	875	896	917	938	959	980	1,001	1,022	1,043	1,064	1,084	1,105	1,126	1,147
70	475	496	517	537	558	579	600	621	642	663	684	705	726	747	767	788	809	830	851	872	893	914	935	956	977	998	1,018	1,039	1,060	1,081	1,102	1,123	1,144
72	471	492	513	534	555	576	597	618	639	660	681	701	722	743	764	785	806	827	848	869	890	911	931	952	973	994	1,015	1,036	1,057	1,078	1,099	1,120	1,141
74	468	489	510	531	552	573	594	614	635	656	677	698	719	740	761	782	803	824	845	865	886	907	928	949	970	991	1,012	1,033	1,054	1,075	1,095	1,116	1,137
76	465	486	507	527	548	569	590	611	632	653	674	695	716	737	758	778	799	820	841	862	883	904	925	946	967	988	1,009	1,029	1,050	1,071	1,092	1,113	1,134
78	461	482	503	524	545	566	587	608	629	650	671	691	712	733	754	775	796	817	838	859	880	901	922	942	963	984	1,005	1,026	1,047	1,068	1,089	1,110	1,131
80	458	479	500	521	542	563	584	605	625	646	667	688	709	730	751	772	793	814	835	855	876	897	918	939	960	981	1,002	1,023	1,044	1,065	1,086	1,106	1,127

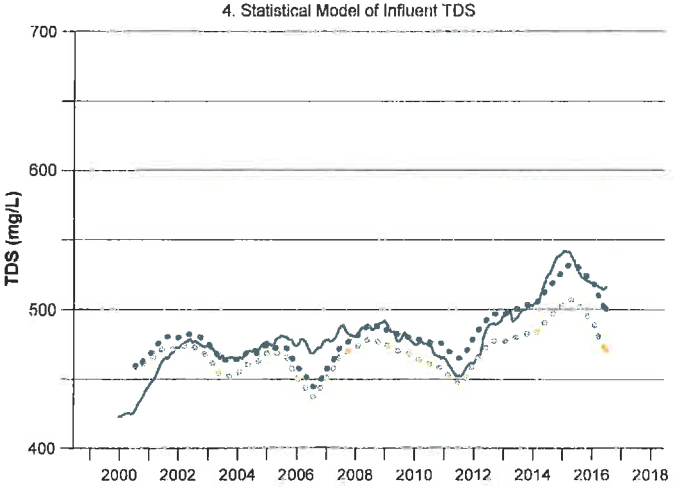




Explanation

1. Population and Indoor Water Use
   - Population
   - Per capita gallons per day (gpcd)
   - Million gallons per day (mgd)
2. Measured TDS
   - Monthly effluent TDS
   - Monthly source TDS
   - Monthly influent TDS
   - 12-Month average of effluent TDS
   - 12-Month average of source TDS
   - 12-Month average of influent TDS
3. Deterministic Model
   - Measured 12-month average of influent TDS
   - Deterministic model: actual flow (80-55) gpcd
   - Deterministic model: constant flow (80) gpcd
4. Statistical Model
   - Measured 12-month average of influent TDS
   - Statistical model: actual flow (80-55) gpcd
   - Statistical model: constant flow (80) gpcd





ITDS Multiple Linear Regression Results

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept) 337.95362   23.21138  14.560  < 2e-16 ***
STDS          0.95026    0.06194  15.342  < 2e-16 ***
IGPCD        -1.21540    0.16108  -7.548 1.82e-12 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 10.87 on 190 degrees of freedom
Multiple R-squared:  0.773,	Adjusted R-squared:  0.7706
F-statistic: 323.4 on 2 and 190 DF,  p-value: < 2.2e-16
```

SOUTHERN CALIFORNIA SALINITY COALITION

IEUA Combined Summary of Results: Indoor Water Use and TDS Trends

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3/22/2018 DB17.1179

Appendix B6

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Table 9b. IEUA Statistical Model Matrix for Influent TDS

Indoor Water Use (gpcd)	Supply Water Quality TDS (mg/L)																																		
	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	575	600	625	650	675	700	725	750	775	800	825	850	875	900	925	950	975	1,000
40	479	503	527	551	574	598	622	646	669	693	717	741	764	788	812	836	859	883	907	931	955	978	1,002	1,026	1,050	1,073	1,097	1,121	1,145	1,168	1,192	1,216	1,240
42	477	501	524	548	572	596	619	643	667	691	715	738	762	786	810	833	857	881	905	928	952	976	1,000	1,023	1,047	1,071	1,095	1,118	1,142	1,166	1,190	1,213	1,237
44	475	498	522	546	570	593	617	641	665	688	712	736	760	783	807	831	855	878	902	926	950	973	997	1,021	1,045	1,068	1,092	1,116	1,140	1,163	1,187	1,211	1,235
46	472	496	520	543	567	591	615	638	662	686	710	733	757	781	805	828	852	876	900	923	947	971	995	1,018	1,042	1,066	1,090	1,114	1,137	1,161	1,185	1,209	1,232
48	470	493	517	541	565	588	612	636	660	683	707	731	755	779	802	826	850	874	897	921	945	969	992	1,016	1,040	1,064	1,087	1,111	1,135	1,159	1,182	1,206	1,230
50	467	491	515	539	562	586	610	634	657	681	705	729	752	776	800	824	847	871	895	919	942	966	990	1,014	1,037	1,061	1,085	1,109	1,132	1,156	1,180	1,204	1,227
52	465	489	512	536	560	584	607	631	655	679	702	726	750	774	797	821	845	869	892	916	940	964	987	1,011	1,035	1,059	1,082	1,106	1,130	1,154	1,178	1,201	1,225
54	462	486	510	534	557	581	605	629	652	676	700	724	747	771	795	819	842	866	890	914	938	961	985	1,009	1,033	1,056	1,080	1,104	1,128	1,151	1,175	1,199	1,223
56	460	484	507	531	555	579	602	626	650	674	698	721	745	769	793	816	840	864	888	911	935	959	983	1,006	1,030	1,054	1,078	1,101	1,125	1,149	1,173	1,196	1,220
58	458	481	505	529	553	576	600	624	648	671	695	719	743	766	790	814	838	861	885	909	933	956	980	1,004	1,028	1,051	1,075	1,099	1,123	1,146	1,170	1,194	1,218
60	455	479	503	526	550	574	598	621	645	669	693	716	740	764	788	811	835	859	883	906	930	954	978	1,001	1,025	1,049	1,073	1,097	1,120	1,144	1,168	1,192	1,215
62	453	476	500	524	548	571	595	619	643	666	690	714	738	761	785	809	833	857	880	904	928	952	975	999	1,023	1,047	1,070	1,094	1,118	1,142	1,165	1,189	1,213
64	450	474	498	521	545	569	593	617	640	664	688	712	735	759	783	807	830	854	878	902	925	949	973	997	1,020	1,044	1,068	1,092	1,115	1,139	1,163	1,187	1,210
66	448	472	495	519	543	567	590	614	638	662	685	709	733	757	780	804	828	852	875	899	923	947	970	994	1,018	1,042	1,065	1,089	1,113	1,137	1,160	1,184	1,208
68	445	469	493	517	540	564	588	612	635	659	683	707	730	754	778	802	825	849	873	897	920	944	968	992	1,016	1,039	1,063	1,087	1,111	1,134	1,158	1,182	1,206
70	443	467	490	514	538	562	585	609	633	657	680	704	728	752	776	799	823	847	871	894	918	942	966	989	1,013	1,037	1,061	1,084	1,108	1,132	1,156	1,179	1,203
72	440	464	488	512	536	559	583	607	631	654	678	702	726	749	773	797	821	844	868	892	916	939	963	987	1,011	1,034	1,058	1,082	1,106	1,129	1,153	1,177	1,201
74	438	462	486	509	533	557	581	604	628	652	676	699	723	747	771	794	818	842	866	889	913	937	961	984	1,008	1,032	1,056	1,079	1,103	1,127	1,151	1,175	1,198
76	436	459	483	507	531	554	578	602	626	649	673	697	721	744	768	792	816	839	863	887	911	935	958	982	1,006	1,030	1,053	1,077	1,101	1,125	1,148	1,172	1,196
78	433	457	481	504	528	552	576	600	623	647	671	695	718	742	766	790	813	837	861	885	908	932	956	980	1,003	1,027	1,051	1,075	1,098	1,122	1,146	1,170	1,193
80	431	455	478	502	526	550	573	597	621	645	668	692	716	740	763	787	811	835	858	882	906	930	953	977	1,001	1,025	1,048	1,072	1,096	1,120	1,143	1,167	1,191

Table 6. Effluent Limitations at DP-001 and DP-003 With 20:1 Dilution

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Daily Maximum
Biochemical Oxygen Demand 5-day @ 20°C	mg/L (lbs/day)	30 2002	45 (3002)	--
Total Suspended Solids	mg/L (lbs/day)	30 (2002)	45 (3002)	--
Ammonia-Nitrogen	mg/L (lbs/day)	4.5 (300)	--	--
Bis(2-ethylhexyl) phthalate	µg/L (lbs/day)	5.9 (.39)	--	11.8 (0.79)

2) The weekly median number of coliform bacteria shall not exceed a median of 23 per 100 milliliters as determined from the daily coliform bacteria values for the last seven (7) days. To comply with this limit, the 7-day median MPN must not exceed 23 per 100 milliliters on any day during the week. However, only one violation is recorded for each calendar week, even if the 7-day median MPN value is greater than 23 for more than one day in the week.

c. Percent Removal:

The average monthly percent removal of BOD 5-day 20°C and total suspended solids shall not be less than 85 percent.

d. Total Dissolved Solids (TDS) Limitations

For flows up to 1.6[1] million gallons per day (MGD), the annual volume- weighted average TDS concentration of the discharge shall not exceed 400 mg/L. The Discharger shall notify the Regional Board when the habitat monitoring program adaptive management action levels are triggered that require discharge in excess of 1.6 MGD annual average.

For flows in excess of 1.6 MGD, where maximum benefit is not demonstrated, the annual volume- weighted average TDS concentration of the discharge shall not exceed 300 mg/L.

e. Total Inorganic Nitrogen (TIN) Limitations:

[1] *A baseline annual average of 1.6 mgd will be released as part of adaptive management activities pursuant to the Habitat Monitoring Program for San Timoteo Creek, Yucaipa Valley Water District, Dudek & Associates , October 2005.*