From:	Christner, Jan
To:	Way, Steven; McComb, Martin; Dhieux, Joyel; Myers, Craig
Subject:	A72 Water Quality Comparison
Date:	Thursday, September 3, 2015 3:10:10 PM
Attachments:	Scenario 1 Concentrations vs Current and Historic WQS Exceedances.docx

---

See the attached table that compares predicted concentrations at A72 compared to historic median and max and historic (2009-2014) WQS exceedances.

I just used the Scenario 1 concentrations in this table. Others might present a slightly different story.

CONFIDENTIALITY: This email and attachments may contain information which is confidential and proprietary. Disclosure or use of any such confidential or proprietary information without the written permission of Weston Solutions, Inc. is strictly prohibited. If you received this email in error, please notify the sender by return e-mail and delete this email from your system. Thank you.

ESTIMATED A72 CONCENTRATIONS - SCENARIO 1 With WQS Exceedances and # of historic WQS Exceedances														
	Jan	Feb	Mar	Apr	May	Jun	Jul	August	Sept	Oct	Nov	Dec	Median*	Max*
DISSOLVED CONCENTRATIONS														
Aluminum	727	790	603	253	64	45	102	207	255	301	515	674	182	3290
Cadmium	5.03	5.47	4.17	1.75	0.445	0.311	0.708	1.44	1.76	2.09	3.56	4.66	1.83	2.8
>Acute WQS	NM	1/1	2/2	1/1	1/4	0/4	0/3	0/2	0/4	0/2	1/2	NM		
>Chronic WQS		1/1	2/2	1/1	4/4	4/4	3/3	2/2	4/4	2/2	2/2	NM		
Copper	53.4	58.0	44.3	18.6	4.7	3.3	7.5	15.2	18.7	22.1	37.8	49.5	19.6	36.9
>Acute WQS	NM	1/1	2/2	1/1	0/4	0/4	0/1	0/1	0/2	0/1	1/2	NM		
>Chronic WQS		1/1	2/2	1/1	2/4	1/4	0/1	1/1	2/2	1/1	2/2	NM		
Iron	3375	3666	2797	1175	298	208	475	962	1181	1399	2389	3126	1650	3250
>Chronic WQS	NM	0/1	0/2	0/1	0/4	0/4	0/3	0/2	0/4	0/2	1/2	NM		
Lead	5.4	5.8	4.4	1.9	0.5	0.3	0.8	1.5	1.9	2.2	3.8	5.0	1	2.7
Manganese	3655	3970	3030	1272	323	226	514	1042	1279	1515	2587	3386	1540	2880
>Chronic WQS	NM	1/1	2/2	1/1	0/4	0/4	0/1	0/1	0/2	0/1	1/2	NM		
Zinc	1678	1823	1391	584	148	104	236	478	587	696	1188	1555	711	1170
>Both WQS	NM	1/1	2/2	1/1	1/4	1/4	4/4	2/2	4/4	2/2	2/2	NM		
TOTAL CONCENTRATIONS														
Aluminum	5345	5806	4431	1860	472	330	752	1524	1871	2215	3784	4952	2130	4440
>Both WQS	NM	1/1	2/2	0/2	2/4	2/4	3/4	2/2	3/4	2/2	2/2	NM		
Cadmium	5.39	5.85	4.46	1.87	0.476	0.333	0.757	1.54	1.88	2.23	3.81	4.99	1.95	2.9
Copper	164	179	136	57.2	14.5	10.2	23.1	46.9	57.5	68.1	116	152	33.6	46.7
Iron	8556	9294	7093	2978	756	528	1203	2439	2995	3546	6057	7927	3750	7710
Manganese	2384	2590	1976	830	211	147	335	680	834	988	1688	2209	5.7	14.2
Lead	42.1	45.7	34.9	14.7	3.7	2.6	5.9	12.0	14.7	17.4	29.8	39.0	1535	3110
Zinc	1660	1803	1376	578	147	103	233	473	581	688	1175	1538	693	1150

Notes:
Orange shaded cells show values that exceed acute WQS. Blue shaded cells show values that exceed chronic WQS.
Maximums were from from February and March 2010
> Acute WQS or > Chronic WQS shows # of exceedances and # samples (e.g. 1/2 means 1 exceedance of 2 sample events)
No WQS for total aluminum or dissolved cadmium, copper, iron manganese, lead and zinc.
Lead WQS not exceeded in historic dataset.