



Christa McJunkin, Director Water Strategy
Mail Station PAB38W | P.O. Box 52025
Phoenix, AZ 85072-2025
P: (602) 236-3032 | M: (480) 208-5562
Christa.McJunkin@srpnet.com

June 25, 2020

Patrick Dent
Director of Water Policy
Central Arizona Project
23636 N. 7th Street
Phoenix, AZ 85024

RE: Draft Water Quality Guidance Document

Dear Mr. Dent,

This letter is in response to the Central Arizona Project (CAP) and Bureau of Reclamation (BOR) Draft Water Quality Guidance document as presented on April 23, 2020. Salt River Project (SRP) has provided extensive technical and policy input to develop the Consensus Proposal for a blending-based water quality standard. The Consensus Proposal outlined a framework for managing the quality of non-CAP water transported in the CAP canal, including major water quality program elements and numeric criteria for the first six key constituents. We are pleased to see many of the major elements of the Consensus Proposal incorporated into this draft document, but still have a few concerns with implementation and how the guidance could impact the proposed future interconnection known as the Salt River-CAP Interconnection Facility (SCIF). After reviewing the draft document and hearing from some of our shared stakeholders, we share the comments below in hopes to further the conversation and work together on potential solutions. We also appreciate staff's willingness to share Appendix A in an editable format and have made comments directly in the document and have attached electronically in Excel format. In addition to the comments below, SRP supports the formation of a technical stakeholder group to further discuss and address this Guidance Document.

Comments

Section 2.1 CAP Water Quality

Stating that CAP water "meets most (if not all) established primary drinking water standards, and requires minimal treatment prior to delivery for potable uses" is highly overstating the ability for end users to make direct use of this surface water supply for direct potable water delivery. No raw surface water is safe to drink but for the most pristine of resources. All surface waters are exposed to natural contaminants carried by waterfowl and aquatic life to name a few. All raw surface waters have the potential to and commonly do carry variable to elevated levels of bacteria including coliform. Note also the unachievable standard suggested for raw surface water in Appendix A as assigned for bacteria and pathogens. Please remove this statement and revise Appendix A as noted in our attachment to this letter.

Section 3.4.1.5 Initial Analysis Sampling – Surface Water, second paragraph

"The Applicant must demonstrate that Introductory Standards can be met for all times of the year" is potentially problematic for the proposed SCIF project. Due to the restrictive introductory standards proposed, one of the operating criteria that may make SCIF a successful project, at least in the beginning, is to only operate during parts of the year SRP is on the Salt River. Even in times where Verde River water is being released, SRP may be able to operationally blend down below the introductory standard and demonstrate compliance. However, in and of itself, the Verde may not achieve the "all times of year" statement. Additionally, as stated in the introduction, "due to seasonal variability and complexity in surface waters..." and including real-time variations, weather, and source water blending, the statement that "introductory standards should be met at all times of the year and all operating conditions" is very restrictive. Accounting for "All" operational conditions is extremely complicated. For most any surface water, Turbidity, for example, can vary above or below the introductory standard depending on the time of day, weather, chlorophyll levels, sensor drift, or localized disturbances from wildlife or operations activities. The policy should provide for blending and operational provisions including blending model scenarios and historical data to demonstrate individual or blended surface water sources compliance with introductory standards across an operational range.

3.4.1.5 Initial Analysis Sampling – Surface Water, third paragraph

"If historic data is not available, current conditions must be tested and stability in water quality must be demonstrated."

This statement should be removed or rephrased. Stability in surface water quality is not manageable within the constraints of natural variability.

3.4.3. Review and Verification

"The Applicant will meet with CAWCD to discuss test results and model output. Original test results provided by the laboratory..."

Please clarify if actual laboratory reports are required or if tabulated laboratory data is acceptable (preferred).

Table 1, page 12

Recommend allowing an alternate annual sampling date when sources are seasonal. For example, you may want certain surface water supplies sampled on a different sampling schedule than for groundwater or other surface water supplies. Allow flexibility to work with the applicant to determine appropriate annual sampling schedule.

5.2.1. Water Quality Reporting – Test Results

The 48-hour turnaround time for all test results may be too restrictive. Consider requiring any exceedance to be reported within 48-hours of receiving the test results, but all other test results could have a longer time before reporting is due.

5.2.3. Operational Changes

Consider renaming this section as "Planned Operational Changes" since day-day operations require regular routine communications via operators and data telemetry controls.

5.2.4. Water Quality Reporting - Annual Report

Consider working with stakeholders on development of an electronic data report submittal in a consistent format across projects to facilitate an efficient CAP review of data.

7.2.2. Exceedance of Introduction Standards – Ongoing Monitoring Period

Note that real-time event dependent parameters such as Turbidity should be accommodated by an "operational variability" statement here and "proving period" to demonstrate effective compliance over a relevant time based statistics.

7.2.4.1 Variance – Proving Period

"The variance will be set for a fixed duration not to exceed the remaining time in the Proving Period (24 month maximum)"

Recommend changing to 48 months to allow for variances to demonstrate when standards may be set too strict and to inform the 5 year policy review.

7.2.4.2 Variance - Ongoing Compliance Period

"The variance is for a fixed duration, not to exceed two years"

Same comment as above. Recommend changing to 48 months to allow for variances to demonstrate when standards may be set too strict and to inform the 5 year policy review.

I hope this letter is helpful and we look forward to continuing to participate in the development of a final Water Quality Guidance Document. Many of these comments are nuanced and technical in nature. If these are not addressed, CAP and BOR may have drafted a document that will preclude most, if not all, opportunities to use the System Use Agreement and wheel water in the CAP canal. We don't think that was the intention, so again request the formation of a technical stakeholder group to help inform and refine the final drafting of this document.

Sincerely,



Christa McJunkin

cc: Colette Moore, SRP
Mike Ploughe, SRP

Constituent	Recommended Analytical Method	Units	MRL	Introduction Standard	Delivery Standard	CAP 5-Year Mean	SRP Comments
TABLE A-1							
Dissolved Oxygen	Field	mg/L		Non Degradation	Non Degradation		
pH	Field			6.5-9.5			
Temperature	Field	°C		Non Degradation	Non Degradation		Standard temp units are in Celsius
CAP Priority Constituents - Characterize							
Alpha, Gross	EPA 900.0	pCi/l	3	TBD	Characterize	--	
Aluminum	EPA 200.8	µg/l	20	TBD	Characterize	--	ICAP is not a constituent.
Beryllium	EPA 200.8	µg/l	1	TBD	Characterize	ND	
Beta, Gross	EPA 900.0	pCi/l	3	TBD	Characterize	--	
Bromide	EPA 300.0	µg/l	50	TBD	Characterize	81.70	MRL is not achievable.
Cadmium	EPA 200.8	µg/l	1	TBD	Characterize	ND	MRL is not achievable.
Cobalt, Total	EPA 200.8	µg/l	2	TBD	Characterize	--	
Germanium	EPA 200.8	µg/l	1	TBD	Characterize	--	MRL is not achievable.
Mercury	EPA 245.1	µg/l	0.2	TBD	Characterize	ND	
Molybdenum	EPA 200.8	µg/l	2	TBD	Characterize	--	
Nickel	EPA 200.8	µg/l	5	TBD	Characterize	ND	
Nitrite as Nitrogen	EPA 300.0	mg/l	0.25	TBD	Characterize	--	Units appear to be incorrect. MRL is not achievable.
Potassium, Total	EPA 200.7	mg/l	1	TBD	Characterize	4.90	ICAP is not a constituent.
Radium-226+228	Gamma Ray HPGE	pCi/l	1	TBD	Characterize	--	Main AZ RadChem lab uses HPGE.
Strontium	EPA 200.7	mg/l	0.01	TBD	Characterize	1.10	ICAP is not a constituent.
Vanadium	EPA 200.8	µg/l	3	TBD	Characterize	--	
CAP Priority Constituents							
Alkalinity in CaCO3 units	SM2320B	mg/l	5	250	170	122.30	SRP's MRL is 5 mg/L.
Ammonia Nitrogen	EPA 350.1	mg/l	0.5	0.05	0.05	0.04	MRL is not achievable without use of low-level methods.
Antimony	EPA 200.8	µg/l	1	6	Characterize	--	
Arsenic	EPA 200.8	µg/l	1	10	5	2.90	
Barium, Total	EPA 200.8	µg/l	2	2000	230	123.20	ICAP is not a constituent
Boron	EPA 200.7	mg/l	0.05	1	0.5	--	
Calcium, Total	EPA 200.7	mg/l	1	200	160	72.60	ICAP is not a constituent
Chloride	EPA 300.0	mg/l	2.5	450	170	91.50	
Chromium	EPA 200.8	µg/l	1	100	10	ND	
Copper, Dissolved	EPA 200.8	µg/l	2	64	64	--	
Fluoride	SM4500F C or EPA 300.0	mg/l	0.1	4	0.7	--	MRL is barely above most MDLs for fluoride; not achievable by most labs.
Hexavalent Chromium	EPA 218.7	µg/l	0.05	16	3	0.05	SRP's MRL for this method is 0.05 ug/L.
Iron, Dissolved	EPA 200.7	mg/l	0.02	1000	100	ND	ICAP is not a constituent
Lead	EPA 200.8	µg/l	1	15	3	ND	SRP's MRL for lead is 1.0 ug/L.
Manganese, Total	EPA 200.8	µg/l	2	250	27	5.70	ICAP is not a constituent
Nitrate as Nitrogen	EPA 300.0	mg/l	1	10	1	0.12	MRL is barely above the MDL; not achievable.
Perchlorate	EPA 314	µg/l	2	15	Characterize	ND	
Phosphorus, Total-P	EPA 365.3	mg/l	0.05	0.1	0.025	0.02	EPA 365.1 is not an approved method; MRL is below that of most laboratories using this method.
Selenium	EPA 200.8	µg/l	5	50	20	ND	
Silver Total	EPA 200.8	µg/l	0.5	100	20	ND	ICAP is not a constituent; SRP's MRL for silver by EPA 200.8 is 1.0 ug/L.
Sodium, Total	EPA 200.7	mg/l	1	350	110	92.60	ICAP is not a constituent

Sulfate	EPA 300.0	mg/l	15	400	250	237.40	SRP's MRL for sulfate is 15 ug/L; there is no need to calibrate lower, as sulfate is always detected at higher levels.
Thallium	EPA 200.8	µg/l	1	1	Characterize	ND	
Total Dissolved Solids (TDS)	SM2540C	mg/l	30	1150	747	629.70	SRP's MRL is 28.6 mg/L.
Total Organic Carbon	SM5310C	mg/l	0.5	6	4	--	SRP's MRL is 0.5 mg/L.
Turbidity	EPA 180.1	NTU	0.2	9	6	1.10	SRP's MRL is 0.2 NTU; instrument is not capable of lower MRL. Turbidity introduction standard does not take into account variable turbidity from storm events within the watersheds.
Uranium	EPA 200.8	ug/L	1	30	5	4.10	Units for 200.8 are ug/L. SRP's MRL is 1 ug/L.
Zinc	EPA 200.8	µg/l	20	1	0.03	ND	
TABLE A-2							
Regulated EPA Primary and Secondary Constituents							
1,1,1-Trichloroethane	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
1,1,2-Trichloroethane	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
1,1-Dichloroethylene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
1,2,4-Trichlorobenzene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
1,2-Dibromo-3-Chloropropane	EPA 504.1	µg/l	0.02	0.01	0.01	--	SRP's MRL is 0.02 ug/L - EPA 504.1.
1,2-Dichlorobenzene (1,2 DCB)	EPA 524.2	µg/l	0.5	0.5	0.5	--	
1,2-Dichloroethane	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
1,2-Dichloropropane	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
1,4 Dichlorobenzene (1,4 DCB)	EPA 524.2	µg/l	0.5	0.5	0.5	--	
2,4,5-TP (Silvex)	EPA 515.4	µg/l	1	0.2	0.2	ND	Standard non-DW MRL is 1 ug/L.
2,4-D	EPA 515.4	µg/l	1	0.1	0.1	0.07	Standard non-DW MRL is 1 ug/L.
Alachlor	EPA 525.2	µg/l	0.8	0.05	0.05	ND	Standard non-DW MRL is 0.8 ug/L
Atrazine	EPA 525.2	µg/l	0.8	0.05	0.05	ND	Standard non-DW MRL is 0.8 ug/L.
Benzene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Benzo(a)pyrene	EPA 525.2	µg/l	0.16	0.02	0.02	ND	Standard non-DW MRL is 0.16 ug/L.
Carbofuran (Furadan)	EPA 531.2	µg/l	0.5	0.5	0.5	ND	
Carbon Tetrachloride	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Chlordane	EPA 525.2 or EPA 505	µg/l	0.1	0.1	0.1	--	EPA 505 may also be used.
Chlorobenzene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
cis-1,2-Dichloroethylene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Dalapon	EPA 515.4	µg/l	10	1	1	ND	Standard non-DW MRL is 10 ug/L.
Di-(2-Ethylhexyl)adipate	EPA 525.2	µg/l	4.8	0.6	0.6	ND	Standard non-DW MRL is 4.8 ug/L.
Di(2-Ethylhexyl)phthalate	EPA 525.2	µg/l	4.8	0.6	0.6	ND	Standard non-DW MRL is 4.8 ug/L.
Dichloromethane	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Dinoseb	EPA 515.4	µg/l	1	0.2	0.2	ND	Standard non-DW MRL is 1 ug/L.
Diquat	EPA 549.2	µg/l	0.4	0.4	0.4	--	
Endothall	EPA 548.1	µg/l	9	5	5	--	Standard non-DW MRL is 9 ug/L.
Endrin	EPA 525.2	µg/l	0.2	0.2	0.2	ND	
Ethyl benzene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Ethylene Dibromide	EPA 504.1	µg/l	0.02	0.01	0.01	--	SRP's MRL is 0.02 ug/L - EPA 504.1.
Glyphosate	EPA 547	µg/l	6	6	6	--	
Heptachlor	EPA 525.2	µg/l	0.32	0.04	0.04	ND	Standard non-DW MRL is 0.32 ug/L.
Heptachlor Epoxide (isomer B)	EPA 525.2	µg/l	0.16	0.05	0.05	ND	Standard non-DW MRL is 0.16 ug/L.
Hexachlorobenzene	EPA 525.2	µg/l	0.8	0.05	0.05	ND	Standard non-DW MRL is 0.8 ug/L
Hexachlorobutadiene	EPA 524.2	µg/l	0.8	0.5	0.5	ND	Standard non-DW MRL is 0.8 ug/L
Hexachlorocyclopentadiene	EPA 525.2	µg/l	0.8	0.05	0.05	ND	Standard non-DW MRL is 0.8 ug/L
Lindane	EPA 525.2	µg/l	0.16	0.04	0.04	ND	Standard non-DW MRL is 0.16 ug/L.

Methoxychlor	EPA 525.2	µg/l	0.8	0.1	0.1	ND	Standard non-DW MRL is 0.8 ug/L
Metolachlor	EPA 525.2	µg/l	0.8	0.1	0.1	--	Standard non-DW MRL is 0.8 ug/L
Oxamyl	EPA 531.2	µg/l	1	0.5	0.5	ND	Standard non-DW MRL is 1.0 ug/L.
Pentachlorophenol	EPA 515.4	µg/l	0.4	0.04	0.04	ND	Standard non-DW MRL is 0.4 ug/L.
Picloram	EPA 515.4	µg/l	1	0.1	0.1	ND	Standard non-DW MRL is 1.0 ug/L.
Simazine	EPA 525.2	µg/l	0.5	0.05	0.05	ND	Standard non-DW MRL is 0.5 ug/L.
Styrene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Tetrachloroethylene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Total PCB	EPA 525.2 or EPA 505	µg/l	0.3	0.1	0.1	--	Some Arochlors within the total PCBs cannot be quantitated at the proposed MRL.
Total Trihalomethanes	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Toxaphene	EPA 525.2 or EPA 505	µg/l	1	0.5	0.5	--	Standard non-DW MRL is 1.0 ug/L.
Trichloroethylene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Vinyl Chloride	EPA 524.2	µg/l	0.5	0.3	0.3	ND	SRP's MRL is 0.5 ug/L.
Unregulated EPA Constituents							
1,1,1,2-Tetrachloroethane	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
1,1,2,2-Tetrachloroethane	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
1,1-Dichloroethane	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
1,1-Dichloropropene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
1,2,3-Trichlorobenzene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
1,2,3-Trichloropropane	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
1,2,4-Trimethylbenzene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
1,3,5-Trimethylbenzene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
1,3-Dichlorobenzene (1,3 DCB)	EPA 524.2	µg/l	0.5	0.5	0.5	--	
1,3-Dichloropropane	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
1,3-Dichloropropene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
1,4-Dioxane	EPA 522	µg/l	0.07	0.07	0.07	--	
1-Butanol	EPA 541	µg/l	2	2	2	--	
2,2-Dichloropropane	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
2,4,5-T	EPA 515.4	µg/l	0.5	0.2	0.2	ND	Standard non-DW MRL is 0.5 ug/L.
2,4-DB	EPA 515.4	µg/l	2	2	2	ND	
2-Butanone (MEK)	EPA 524.2	µg/l	5	5	5	ND	
2-Methoxyethanol	EPA 541	µg/l	0.4	0.4	0.4	--	
2-Propen-1-ol	EPA 541	µg/l	0.5	0.5	0.5	--	
3,5-Dichlorobenzoic acid	EPA 515.4	µg/l	0.5	0.5	0.5	ND	
3-Hydroxycarbofuran	EPA 531.2	µg/l	0.5	0.5	0.5	ND	
4,4'-DDD	EPA 525.2	µg/l	0.1	0.1	0.1	--	
4,4'-DDE	EPA 525.2	µg/l	0.1	0.1	0.1	--	
4,4'-DDT	EPA 525.2	µg/l	0.1	0.1	0.1	--	
4-Methyl-2-Pentanone (MIBK)	EPA 524.2	µg/l	5	5	5	ND	
Acetaldehyde	EPA 556/556.1	µg/l	5	1	1	--	Standard non-DW MRL is 5.0 ug/L.
Acetochlor	EPA 525.2	µg/l	0.1	0.1	0.1	--	
Acetochlor ethanesulfonic acid (ESA)	EPA 535	µg/l	0.1	0.1	0.1	--	
Acetochlor oxanilic acid (OA)	EPA 535	µg/l	0.1	0.1	0.1	--	
Acifluorfen	EPA 515.4	µg/l	1	0.2	0.2	ND	Standard non-DW MRL is 1.0 ug/L.
Acrolein	EPA 8260B or EPA 624	µg/l	50	25	25	--	SRP's MRL for is 50 ug/L.
Alachlor ethanesulfonic acid (ESA)	EPA 535	µg/l	0.1	0.1	0.1	--	
Alachlor oxanilic acid (OA)	EPA 535	µg/l	0.1	0.1	0.1	--	
Aldicarb (Temik)	EPA 531.2	µg/l	0.5	0.5	0.5	ND	
Aldicarb sulfone	EPA 531.2	µg/l	0.5	0.5	0.5	ND	Standard non-DW MRL is 0.7 ug/L.
Aldicarb sulfoxide	EPA 531.2	µg/l	0.5	0.5	0.5	ND	

Aldrin	EPA 525.2	µg/l	0.01	0.01	0.01	--	Standard non-DW MRL is 0.1 ug/L.
alpha-Chlordane	EPA 525.2	µg/l	0.1	0.1	0.1	--	
alpha-Hexachlorocyclohexane	EPA 525.3	µg/l	0.01	0.01	0.01	--	
Aniline	EPA 8270C	µg/l	20	20	20	--	
Aroclor 1016	EPA 525.2 or EPA 505	µg/l	0.1	0.1	0.1	--	
Aroclor 1221	EPA 525.2 or EPA 505	µg/l	0.2	0.1	0.1	--	Standard non-DW MRL is 0.2 ug/L.
Aroclor 1232	EPA 525.2 or EPA 505	µg/l	0.3	0.1	0.1	--	Standard non-DW MRL is 0.3 ug/L.
Aroclor 1242	EPA 525.2 or EPA 505	µg/l	0.3	0.1	0.1	--	Standard non-DW MRL is 0.3 ug/L.
Aroclor 1248	EPA 525.2 or EPA 505	µg/l	0.1	0.1	0.1	--	
Aroclor 1254	EPA 525.2 or EPA 505	µg/l	0.1	0.1	0.1	--	
Aroclor 1260	EPA 525.2 or EPA 505	µg/l	0.2	0.1	0.1	--	Standard non-DW MRL is 0.2. ug/L.
Baygon	EPA 531.2	µg/l	0.5	0.5	0.5	--	
Bentazon	EPA 515.4	µg/l	0.5	0.5	0.5	ND	
Bromobenzene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Bromochloromethane	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Bromodichloromethane	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Bromoethane	EPA 524.2	µg/l	0.5	0.5	0.5	ND	Not in standard 524.2 list for SRP.
Bromoform	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Bromomethane (Methyl Bromide)	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Butylated hydroxyanisole	EPA 530	µg/l	0.03	0.03	0.03	--	
Carbaryl	EPA 531.2	µg/l	0.5	0.5	0.5	ND	
Carbon Disulfide	EPA 524.2	µg/l	0.5	0.5	0.5	ND	Not in standard 524.2 list for SRP.
Chlorodibromomethane	EPA 524.2	µg/l	0.5	0.5	0.5	ND	Not in standard 524.2 list for SRP.
Chloroethane	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Chloroform (Trichloromethane)	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Chloromethane(Methyl Chloride)	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Dibromomethane	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Dicamba	EPA 515.4	µg/l	0.1	0.1	0.1	ND	
Dichlorodifluoromethane	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Dichlorprop	EPA 515.4	µg/l	2	0.5	0.5	ND	Standard non-DW MRL is 2.0 ug/L.
Dieldrin	EPA 525.2	µg/l	0.1	0.01	0.01	--	Standard non-DW MRL is 0.1 ug/L.
Di-isopropyl ether	EPA 524.2	µg/l	3	3	3	ND	Not in standard 524.2 list for SRP.
Dimethipin	EPA 525.3	µg/l	0.2	0.2	0.2	--	
Equilin	EPA 539	µg/l	0.004	0.004	0.004	--	
Estradiol (17-beta estradiol)	EPA 539	µg/l	0.0004	0.0004	0.0004	--	
Estriol	EPA 539	µg/l	0.0009	0.0009	0.0009	--	
Estrone	EPA 539	µg/l	0.002	0.0008	0.0008	--	Standard non-DW MRL is 2.0 ng/L. (0.002 ug/L)
Ethinyl estradiol (17-alpha ethynyl estradiol)	EPA 539	µg/l	0.0009	0.0009	0.0009	--	
Ethoprop	EPA 525.3	µg/l	0.03	0.03	0.03	--	
Ethylene glycol	EPA 8015D	mg/l	5	5	5	--	
Formaldehyde	EPA 556/556.1	µg/l	5	5	5	--	
Gamma-Chlordane	EPA 525.2	µg/l	0.1	0.1	0.1	--	
HCFC-22	EPA 8260B	µg/l	2.5	2.5	2.5	--	
Hexane	EPA 8260B	µg/l	2	2	2	--	
Isopropylbenzene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
M/P-Xylenes	EPA 524.2	µg/l	1	0.5	0.5	ND	SRP's MRL is 1.0 ug/L.
Methanol	EPA 8015B	mg/L	0.5	0.1	0.1	--	Standard non-DW MRL is 0.5 mg/L.
Methiocarb	EPA 531.2	µg/l	1	0.5	0.5	ND	Standard non-DW MRL is 1.0 ug/L.
Methomyl	EPA 531.2	µg/l	0.5	0.5	0.5	ND	
Methyl Tert-butyl ether (MTBE)	EPA 524.2	µg/l	0.5	0.5	0.5	ND	Not in standard 524.2 list for SRP.
Metolachlor ethanesulfonic acid (ESA)	EPA 535	µg/l	0.1	0.1	0.1	--	
Metolachlor oxanilic acid (OA)	EPA 535	µg/l	0.1	0.1	0.1	--	

Molinate	EPA 525.2	µg/l	0.1	0.1	0.1	--	
Naphthalene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
N-Butylbenzene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
N-nitrosodiethylamine (NDEA)	EPA 521	µg/l	2	2	2	--	
N-nitrosodimethylamine (NDMA)	EPA 521	µg/l	2	2	2	--	
N-nitroso-di-n-propylamine (NDPA)	EPA 521	µg/l	2	2	2	--	
N-nitrosopyrrolidine (NPYR)	EPA 521	µg/l	2	2	2	--	
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	EPA 537	ng/l	2	2	2	--	
N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	EPA 537	ng/l	2	2	2	--	
N-Propylbenzene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
o-Chlorotoluene	EPA 524.2	µg/l	0.5	0.5	0.5	--	Not in standard 524.2 list for SRP.
o-Xylene	EPA 524.2	µg/l	0.5	0.5	0.5	--	
o-Toluidine	EPA 530	µg/l	0.007	0.007	0.007	ND	
Oxyfluorfen	EPA 525.3	µg/l	0.05	0.05	0.05	--	
Paraquat	EPA 549.2	µg/l	2	2	2	--	
p-Chlorotoluene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	Not in standard 524.2 list for SRP.
Perfluorobutanesulfonic acid (PFBS)	EPA 537	ng/l	2	2	2	--	
Perfluorodecanoic acid (PFDA)	EPA 537	ng/l	2	2	2	--	
Perfluorododecanoic acid (PFDoA)	EPA 537	ng/l	2	2	2	--	
Perfluoroheptanoic acid (PFHpA)	EPA 537	ng/l	2	2	2	--	
Perfluorohexanesulfonic acid (PFHxS)	EPA 537	ng/l	2	2	2	--	
Perfluorohexanoic acid (PFHxA)	EPA 537	ng/l	2	2	2	--	
Perfluorononanoic acid (PFNA)	EPA 537	ng/l	2	2	2	--	
Perfluorooctanesulfonic acid (PFOS)	EPA 537	ng/l	2	2	2	--	
Perfluorooctanoic acid (PFOA)	EPA 537	ng/l	2	2	2	--	
Perfluorotetradecanoic acid (PFTA)	EPA 537	ng/l	2	2	2	--	
Perfluorotridecanoic acid (PFTrDA)	EPA 537	ng/l	2	2	2	--	
Perfluoroundecanoic acid (PFUnA)	EPA 537	ng/l	2	2	2	--	
Permethrin	EPA 525.2	µg/l	0.1	0.04	0.04	--	Standard non-DW MRL is 0.1 ug/L.
p-Isopropyltoluene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	Not in standard 524.2 list for SRP.
Profenofos	EPA 525.3	µg/l	0.3	0.3	0.3	--	
Quinoline	EPA 530	µg/l	0.02	0.02	0.02	--	
sec-Butylbenzene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Silica as SiO2	EPA 200.7	mg/L	0.5	0.2	0.2	--	Analyte should be Silica as SiO2. SRP's MRL is 0.5 mg/L. Introduction Standard is unrealistic for surface water or groundwater (always contains sand/silica).
Tebuconazole	EPA 525.3	µg/l	0.2	0.2	0.2	--	
Tert-Butylbenzene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Thiobencarb	EPA 525.2	µg/l	0.1	0.1	0.1	--	
Toluene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Total DCPA Mono- and Di-acid Degradate	EPA 515.4	µg/l	0.1	0.1	0.1	0.05	Standard non-DW MRL is 0.5 ug/L.
Total Kjeldahl Nitrogen	EPA 351.2	mg/l	1	0.1	0.1	--	Standard MRL is 1.0 mg/L.
trans-1,2-Dichloroethylene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
trans-1,3-Dichloropropene	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
trans-Nonachlor	EPA 525.2	µg/l	0.1	0.1	0.1	--	
Tribufos	EPA 525.3	µg/l	0.07	0.07	0.07	--	
Trichlorofluoromethane-Freon11	EPA 524.2	µg/l	0.5	0.5	0.5	ND	
Xylenes (total)	EPA 524.2	µg/l	1	0.5	0.5	ND	SRP's MRL is 1.0 ug/L.
EPA Disinfection Byproducts							
Bromochloroacetic Acid	EPA 552.3	µg/l	1	0.3	0.3	--	Standard non-DW MRL is 1.0 ug/L.
Bromodichloroacetic Acid	EPA 552.3	µg/l	1	0.5	0.5	--	Standard non-DW MRL is 1.0 ug/L.

Chlorodibromoacetic Acid	EPA 552.3	µg/l	2	0.3	0.3	--	Standard non-DW MRL is 2.0 ug/L.
Dibromoacetic Acid	EPA 552.3	µg/l	1	0.3	0.3	--	Standard non-DW MRL is 1.0 ug/L.
Dichloroacetic Acid	EPA 552.3	µg/l	1	0.2	0.2	--	Standard non-DW MRL is 1.0 ug/L.
Monobromoacetic Acid	EPA 552.3	µg/l	1	0.3	0.3	--	Standard non-DW MRL is 1.0 ug/L.
Monochloroacetic Acid	EPA 552.3	µg/l	1	2	2	--	Standard non-DW MRL is 1.0 ug/L.
Total Haloacetic Acids (HAAS)	EPA 552.3	µg/l	1	0.2	0.2	--	Standard non-DW MRL is 1.0 ug/L.
Trichloroacetic Acid	EPA 552.3	µg/l	1	0.5	0.5	--	Standard non-DW MRL is 1.0 ug/L.
Microbiology							Section name is incorrect. HPC and total coliform are not pathogens.
Coliform, Total	SM9223	MPN/100 mL	1	1	1	--	Introduction standard is unrealistic for surface water; cannot be achieved without sterilization.
Cryptosporidium	EPA 1623	oocysts/l	0.1	0.1	0.1	0.05	Introduction standard is unrealistic for surface water. Surface water contains Cryptosporidium excreted by animals.
E. Coli	SM9223	MPN/100 mL	1	1	1	--	Introduction standard is unrealistic for surface water. Surface water contains E. coli excreted by animals.
Giardia	EPA 1623	cysts/l	0.1	0.1	0.1	0.05	Introduction standard is unrealistic for surface water. Surface water contains Giardia excreted by animals.
HPC	SM9215 or equivalent	FU/ml or MPN/r	1	1	1	--	Introduction standard is unrealistic for surface water; cannot be achieved without sterilization.
TABLE A-3							
No EPA Tests Available (5-year Re-assessment)							Why include these analytes at all at this point? These are emerging contaminants, and health assessments are incomplete.
1,3-Butadiene	No EPA Test Available						
17 alpha-estradiol	No EPA Test Available						
2-Nonylphenol	No EPA Test Available						
4,4'-Methylenedianiline	No EPA Test Available						
4-Nitrophenol (qualitative)	No EPA Test Available						
Acephate	No EPA Test Available						
Acetamide	No EPA Test Available						
Bensulide	No EPA Test Available						
Benzyl chloride	No EPA Test Available						
Captan	No EPA Test Available						
Chloramben	No EPA Test Available						
Clethodim	No EPA Test Available						
Cumene hydroperoxide	No EPA Test Available						
Cyanotoxins	No EPA Test Available						
Anatoxin a	No EPA Test Available						
Cylindrospermopsin	No EPA Test Available						
Microcystin-LA	No EPA Test Available						
Microcystin-LF	No EPA Test Available						
Microcystin-LR	No EPA Test Available						
Microcystin-LY	No EPA Test Available						
Microcystin-RR	No EPA Test Available						
Microcystin-YR	No EPA Test Available						
Nodularin	No EPA Test Available						
Dacthal	No EPA Test Available						
Dicrotophos	No EPA Test Available						
Diuron	No EPA Test Available						

Equilenin	No EPA Test Available						
Erythromycin	No EPA Test Available						
Ethylene oxide	No EPA Test Available						
Ethylene thiourea	No EPA Test Available						
Hydrazine	No EPA Test Available						
L. Pneumophilia	No EPA Test Available						
Mestranol	No EPA Test Available						
Methamidophos	No EPA Test Available						
Nitrobenzene	No EPA Test Available						
Nitroglycerin	No EPA Test Available						
N-Methyl-2-pyrrolidone	No EPA Test Available						
N-nitrosodiphenylamine	No EPA Test Available						
Norethindrone (19-Norethisterone)	No EPA Test Available						
Oxirane, methyl	No EPA Test Available						
Oxydemeton-methyl	No EPA Test Available						
RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine)	No EPA Test Available						
Silicone	No EPA Test Available						
Tebufenozide	No EPA Test Available						
Tellurium	No EPA Test Available						
Thiodicarb	No EPA Test Available						
Thiophanate-methyl	No EPA Test Available						
Toluene diisocyanate	No EPA Test Available						
Triethylamine	No EPA Test Available						
Triphenyltin hydroxide (TPTH)	No EPA Test Available						
Urethane	No EPA Test Available						
Vinclozolin	No EPA Test Available						
Ziram	No EPA Test Available						