Table 3. Summary of ECSD Local Limit Flow-Based Allocation Methods for Cyanide (Amenable)

Element	Equal Allocation	Flow-Based Allocation		Notes/Discussion
		MRE = 21%	MRE = 69%	
POTW Flow	13.92 MGD	13.92 MGD	13.92 MGD	POTW design flow of 15 MGD (13.92 MGD is average flow and is appropriate to use per the Local Limit Guidance).
Industrial User Flow	2.76 MGD	2.76 MGD	2.76 MGD	No comments. Calculated from known industrial users and therefore appropriate to use per the Local Limits Guidance.
Maximum Allowable Headworks Loading (MAHL)	0.63 lbs/day	0.63 lbs/day	0.63 lbs/day	Based on limiting criteria of monthly average NPDES Permit limit of 4.3 µg/L (ppb).
Existing Domestic/Commercial Concentration	0.79 µg/L (ppb)	0.79 µg/L (ppb)	0.79 µg/L (ppb)	Calculated from sampling data.
Safety Factor	20%	20%	20%	Range is 10% to 20% per the Local Limit Guidance.
Removal Efficiency across POTW	21%	21%	69%	See memo and previous tables.
Allowable Headworks Loading	0.43 lbs/day	0.43 lbs/day	1.21 lbs/day	Calculated based on adjusting MAHL by 20% and subtracting existing domestic loading. For the flow-based approach, the Allowable Headworks Loading becomes the local limit.
Non-Contributory Flow	2.48 MGD	2.48 MGD	2.48 MGD	Non-contributory means no measurable detections of cyanide (amenable). Assumes no cyanide in 90% of industrial user flows to ECSD.
Non-Contributory Loading	0 lbs/day	2 x 10-8 lbs/day	2 x 10-8 lbs/day	Non-contributory means no measurable detections of cyanide (amenable). For flow-based allocation method, loading assumes background cyanide of 0.79 µg/L.
Contributory Headworks Loading	0.43 lbs/day	0.43 lbs/day	1.21 lbs/day	Calculated by subtracting non-contributory loading from the allowable headworks loading.
Contributory Flow	2.76 MGD	0.28 MGD	0.28 MGD	Contributory means having detectable levels of cyanide (amenable). For flow-based allocation method, contributory flows assumed to be 10% of industrial user flows to ECSD.
Proposed Local Limit for Safety-Kleen	19 µg/L (ppb)	184 µg/L (ppb)	518 µg/L (ppb)	Calculated by conversion of the contributory headworks mass-based loading to a concentration-based limit utilizing the contributory flow. The flow-based limit would be distributed to all contributory users equally.

Table 4. Summary of ECSD Local Limit Mass-Based Allocation Methods for Cyanide (Amenable)

Element	Equal Allocation	Flow-Based Allocation		Notes/Discussion
		MRE = 21%	MRE = 69%	
POTW Flow	13.92 MGD	13.92 MGD	13.92 MGD	POTW design flow of 15 MGD (13.92 MGD is average flow and is appropriate to use per the Local Limit Guidance).
Industrial User Flow	2.76 MGD	2.76 MGD	2.76 MGD	No comments. Calculated from known industrial users and therefore appropriate to use per the Local Limits Guidance.
Maximum Allowable Headworks Loading (MAHL)	0.63 lbs/day	0.63 lbs/day	0.63 lbs/day	Based on limiting criteria of monthly average NPDES Permit limit of 4.3 µg/L (ppb).
Existing Domestic/Commercial Concentration	0.79 µg/L (ppb)	0.79 µg/L (ppb)	0.79 µg/L (ppb)	Calculated from sampling data.
Safety Factor	20%	20%	20%	Range is 10% to 20% per the Local Limit Guidance.
Removal Efficiency across POTW	21%	21%	69%	See memo and previous tables.
Allowable Headworks Loading	0.43 lbs/day	0.43 lbs/day	1.21 lbs/day	Calculated based on adjusting MAHL by 20% and subtracting existing domestic loading. For the flow-based approach, the Allowable Headworks Loading becomes the local limit.
Non-Contributory Loading	0.43 lbs/day	0.043 lbs/day	0.121 lbs/day	Non-contributory means no measurable detections of cyanide (amenable). Assumes background cyanide in 90% of industrial user loads to ECSD.
Contributory Headworks Loading	0.43 lbs/day	0.387 lbs/day	1.089 lbs/day	Calculated by subtracting non-contributory loading from the allowable headworks loading. Assumes Safety-Kleen is 90% of the cyanide (amenable) loading to the ECSD.
Safety-Kleen Flow	Not Applicable	0.150 MGD	0.150 MGD	Assumed long-term average flow.
Proposed Local Limit for Safety-Kleen	19 µg/L (ppb)	309 µg/L (ppb)	871 µg/L (ppb)	Calculated by conversion of the contributory headworks mass-based loading to a concentration-based limit utilizing the Safety-Kleen long-term average flow.