

PUBLIC WORKS

WASTE WATER - PRETREATMENT
PROGRAM LOCAL LIMITS





PRETREATMENT PROGRAM LOCAL LIMITS

- Water Reclamation Facility (WRF) operated under a Utah Pollutant Discharge System (UPDES) permit
- UPDES governed by the Utah Department of Environmental Quality (DEQ)
- The Local Limits establish allowable concentration of Pollutants of Concern (POCs) that can be received and then removed by the Springville City Water Reclamation Facility (WRF) while meeting permit requirements for effluent and biosolids in addition to protecting the WRF itself.
- Local limits are assessed by Springville City to ensure compliance with the UPDES



WASTEWATER CYCLE





PRETREATMENT PROGRAM LOCAL LIMITS

- The State limits (UPDES Permit) for Pollutants of Concern (POC) for Springville City WRF.

NON - COMPATIBLE POLLUTANT		COMPATIBLE POLLUTANT
Arsenic	Molybdenum	BOD (Biological Oxygen Demand)
Cadmium	Lead	TSS
Chromium	Nickel	Ammonia
Copper	Selenium	Phosphorus
Cyanide	Silver	Oil & Grease
Mercury	Zinc	pH



PRETREATMENT PROGRAM LOCAL LIMITS

- The City's Pretreatment Program Local Limits complies with 40 CFR 403.5(c)(1)

(c) *When specific limits must be developed by POTW.*

(1) Each POTW developing a POTW Pretreatment Program pursuant to § 403.8 shall develop and enforce specific limits to implement the prohibitions listed in paragraphs (a)(1) and (b) of this section. Each POTW with an approved pretreatment program shall continue to develop these limits as necessary and effectively enforce such limits.

- Establishing local limits for POCs not only aids in meeting the requirements for effluent and biosolids but also protects the WRF itself.



PRETREATMENT PROGRAM LOCAL LIMITS

- Local Limits are established based on:
 - Removal efficiencies (based on sampling results)
 - Limiting factor (either effluent or biosolids concentration) of constituent loading
 - Domestic background loading
 - Assumed factors:
 - Safety (10%, 15% for Nickel)
 - Growth (10%)

- Maximum Allowable Headworks Load (MAHL)

- Total allowed concentration/load permitted as influent into the WRF
- Set by most stringent factor (either water quality or biosolids)

Maximum Allowable Industrial Load (MAIL)

- Calculated by reducing MAHL by loading present in domestic background

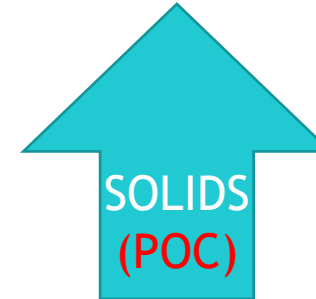
Allowable Industrial Load (AIL)

- Calculated by accounting for growth and safety factors
- Intended to protect the WRF



WASTE LOAD ANALYSIS (WLA) - EFFLUENT STANDARD

	2016		2024	
Constituent	Monthly Limit	Daily Limit	Monthly Limit	Daily Limit
	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Arsenic	0.2034	0.563	0.13	0.43
Cadmium	0.0006	0.009	0.0006	0.0062
Chromium	0.0149	0.024	0.0138	0.0197
Copper	0.0266	0.049	0.0250	0.0398
Cyanide	0.0071	0.039	0.0057	0.0269
Lead	0.0091	0.328	0.0086	0.218
Mercury	0.000016	0.0046	0.000013	0.003
Molybdenum	N/A	N/A	N/A	N/A
Nickel	0.1531	1.893	0.146	1.285
Selenium	0.0062	0.0327	0.0057	0.023
Silver	0	0.0203	N/A	0.0195
Zinc	0.3483	0.331	0.333	0.320



STATE LIMITS





SPRINGVILLE LOCAL LIMITS (NON- COMPATIBLE POC)

	2019		2024		
Constituent	AIL MONTHLY LIMITS		AIL MONTHLY LIMITS		Limiting Factor (WQ or Biosolids)
	(mg/L)	#/day	(mg/L)	#/day	
Arsenic	1.29	10.77	0.966	0.81	Biosolids
Cadmium	0.007	0.059	0.0778	0.065	WQ
Chromium	0.131	1.10	2.74	2.29	WQ
Copper	0.296	2.47	5.18	4.32	WQ
Cyanide	0.0994	0.829	0.841	0.70	WQ
Lead	0.088	0.73	0.088	0.73	WQ (Monthly) Biosolids (Daily)
Mercury	0.0047	0.0055	0.0015	0.0013	WQ
Molybdenum	N/A	N/A	N/A	N/A	Biosolids
Nickel	0.905	7.54	8.34	6.95	WQ (Monthly) Biosolids (Daily)
Selenium	0.033	0.276	0.464	0.39	WQ (Monthly) Biosolids (Daily)
Silver	0.299	2.49	N/A	N/A	WQ
Zinc	28.3	26.42	27.51	22.94	WQ (Daily) Biosolids (Monthly)

CITY LOCAL
LIMITS

POC

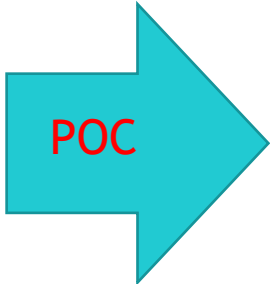




SPRINGVILLE LOCAL LIMITS (COMPATIBLE POC)

Constituent	WRF	Domestic (@ 5.5 MGD)			Industrial Users			
	Capacity	Concentration	Loading	Total MAIL/AIL*	Nestle MAIL/AIL		Non-Nestle MAIL/AIL**	
	#/day	mg/L	#/day	#/day	#/day	mg/L	#/day	mg/L
BOD ₅	22,300	209	9,587	12,713	12,510	1,500	203	244
TSS	9,374	165	7,569	1,805	1,418	170	388	465
Ammonia-N	1,093	23	1,055	38	14	1.70	24	29
Phosphorous	988	6.5	298	690	250	30	440	527
** Includes sperate 1.0 MGD influent form Nestle pretreatment facility and total dedicated industrial flow of 1.1 MGD. Industrial flow excluding Nestles is 0.1 MGD								

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LIMITS





PRETREATMENT PROGRAM LOCAL LIMITS

- There are five (5) businesses in Springville who are subject to permitting due to their effluent stream. They are:
 - Duris Electroplating: Non-Compatible Pollutants
 - Flowsreve: Non-Compatible Pollutants
 - Nestles: Compatible Pollutants
 - Supranaturals: Compatible Pollutants
 - Altaview Concrete: Compatible Pollutants
- The 2023 average constituent results show that all businesses are well below the proposed limits and will NOT be affected by these new limits.

PUBLIC WORKS

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QUESTIONS?