



City of Needles, California Employee Report

CITY COUNCIL/NPUA Board of Public Utilities Regular Special

Meeting Date: January 19, 2021

Title: Needles PPR Report – December 2020

Background: Current year comparison below;

**CURRENT YEAR:
December 2020**

	Current	YTD	% change prior year to current year YTD
Net Diversion	149.38	1,960.72	6%
Measured Returns	39.04	389.52	
Unmeasured Returns	37.99	659.61	
Consumptive Use	72.35	911.59	(based on consumptive use)

**PRIOR YEAR:
December 2019**

			% of PPR Remaining
Net Diversion	112.34	1,829.21	22%
Measured Returns	26.95	348.96	*Based on CY20 Water Order of 2,528 diversion
Unmeasured Returns	47.51	526.56	
Consumptive Use	37.88	853.69	

The City of Needles water order for 2020 is;

PPR Limits	1,223	1,223
SCIA Agreement (145)	-	145
PPR Entitlement		1,078
LCWSP SCIA Limit		+ 527
2020 Consumption		1,605
2020 Diversion	2,261	

Fiscal Impact:

Recommended Action: No Action Needed – Information Only

Submitted By: Rainie Torrance

City Management Review: Rick

Date: 1/14/21

Approved: Not Approved: Tabled: Other:

Agenda Item: 6.

CITY OF NEEDLES
WATER ACCOUNTING
MONTHLY CALCULATION SHEET
CALENDAR YEAR 2020

Diversions - Pumped from Wells	Pumped (Acre-Feet)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
Well #8	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Well # 15 (formerly #10)	99.69	94.25	92.43	98.63	133.32	145.88	164.01	168.97	155.19	133.62	109.83	102.21	1,498.03	
Well #11	18.60	0.00	0.00	0.34	0.00	0.04	0.00	0.47	0.00	0.00	0.00	0.84	20.29	
Well #12	2.45	34.65	31.01	35.61	63.95	54.29	53.26	30.75	1.84	67.43	57.90	46.36	479.50	
Sub-Total	120.74	128.90	123.44	134.61	197.27	200.21	217.27	200.19	157.03	201.05	167.73	149.41	1,997.85	
Delivered to Ft. Mojave Indian Tribe (AZ)	3.08	7.34	6.73	0.54	0.94	0.49	0.28	0.36	0.69	0.22	0.00	0.03	20.70	
Delivered to Ft. Mojave Indian Tribe (CA)	0.00	0.00	1.88	0.00	0.00	0.06	0.00	0.00	4.53	9.96	0.00	0.00	16.43	
Sub-Total	3.08	7.34	8.61	0.54	0.94	0.55	0.28	0.36	5.22	10.18	0.00	0.03	37.13	
City of Needles' Net Diversion	117.66	121.56	114.83	134.07	196.33	199.66	216.99	199.83	151.81	190.87	167.73	149.38	1,960.72	
Uses of Water														
Commercial Accounts	31.47	28.28	28.15	34.63	34.46	45.93	61.82	55.60	50.34	57.73	51.13	92.85	572.39	
Residential Accounts	29.95	27.88	24.02	30.77	35.89	50.23	53.88	64.73	54.40	45.87	44.49	33.52	495.63	
Golf Course	18.60	16.50	28.88	38.26	63.94	54.28	53.25	3.13	1.84	67.43	57.90	46.36	450.37	
Parks, Ballparks, Cemetery	2.35	2.88	3.26	3.70	4.14	8.95	9.58	10.80	11.51	10.04	7.40	4.21	78.82	
Total	82.37	75.54	84.31	107.36	138.43	159.39	178.53	134.26	118.09	181.07	160.92	176.94	1,507.21	

**CALENDAR YEAR 2020
WASTEWATER TREATMENT PLANT**

	Mean Flow	# Days	A/F	A/F Return
Jan	0.305	31	29.02	28.15
Feb	0.268	29	23.85	23.14
Mar	0.269	31	25.59	24.83
Apr	0.256	30	23.57	22.86
May	0.290	31	27.59	26.76
Jun	0.284	30	26.15	25.36
Jul	0.288	31	27.40	26.58
Aug	0.444	31	42.24	40.98
Sep	0.502	30	46.22	44.83
Oct	0.480	31	45.67	44.30
Nov	0.478	30	44.01	42.69
Dec	0.423	31	40.25	39.04
TOTAL	4.287	366	401.56	389.52

Daily mean flow x #days mo X 1,000,000 = gal/mo
divided by 7.48 divided by 43560 = A/F mo

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Pumped from Wells													
Well #8	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Well # 15 (FKA #10)	99.69	94.25	92.43	98.63	133.32	145.88	164.01	188.97	155.19	133.62	109.83	102.21	1,498.03
Well #11	18.60	0.00	0.00	0.34	0.00	0.04	0.00	0.47	0.00	0.00	0.00	0.84	20.29
Well #12	2.45	34.65	31.01	35.61	63.95	54.29	53.26	30.75	1.84	67.43	57.90	46.36	479.50
Sub-Total	120.74	128.90	123.44	134.61	197.27	200.21	217.27	200.19	157.03	201.05	167.73	149.41	1,997.85
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Sub-Total	3.08	7.34	8.61	0.54	0.94	0.55	0.28	0.36	5.22	10.18	0.00	0.00	37.13
City of Needles' Net Diversion	117.66	121.56	114.83	134.07	196.33	199.66	216.99	199.83	151.81	190.87	167.73	149.38	1,960.72

Return and Other Credits													
Measured Returns													
Sewer Plant's Rapid Infiltration Ponds ¹	28.15	23.14	24.83	22.86	26.76	25.36	26.58	40.98	44.83	44.30	42.69	39.04	389.52
Unmeasured Returns													
Percolation from Golf Course ²	0.92	0.00	3.85	18.63	18.62	6.89	9.41	0.00	0.00	48.36	36.52	30.09	173.27
Percolation from Parks ³	0.94	1.15	1.30	1.48	1.66	3.58	3.83	4.32	4.60	4.02	2.96	1.68	31.53
Percolation from Large Commercial Users ⁴	0.76	0.68	0.68	0.83	0.83	1.10	1.48	1.33	1.21	1.39	1.23	2.23	13.74
System Losses ⁵	35.29	46.02	30.52	26.71	57.90	40.27	38.46	65.57	33.72	9.80	6.81	0.00	391.07
Septic Tank Returns ⁶	4.12	3.84	4.41	4.22	4.12	3.96	4.54	4.48	4.16	4.16	3.98	3.99	50.00
Total Unmeasured Returns	42.03	51.69	40.76	51.87	83.13	55.81	57.73	75.71	43.70	67.72	51.49	37.99	659.61
Total Returns	70.18	74.83	65.59	74.73	109.89	81.17	84.31	116.69	88.53	112.02	94.18	77.03	1,049.13

Footnotes:
1/Calculated as WWTP Total Discharge*0.97.
2/Calculated as Monthly Delivery to Golf Course*Efficiency-Monthly ET. Efficiency =0.9
3/Calculated as Delivery to Parks,Ballparks,Cemetery*0.40.
4/Calculated as 24% of Deliveries to Commercial Accounts*0.10.
5/Calculated as City of Needles' Net Diversions- Total Uses.
6/Total Annual UMRF from septic tanks = 50; assumes 210 septic units*0.6 AF/yr*0.40 (where 0.40 = UMRF Factor). Annual volume is distributed monthly using a monthly distribution factor.

Consumptive Use													
Diversion	117.66	121.56	114.83	134.07	196.33	199.66	216.99	199.83	151.81	190.87	167.73	149.38	1,960.72
Measured Returns	28.15	23.14	24.83	22.86	26.76	25.36	26.58	40.98	44.83	44.30	42.69	39.04	389.52
Unmeasured Returns	42.03	51.69	40.76	51.87	83.13	55.81	57.73	75.71	43.70	67.72	51.49	37.99	659.61
Consumptive Use	47.48	46.73	49.24	59.34	86.44	118.49	132.68	83.14	63.28	78.85	73.55	72.35	911.59