



City of Needles, California Employee Report

CITY COUNCIL/NPUA Board of Public Utilities Regular Special

Meeting Date: January 18, 2022

Title: Needles PPR Report – November 2021

Background: Current year comparison below;

**CURRENT YEAR:
November 2021**

	Current	YTD	% change prior year to current year YTD
Net Diversion	126.88	1,815.90	23%
Measured Returns	43.23	422.23	
Unmeasured Returns	25.76	305.77	
Consumptive Use	57.89	1,087.90	(based on consumptive use)

**PRIOR YEAR:
October 2020**

			% of PPR Remaining
Net Diversion	167.73	1,811.34	28%
Measured Returns	42.69	350.48	
Unmeasured Returns	51.49	621.62	
Consumptive Use	73.55	839.24	

*Based on CY21 Water Order of 2,528 diversion

The City of Needles water order for 2021 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: 1/7/22

Approved: Not Approved: Tabled: Other:

Agenda Item: 12.

CITY OF NEEDLES
 WATER ACCOUNTING
 MONTHLY CALCULATION SHEET
 CALENDAR YEAR 2021

Diversions - Pumped from Wells	Pumped (Acre-Feet)												Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Well #8	0.10	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.03	0.00	0.00	0.16
Well # 15 (formerly #10)	91.01	85.70	103.47	124.32	157.96	152.31	156.98	149.78	136.65	133.67	107.17	0.00	1,399.02
Well #11	0.01	0.00	0.71	0.00	0.00	1.59	2.46	0.00	0.08	0.78	0.00	0.00	5.63
Well #12	34.67	40.70	47.65	54.69	53.54	51.77	51.00	52.71	3.28	65.88	37.60	0.00	493.49
Sub-Total	125.79	126.40	151.84	179.01	211.50	205.68	210.45	202.49	140.01	200.36	144.77	0.00	1,898.30
Delivered to Ft. Mojave Indian Tribe (AZ)	3.09	3.09	2.69	2.69	2.70	1.45	0.28	4.52	0.64	0.40	0.21	0.00	21.76
Delivered to Ft. Mojave Indian Tribe (CA)	3.26	8.02	1.84	1.97	4.74	4.76	4.76	4.77	4.53	4.31	17.68	0.00	60.64
Sub-Total	6.35	11.11	4.53	4.66	7.44	6.21	5.04	9.29	5.17	4.71	17.89	0.00	82.40
City of Needles' Net Diversion	119.44	115.29	147.31	174.35	204.06	199.47	205.41	193.20	134.84	195.65	126.88	0.00	1,815.90
Uses of Water													
Commercial Accounts	43.04	36.89	45.60	57.40	74.70	77.95	68.60	68.69	69.53	63.77	42.46	0.00	648.63
Residential Accounts	31.25	23.06	49.59	56.41	68.79	59.14	70.17	61.96	46.01	56.81	40.51	0.00	563.70
Golf Course	4.40	40.70	47.65	54.69	53.54	51.77	51.00	52.71	3.28	65.82	37.60	0.00	463.16
Parks, Ballparks, Cemetery	34.67	3.54	4.47	5.85	7.03	10.61	15.63	9.84	9.21	9.19	6.31	0.00	116.35
Total	113.36	104.19	147.31	174.35	204.06	199.47	205.40	193.20	128.03	195.59	126.88	0.00	1,791.84

**CALENDAR YEAR 2021
WASTEWATER TREATMENT PLANT**

	Mean Flow	# Days	A/F	A/F Return
Jan	0.440	31	41.86	40.61
Feb	0.453	28	38.93	37.76
Mar	0.441	31	41.96	40.70
Apr	0.464	30	42.72	41.44
May	0.462	31	43.96	42.64
Jun	0.449	30	41.34	40.10
Jul	0.468	31	44.53	43.19
Aug	0.486	31	46.24	44.85
Sep	0.483	30	44.47	43.14
Oct	0.050	31	4.71	4.57
Nov	0.484	30	44.56	43.23
Dec		31	0.00	0.00
TOTAL	4.680	365	435.28	422.23

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

CITY OF NEEDLES
WATER ACCOUNTING
MONTHLY CALCULATION SHEET
CALENDAR YEAR 2021

Diversions													
	Pumped (Acre-Feet)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Pumped from Wells													
Well #8	0.10	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.03	0.00	0.00	0.16
Well # 15 (FKA #10)	91.01	85.70	103.47	124.32	157.96	152.31	156.98	149.78	136.65	133.67	107.17	0.00	1,399.02
Well #11	0.01	0.00	0.71	0.00	0.00	1.59	2.46	0.00	0.08	0.78	0.00	0.00	5.63
Well #12	34.67	40.70	47.65	54.69	53.54	51.77	51.00	52.71	3.28	65.88	37.60	0.00	493.49
Sub-Total	125.79	126.40	151.84	179.01	211.50	205.68	210.45	202.49	140.01	200.36	144.77	0.00	1,898.30
Delivered to Ft. Mojave Indian Tribe (AZ)	3.09	3.09	2.69	2.69	2.70	1.45	0.28	4.52	0.64	0.40	0.21	0.00	21.76
Delivered to Ft. Mojave Indian Tribe (CA)	3.26	8.02	1.84	1.97	4.74	4.76	4.76	4.77	4.53	4.31	17.68	0.00	60.64
Sub-Total	6.35	11.11	4.53	4.66	7.44	6.21	5.04	9.29	5.17	4.71	17.89	0.00	82.40
City of Needles' Net Diversion	119.44	115.29	147.31	174.35	204.06	199.47	205.41	193.20	134.84	195.65	126.88	0.00	1,815.90

Return and Other Credits													
Measured Returns													
Sewer Plant's Rapid Infiltration Ponds ¹	40.61	37.76	40.70	41.44	42.64	40.10	43.19	44.85	43.14	4.57	43.23	0.00	422.23
Unmeasured Returns													
Percolation from Golf Course ²	0.00	21.09	20.74	33.41	9.26	4.63	7.38	11.92	0.00	46.91	18.25	0.00	173.59
Percolation from Parks ³	13.87	1.42	1.79	2.34	2.81	4.24	6.25	3.94	3.68	3.68	2.52	0.00	46.54
Percolation from Large Commercial Users ⁴	1.03	0.89	1.09	1.38	1.79	1.87	1.65	1.65	1.67	1.53	1.02	0.00	15.57
System Losses ⁵	6.08	11.10	0.00	0.00	0.00	0.00	0.01	0.00	6.81	0.06	0.00	0.00	24.06
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	0.00	46.01
Total Unmeasured Returns	25.10	38.33	28.04	41.35	17.99	14.71	19.84	21.99	16.33	56.33	25.76	0.00	305.77
Total Returns	65.71	76.09	68.74	82.79	60.63	54.81	63.03	66.84	59.47	60.90	68.99	0.00	728.00

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, Cemetry*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													
Measured Returns	119.44	115.29	147.31	174.35	204.06	199.47	205.41	193.20	134.84	195.65	126.88	0.00	1,815.90
Unmeasured Returns	40.61	37.76	40.70	41.44	42.64	40.10	43.19	44.85	43.14	4.57	43.23	0.00	422.23
Consumptive Use	53.73	39.20	78.57	91.56	143.43	144.66	142.38	126.36	75.37	134.75	57.89	0.00	1,087.90