

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: July 29, 2022

TO: Chairman and Members, Northern Nevada Water Planning Commission (NNWPC)

FROM: Kimberly Rigdon, Water Resources Program Manager

SUBJECT: Action, discussion, and possible direction to staff and acceptance of revisions to Table 2-1 Water Resources Baseline Table (Table 2-1) for Washoe County within Chapter 2 “Water Resources” of the draft 2021-2040 Comprehensive Regional Water Management Plan (2021-2040 RWMP).

SUMMARY

Table 2-1 within Chapter 2 “Water Resources” of the 2021-2040 RWMP was presented to the NNWPC on February 3, 2021, for acceptance. The table included updated information as of August 2019. Staff received comments from members of the NNWPC to perform a more current review of Table 2-1 and validate the information in the table. Subsequently, Table 2-1 was updated and revised as follows:

- Updated the “Water Rights: Decreed, State Engineer Permitted and/or Certificated” column with the most current Hydrographic Area Summary reports (as of February 2022) provided by the Nevada Division of Water Resources (State Engineer) for Basins 83, 84, 87 89, 91, 92A & 92B, and 21.
- Corrected the “Estimated Perennial Yield” column for Basins 87 and 88.
- Removed the “Imported/Exported Supplies” column. This information is supplemental and was not used in the overall calculations for Total Estimated Sustainable Water Resources.
- Removed the “Estimated M&I Commitments” column and subsequent “Comments” columns because the information is outdated.

The revisions to the data result in “Estimated Sustainable Water Resources” of 192,988 acre-feet annually (afa) and the modified Table 2-1 has been incorporated into the 2021-2040 RWMP. The revised Chapter 2 may be downloaded at http://www.wrwc.us/2021-2040_draft_chapters.html.

BACKGROUND

The Western Regional Water Commission Act Section 41(d) requires the RWMP identify and provide for existing and future sources of water to meet the present or future needs of the planning area. Further, the Regional Planning Governing Board adopted certain amendments to the Truckee Meadows Regional Plan identifying the NNWPC and Western Regional Water Commission as the entities to perform a comparison, prior to the adoption of the Consensus

Forecast for Washoe County, of the estimated population that can be supported by the sustainable water resources as set forth in the RWMP (provided in Table 2-1).

RECOMMENDATION

Staff proposes the NNWPC accept the revisions to Chapter 2 “Water Resources” Table 2-1 for inclusion in the 2021-2040 RWMP with or without changes and provide direction to staff as appropriate.

KR:BW:jp

Attachment 5a Table 2-1 Updated February 2022

Attachment 5b Table 2-1 Updated August 2019

Table 2-1: Water Resource Baseline Table for Washoe County
Updated February 2022

Basin #	Basin	Water Rights: Decreed, State Engineer Permitted, and/or Certificated Rights*	Estimated Perennial Yield	Estimated Sustainable Water Resources	Notes	Estimated Existing Domestic Well Allocation (-8)	Comments
		(afa)	(afa)	(afa)		(afa)**	
83	TRACY SEGMENT						
	Perennial Groundwater	11,091	11,500	11,091	-1	90	Irrigation (641 afa), Stock (29 afa), Commercial (405 afa) and Industrial (1,738 afa) water right conversion subject to reduction. Mining and Milling water rights (696 afa) may not be available for conversion.
84	WARM SPRINGS VALLEY						
	Perennial Groundwater	6,886	3,000	3,000	-1	1,020	Irrigation water rights (5,322 afa), Stock (41 afa), Commercial (44 afa), and Domestic (628 afa) are subject to conversion reduction. Recreation (28 afa) and Environmental water rights (556 afa) are not available for conversion.
85	SPANISH SPRINGS VALLEY						
	Perennial Groundwater	6,326	1,000	1,000	-1	430	Water rights and domestic well allocations exceed perennial yield. Irrigation 598 afa), Stock (23 afa), and Commercial (174 afa) water right conversion subject to reduction. Recreation (609 afa) water rights may not be available for conversion.
86	SUN VALLEY						
	Perennial Groundwater	14	25	14	-1	90	Water rights and domestic well allocations exceed perennial yield. Irrigation water rights (14 afa) are subject to conversion reduction.
87/88	TRUCKEE MEADOWS/PLEASANT VALLEY						
	Perennial Groundwater	46,595	30,000	30,000	-2	2,450	Irrigation (8,815 afa), Stock (69 afa), Commercial (1,061 afa), and Industrial (1,088 afa) water right conversion subject to reduction.
	Truckee River†	188,020***	--	103,000	-3		Environmental (3,867 afa), Recreation (1,040 afa), Wildlife (1,327 afa), and Other (84 afa) may not be available for conversion.
	Truckee River-Tributary	36,380	--	--	-4		
89	WASHOE VALLEY						
	Perennial Groundwater	10,372	15,000	10,372	-1	1,750	Irrigation (5882 afa), Stock (68 afa), Commercial (19 afa), and Industrial (0 afa) water right conversion subject to reduction. Mining & Mineral (0 afa), Recreation (955 afa), Wildlife (832 afa), and Other (2 afa) may not be available for conversion.
	Washoe Valley Creeks	25,280	--	--	-4		Washoe Lake, the headwaters of Steamboat Creek, is fed by McEwen, Bryan, Musgrove, Thompson, Lewers, Davis, White Rock, Little Valley, Frantown, and Ophir creeks.
91	TRUCKEE CANYON SEGMENT						
	Perennial Groundwater	3415	2000	2,000	-1	530	Commercial (64 afa), Domestic (268 afa), Irrigation (69 afa), and Stock (124 afa) are subject to conversion reduction. Recreation (3 afa) are not available for conversion.
92A/92B	LEMMON VALLEY (WEST & EAST)						
	Perennial Groundwater	2853	1300	1,300	-5	2,160	Water rights and domestic well allocations exceed perennial yield. Irrigation (8 afa), Domestic (62 afa), Commercial (32 afa), and Industrial (2 afa) are subject to conversion reduction. Environmental water rights (123 afa) and Recreation (78 afa) are not available for conversion.
93	ANTELOPE VALLEY						

Basin #	Basin	Water Rights: Decreed, State Engineer Permitted, and/or Certificated Rights*	Estimated Perennial Yield	Estimated Sustainable Water Resources	Notes	Estimated Existing Domestic Well Allocation (-8)	Comments
	Perennial Groundwater	70	150	70	-1	210	Water rights and domestic well allocations exceed perennial yield. Domestic (12 afa) and Stock (2 afa) are subject to conversion reduction.
94	BEDELL FLAT						
	Perennial Groundwater	39	550	39	-1	70	Commercial (9 afa), Domestic (8 afa), and Stock (22 afa) are subject to conversion reduction.
95	DRY VALLEY						
	Perennial Groundwater	26	3,000	26	-1	10	Irrigation water rights (25 afa) are subject to conversion reduction.
97	HONEY LAKE VALLEY						
	Perennial Groundwater†	13,690	13,000	13,000	-1	30	Irrigation water rights (1,240 afa) and Stock (29 afa) are subject to conversion reduction.
99	RED ROCK VALLEY						
	Perennial Groundwater	1,076	1,200	1,076	-1	380	Commercial (5 afa), Irrigation water rights (564 afa), and Stock (3 afa) are subject to conversion reduction.
100/100A	COLD SPRINGS VALLEY/LONG VALLEY SUB-AREA						
	Perennial Groundwater	4,766	1,000	1,000	-6	230	Water rights and domestic well allocations exceed perennial yield. Irrigation water rights (1,105 afa), Commercial (1 afa) and Stock (5 afa) are subject to conversion reduction. Environmental water rights (40 afa) are not available for conversion.
21	SMOKE CREEK DESERT						
	Perennial Groundwater	56,071	16,000	16,000	-7	10	Irrigation water rights (55,561 afa), Stock (52 afa), and Commercial (8 afa) are subject to conversion reduction. Water rights issued for Wildlife (449 afa) may have significant encumbrances making them unavailable for conversion to M&I or subject to conversion reduction.
Total Estimated Sustainable Water Resources				192,988			

NOTES:

afa = Acre-Feet Annually

M&I = municipal and industrial

* Water rights include temporary rights, supplemental rights, nonconvertible rights, and rights subject to reduction upon conversion based on the State Engineer's policy.

** Water right values rounded to nearest 10 acre-feet per annum.

*** Orr Ditch Decree total of approximately 188,024 afa of rights excluding Claims 3 & 4.

-- No data.

† Exports of water resources not limited to specified hydrobasins and are subject to change based on future needs.

-1 Groundwater availability based on State Engineer's estimate of Perennial Yield subject to final determination.

-2 Groundwater availability for the Truckee Meadows and Pleasant Valley Hydrobasins combined based on State Engineer's estimate of perennial yield.

-3 Portion of the Truckee River Operating Agreement 119,000 water supply dedicated to supply demand in the Truckee Meadows; excluding 15,950 afa of groundwater production permitted by State Engineer's Office.

-4 No State Engineer estimate of perennial yield that could be used for M&I.

-5 Combined State Engineer's estimate of perennial yield for Lemmon Valley West and Lemmon Valley East.

-7 Potential water importation project; pending water right applications and approval for export from hydrobasin subject to State Engineers' approval.

-8 Based on Washoe County Water Resource geographic information system database count using Washoe County Assessor's records and State Engineer's Well-Log database, allocation assumes 1 afa per well.

Table 2-1 Water Resource Baseline Table for Washoe County

Updated August 2019

Basin #	Basin	Water Rights: Decreased, State Engineer permitted, and/or certificated rights*	Estimated Perennial Yield	Estimated Sustainable Water Resources	Notes	Imported/ (exported) Supplies	Estimated M&I Commitments	Comments	Estimated Existing Domestic Well Allocation (9)	Comments
---a---	---b---	---c---	---d---	---e---		---f---	---g---		---h---	---i---
83	TRACY SEGMENT									
	Perennial Groundwater	11241	11500	11241	(1)		160	C-1	90	Irrigation (641 afa), Stock (29 afa), Commercial (405 afa) and Industrial (1,692 afa) water right conversion subject to reduction. Mining and Milling water rights (656 afa) may not be available for conversion.
84	WARM SPRINGS V.									
	Perennial Groundwater	6408	3000	3000	(1)		0	C-1	1020	Irrigation water rights (4795 afa), Stock (45 afa), Commercial 20 afa, Domestic 622 afa are subject to conversion reduction. Recreation (28 afa) and Environmental water rights (556 afa) are not available for conversion.
85	SPANISH SPRINGS V.									
	Perennial Groundwater	6326	1000	1000	(1)		5370	C-1	430	Water rights and domestic well allocations exceed perennial yield. Irrigation 598 afa), Stock (23 afa) and Commercial (174 afa) water right conversion subject to reduction. Recreation (609 afa) water rights may not be available for conversion.
	Truckee River Importation†				(2)	3920	3920			
86	SUN V.									
	Perennial Groundwater	14	25	14	(1)		0	C-1	90	Water rights and domestic well allocations exceed perennial yield. Irrigation water rights (14 afa) are subject to conversion reduction.
	Truckee River Importation†				(2)	2380	2380			
87/88	TRUCKEE MEADOWS/PLEASANT V									
	Perennial Groundwater	46602	46602	46602	(3)		23530	C-1	2450	Irrigation (8,812 afa), Stock 69 afa), Commercial (1,066 afa) and Industrial (1,088 afa) water right conversion subject to reduction. Environmental (3,867 afa), Recreation (1,062 afa), Wildlife (1,327 afa) and Other (84 afa) may not be available for conversion.
	Truckee River†	188020***	103000	103000	(4)	(10650)	84000			
	Truckee River-Tributary	36380	--	--	(5)		2350	C-4		
89	WASHOE V.									
	Perennial Groundwater	10395	15000	15000	(1)		840	C-1	1750	Irrigation (5895 afa), Stock(68 afa), Commercial (26 afa) and Industrial (0 afa) water right conversion subject to reduction. Mining & Mineral (0 afa), Recreation (955 afa), Wildlife (832 afa) and Other (2 afa) may not be available for conversion.
	Washoe Valley Creeks	25280	--	--	(5)					Washoe Lake, the headwaters of Steamboat Creek, is fed by McEwen, Bryan, Musgrove, Thompson, Lewers, Davis, White Rock, Little Valley, Franktown, and Ophir creeks.
91	TRUCKEE CANYON SEGMENT									
	Perennial Groundwater	3315	2000	2000	(1)		10		530	Commercial (38 afa), Domestic (261 afa), Industrial (1 afa), Irrigation (68 afa), and Stock (124 afa), subject to conversion reduction. Recreation (3 afa) are not available for conversion.
92A/92B	LEMMON V. (WEST & EAST)									
	Perennial Groundwater	2860	1300	1300	(6)		840	C-1	2160	Water rights and domestic well allocations exceed perennial yield. Irrigation (8 afa), Domestic (62 afa), Commercial (32 afa) and Industrial (2 afa) subject to conversion reduction. Environmental water rights (123 afa) and Recreation (78 afa) are not available for conversion.
	Truckee River Importation†				(2)	4350	4350			
	Honey Lake Importation†				(7)	8000	0	C-2		
93	ANTELOPE V.									
	Perennial Groundwater	70	150	70	(1)		0	C-1	210	Water rights and domestic well allocations exceed perennial yield. Domestic (12 afa) and Stock (2 afa) subject to conversion reduction.
94	BEDELL FLAT									
	Perennial Groundwater	39	550	550	(1)		0	C-1	70	Commercial (9 afa), Domestic (8 afa) and Stock (22 afa) subject to conversion reduction.
95	DRY V.									
	Perennial Groundwater	26	3000	3000	(1)		0	C-1	10	Irrigation water rights (25 afa) subject to conversion reduction.
97	HONEY LAKE V.									
	Perennial Groundwater†	13690	13000	13000	(1)	(8000)	0	C-1	30	Irrigation water rights 1540 afa) and Stock (29 afa) are subject to conversion reduction.
99	RED ROCK V.									
	Perennial Groundwater	1036	1200	1200	(1)		0	C-1	380	Commercial (5 afa), Irrigation water rights (164 afa), and Stock (3 afa) are subject to conversion reduction.
100/100A	COLD SPRING V./LONG V. SUB AREA									
	Perennial Groundwater	4766	1000	1000	(8)		2400	C-3	230	Water rights and domestic well allocations exceed perennial yield. Irrigation water rights (1105 afa), Commercial (1 afa) and Stock (5 afa) are subject to conversion reduction. Environmental water rights (40 afa) are not available for conversion.
21	SMOKE CREEK DESERT									
	Perennial Groundwater	56,798	16,000	16000	(12)		0		10	Irrigation water rights (56,598 afa), Stock (89 afa) and Commercial (8 afa) subject to conversion reduction. Water rights issued for Wildlife (449 afa) may have significant encumbrances making them unavailable for conversion to M&I or subject to conversion reduction.
Total Estimated Sustainable Water Resources				217,978						

NOTES:

- * Water rights include temporary rights, supplemental rights, nonconvertible rights and rights subject to reduction upon conversion based on State Engineer's policy. (9) Based on Washoe County Water Resource GIS database count using Washoe County Assessor's records and State Engineer's Well-Log database, allocation assumes 1 afa per well.
- ** Water right values rounded to nearest ten acre-feet annum. (10) Water rights based on 4000 afa from STMWRF and 6700 afa from TMWRF. Estimated yield based on 2006 TMWRF, Sparks and Reno data records (ECO.LOGIC)
- *** Orr Ditch Decree total of approx. 188,024 afa of main stem rights excluding Claims 3 & 4. (11) 2006 reclaimed water data from RSWRF, and Washoe County DWR wastewater influent records for STMWRF, CSWRF and LVWRF (Washoe County, DWR)
- No data. (12) Potential water importation project; Pending water right applications and approval for export from hydrobasin subject to State Engineers' approval.
- † Exports of water resources not limited to specified hydrobasins and are subject to change based on future needs.
- (1) Groundwater availability based on State Engineer's estimate of Perennial Yield subject to final determination (Tracy Segment ruling currently under appeal).
- (2) Imported allocation of TMWA's resources.
- (3) Groundwater availability for the Truckee Meadows and Pleasant Valley Hydrobasins combined based on State Engineer's estimate of Perennial yield.
- (4) Portion of TROA 119,000 water supply dedicated to supply demand in the Truckee Meadows; excluding 15,950 AFA of groundwater production permitted by State Engineer's Office.
- (5) No State Engineer estimate of perennial yield which could be used for M&I
- (6) Combined State Engineer's estimate of perennial yield for Lemmon Valley West and East.
- (7) Importation of groundwater from Honey Lake Hydrobasin.
- (8) Combined State Engineer's estimate of perennial yield for Cold Spring Valley and Long Valley Sub basin area.

COMMENTS ON COMMITMENTS

- C-1 Groundwater dedications/duty by TMWA to serve commitments as reported in the January 24, 2007, Fourth Quarter 2006 report to the State Engineer's Office. Not amended to account for supplemental rights.
- C-2 Commitments not yet established for imported groundwater. TMWA may use available uncommitted imported groundwater to serve existing customers in Lemon Valley. Not amended to account for supplemental rights.
- C-3 Based on State Engineer's Manor of Use Records for 2006 and Utilities Inc. water budget for Cold Springs. Not amended to account for supplemental rights.
- C-4 Creek rights committed for return flow. Adjusted per the State Engineer based on priority