

**IN THE OFFICE OF THE STATE ENGINEER
OF THE STATE OF NEVADA**

INTERIM ORDER

#1308

**RESERVING A PORTION OF GROUNDWATER IN
HYDROGRAPHIC BASINS WITH UNCOMMITTED GROUNDWATER
AS APPLIED TO MULTIPLE COUNTIES WITHIN NEVADA**

I. PURPOSE

The purpose of this Interim Order is to establish reserved groundwater quantities for hydrographic basins with unappropriated groundwater, as required by the 2019 Nevada Legislature in Senate Bill 140.

II. SENATE BILL 140

Existing law allows any person who wishes to appropriate the waters of the State to apply to the State Engineer for a permit to do so. The State Engineer must reject an application under specific circumstances, including where there is no unappropriated water available in the proposed source of supply.¹ Senate Bill (SB) 140 requires that for each basin in which there is groundwater that has not been committed for use, including, without limitation, pursuant to an application, permit, certificate or by any other water user in the basin, as of March 1, 2019, the State Engineer shall reserve 10 percent of the total remaining groundwater that is not committed for use in the basin (reserve quantity). The groundwater reserved pursuant to SB 140 is not available for any use.

III. GROUNDWATER AVAILABLE FOR COMMITMENT

Perennial yield is the primary guideline used by the State Engineer to determine water availability where the source of supply is a groundwater basin. The perennial yield of a groundwater reservoir may be defined as the maximum amount of groundwater that can be withdrawn each year, over the long term, without depleting the groundwater reservoir. Perennial yield is ultimately limited to the maximum amount of natural discharge that can be utilized for beneficial use. The perennial yield cannot be more than the natural recharge to a groundwater basin and in some cases is less.

Perennial yields for Nevada basins were initially estimated through cooperative efforts to study groundwater between the State of Nevada and the U.S. Geological Survey, beginning in

¹ NRS 533.325; NRS 533.370; NRS 533.371.

the 1940s. These studies were published as Water Resources Bulletins, Water Resource Reconnaissance Series Reports, Water Supply Papers, and Professional Papers. In 1971, the State Engineer published Water Planning Report 3, which was a statewide inventory of water resources and water availability that included perennial yield estimates for nearly all of the groundwater basins in Nevada. Perennial yield estimates in Report 3 were based on the best data and analyses available at that time, which was most often the Bulletins and Reconnaissance Reports.

The State Engineer revises perennial yield values as new data, scientific methods and water budget studies become available.² New studies that are scientifically sound often validate the early USGS studies, despite the limited data that was available at that time.

IV. COMMITTED AND AVAILABLE GROUNDWATER

Pursuant to NRS 532.167, the State Engineer prepares and maintains water budgets and calculates and maintains an inventory of water that includes, without limitation: the total amount of groundwater committed in the basin; an estimate of the amount of groundwater used by domestic wells in the basin; and an estimate of the amount of all groundwater that is available for appropriation in the basin.

Groundwater committed is the sum of all permitted, certificated, decreed, reserved, relinquished, revocable, and unadjudicated vested claims to groundwater rights. Domestic wells that are exempt from the permitting process represent an additional commitment of 2 acre-feet per year for each well.³ Groundwater available for appropriation is estimated as the difference between perennial yield and the sum of groundwater committed plus domestic well commitments. This simple estimate of groundwater availability does not account for a wide range of additional variables that the State Engineer considers before approving or rejecting an application to appropriate groundwater.⁴

V. IMPLEMENTATION

For each basin in which there is groundwater that has not been committed for use, Table 1 shows the perennial yield, the total amount of groundwater committed (total committed), the difference between the perennial yield and total committed, and the reserved quantity of groundwater required by SB 140. The quantity of groundwater committed, as represented in Table 1, includes both permanent and temporary appropriations, domestic wells drilled as of

² NRS 533.024(1)(c).

³ NRS 534.180(1).

⁴ NRS 533.370.

March 1, 2019, and pending water right applications filed as of March 1, 2019.⁵ For groundwater basins with a combined perennial yield, the sum of commitments for all basins was subtracted from the perennial yield to determine the total amount of groundwater available, and then the 10 percent reserve was equally divided among the basins.

The State Engineer shall withdraw the reserved quantity from the groundwater available for appropriation. The quantity of groundwater reserved in each basin that is subject to this Interim Order may be revised by Final Order due to circumstances including, but not limited to, adjudication of claims of pre-statutory vested groundwater rights, revisions to the perennial yield, or revisions to the groundwater commitments.


TIM WILSON, P.E.
State Engineer

Dated at Carson City, Nevada this

16th day of March, 2020.

⁵ Nevada Legislature Senate Committee on Natural Resources, Hearing on Senate Bill 140, April 11, 2019, pp. 4-5.

Table 1. Reserved Quantity of Water, by Basin, as Required by SB 140.

Basin No.	Basin Name	Hydrographic Region	Counties ^a	Perennial Yield (PY)	Total Committed + Pending (TC) ^b	Difference of PY and TC ^b	10 Percent Reservation
002	Continental Lake Valley	Northwest	HU	11,000	10,670.64	329.36	32.94
004	Virgin Valley	Northwest	HU, WA	6,000	35.50	5,964.50	596.45
005	Sage Hen Valley	Northwest	HU	250	0.00	250.00	25.00
006	Guano Valley	Northwest	WA, HU	2,000	0.00	2,000.00	200.00
008	Massacre Lake Valley	Northwest	WA	3,000	46.15	2,953.85	295.39
010	Macy Flat	Northwest	WA	250	2.24	247.76	24.78
011	Coleman Valley	Northwest	WA	1,000	6.60	993.40	99.34
012	Mosquito Valley	Northwest	WA	1,500	0.00	1,500.00	150.00
013	Warner Valley	Northwest	WA	1,000	28.00	972.00	97.20
014	Surprise Valley	Northwest	WA	2,000	532.00	1,468.00	146.80
015	Boulder Valley	Northwest	WA	2,000	22.40	1,977.60	197.76
017	Pilgrim Flat	Black Rock Desert	WA	200	0.00	200.00	20.00
018	Painter Flat	Black Rock Desert	WA	1,200	0.00	1,200.00	120.00
019	Dry Valley	Western	WA	100	0.00	100.00	10.00
020	Sano Valley	Black Rock Desert	WA	25	0.00	25.00	2.50
023	Granite Basin	Black Rock Desert	WA	200	0.00	200.00	20.00
025	High Rock Lake Valley	Black Rock Desert	WA, HU	5,000	1,346.99	3,653.01	365.30
027	Summit Lake Valley	Black Rock Desert	HU	1,000	614.00	386.00	38.60
034	Little Owyhee River Area	Snake River Basin	EL, HU	1,400	34.04	1,365.96	136.60
035	South Fork Owyhee River Area	Snake River Basin	EL	8,000	2,488.52	5,511.48	551.15
036	Independence Valley	Snake River Basin	EL	12,000	11,707.25	292.75	29.28
037	Owyhee River Area	Snake River Basin	EL	7,000	2,451.62	4,548.38	454.84
038	Bruneau River Area	Snake River Basin	EL	10,000	19.93	9,980.07	998.01
039	Jarbridge River Area	Snake River Basin	EL	12,000	38.30	11,961.70	1,196.17
040	Salmon Falls Creek Area	Snake River Basin	EL	7,400	6,714.60	685.40	68.54
041	Goose Creek Area	Snake River Basin	EL	1,700	1,237.64	462.36	46.24
042	Marys River Area	Humboldt River Basin	EL		25,258.38		737.57
043	Starr Valley Area	Humboldt River Basin	EL		3,243.37		737.57
044	North Fork Area	Humboldt River Basin	EL	83,000	16,623.24	29,502.60	737.57
045	Lamoille Valley	Humboldt River Basin	EL		8,372.40		737.57
046	South Fork Area	Humboldt River Basin	EL	3,000	155.46	2,844.54	284.45
047	Huntington Valley	Humboldt River Basin	EL, WP	14,000	9,003.56	4,996.44	499.64
050	Susie Creek Area	Humboldt River Basin	EL, EU	2,000	639.96	1,360.04	136.00
053	Pine Valley	Humboldt River Basin	EU, EL	20,000	19,461.50	538.50	53.85

Table 1. Reserved Quantity of Water, by Basin, as Required by SB 140 (continued).

Basin No.	Basin Name	Hydrographic Region	Counties ^a	Perennial Yield (PY)	Total Committed - Pending (TC) ^b	Difference of PY and TC ^b	10 Percent Reservation
064	Clovers Area	Humboldt River Basin	HU, LA, EL		29,033.48		454.51
065	Pumpnickel Valley	Humboldt River Basin	HU, PE	72,000	7,575.47	13,773.00	454.51
066	Kelly Creek Area	Humboldt River Basin	HU, EL		21,617.77		454.51
079	Kumiva Valley	West Central	PE	500	1.12	498.88	49.89
080	Winnemucca Lake Valley	Truckee River Basin	PE, WA, CH	3,300	671.85	2,628.15	262.82
081	Pyramid Lake Valley	Truckee River Basin	WA, CH	7,000	167.09	6,832.91	683.29
110A	Walker Lake Valley-Schurz Subarea	Walker River Basin	MI, LY, CH	1,500	747.67	752.33	75.23
111A	Alkali Valley (Mineral)-Northern Part	Central	MI	300	0.00	300.00	30.00
111B	Alkali Valley (Mineral)-Southern Part	Central	MI	700	0.00	700.00	70.00
112	Mono Valley	Central	MI	300	0.00	300.00	30.00
113	Huntoon Valley	Central	MI	150	38.49	111.51	11.15
115	Adobe Valley	Central	MI	150	0.00	150.00	15.00
119	Rhodes Salt Marsh Valley	Central	MI	1,000	545.34	454.66	45.47
120	Garfield Flat	Central	MI	150	22.40	127.60	12.76
123	Rawhide Flats	Central	CH, MI, LY	500	117.67	382.33	38.23
124	Fairview Valley	Central	CH, MI		39.87		47.50
125	Stingaree Valley	Central	CH		417.53		47.50
126	Cowkick Valley	Central	CH	6,100	569.85	1,900.00	47.50
127	Eastgate Valley Area	Central	CH		489.99		47.50
135	Ione Valley	Central	NY, MI	2,500	201.04	2,298.96	229.90
136	Monte Cristo Valley	Central	ES, MI	400	398.50	1.50	0.15
140A	Monitor Valley-Northern Part	Central	NY, LA, EU	2,000	295.58	1,704.42	170.44
140B	Monitor Valley-Southern Part	Central	NY	9,000	578.02	8,421.98	842.20
144	Lida Valley	Central	ES, NY	350	194.05	155.95	15.60
145	Stonewall Flat	Central	NY, ES	100	14.02	85.98	8.60
147	Gold Flat	Central	NY	1,900	391.32	1,508.68	150.87
148	Cactus Flat	Central	NY	300	90.11	209.89	20.99
150	Little Fish Lake Valley	Central	NY	10,000	7,895.80	2,104.20	210.42
151	Antelope Valley (Eureka & Nye)	Central	EU, NY	4,000	3,065.18	934.82	93.48
155B	Little Smoky Valley-Central Part	Central	NY	100	5.07	94.93	9.49
155C	Little Smoky Valley-Southern Part	Central	NY	1,000	56.82	943.18	94.32

Table 1. Reserved Quantity of Water, by Basin, as Required by SB 140 (continued).

Basin No.	Basin Name	Hydrographic Region	Counties ^a	Perennial Yield (PY)	Total Committed + Pending (TC) ^b	Difference of PY and TC ^b	10 Percent Reservation
156	Hot Creek	Central	NY	5,500	2,605.22	2,894.78	289.48
157	Kawich Valley	Central	NY	2,200	22.74	2,177.26	217.73
158A	Emigrant Valley-Groom Lake Valley	Central	LI, NY	2,800	12.32	2,787.68	278.77
158B	Emigrant Valley-Papoose Lake Valley	Central	LI, NY	10	0.00	10.00	1.00
159	Yucca Flat	Central	NY	350	2.00	348.00	34.80
160	Frenchman Flat	Central	NY, LI, CL	100	0.00	100.00	10.00
174	Jakes Valley	Central	WP	12,000	30.85	11,969.15	1,196.92
175	Long Valley	Northwest	WA	6,000	4,300.13	1,699.87	169.99
176	Ruby Valley	Central	EL, WP	37,000	23,338.82	13,661.18	1,366.12
178A	Butte Valley-Northern Part	Central	EL	6,000	124.63	5,875.37	587.54
178B	Butte Valley-Southern Part	Central	WP, EL	14,000	364.46	13,635.54	1,363.55
185	Tippett Valley	Central	WP	3,500	479.96	3,020.04	302.00
189B	Thousand Springs Valley-Toano-Rock Spr Area	Great Salt Lake Basin	EL	2,600	1,587.00	1,013.00	101.30
189C	Thousand Springs Valley-Rocky Butte Area	Great Salt Lake Basin	EL	1,400	445.53	954.47	95.45
190	Grouse Creek Valley	Great Salt Lake Basin	EL	350	32.56	317.44	31.74
191	Pilot Creek Valley	Great Salt Lake Basin	EL	4,500	3,449.04	1,050.96	105.10
192	Great Salt Lake Desert	Great Salt Lake Basin	EL	5,000	11.59	4,988.41	498.84
193	Deep Creek Valley	Great Salt Lake Basin	WP, EL	2,000	2.00	1,998.00	199.80
194	Pleasant Valley	Great Salt Lake Basin	WP	1,500	976.29	523.71	52.37
197	Escalante Desert	Escalante Desert	LI	1,000	971.09	28.91	2.89
223	Gold Butte Area	Colorado River Basin	CL	500	1.12	498.88	49.89
224	Greasewood Basin	Colorado River Basin	CL	300	4.05	295.95	29.60
231	Grapevine Canyon	Death Valley Basin	ES, NY	400	12.43	387.57	38.76

a - where CL is Clark, CH is Churchill, EL is Elko, ES is Esmeralda, EU is Eureka, HU is Humboldt, LA is Lander, LI is Lincoln, LY is Lyon, MI is Mineral, NY is Nye, PE is Pershing, WA is Washoe, and WP is White Pine.

b - Accounting for all pending applications, as of March 1, 2019, as being committed pursuant to SB 140.