Summary Tables of Authorized (2023) and Actual (2018) Groundwater Use within the Proposed Harney Basin Critical Groundwater Area Subareas

Table 1. Summary of authorized GW use in 2023 within the proposed Harney Critical GW Area (CGWA)

GW Right Use Authorized in 2023								
Proposed CGWA Subareas	Irrigation (IR & IS)	Municipal & Quasi	Community	Commercial-Industrial	Subarea Total			
	(acre-ft/yr)	(acre-ft/yr)	(acre-ft/yr)	(acre-ft/yr)	(acre-ft/yr)			
Crane	20,654	0	0	0	20,654			
Crane - Buchanan	39,669	0	0	661	40,330			
Dog Mountain	14,793	0	0	0	14,793			
Harney Lake	3,731	0	0	0	3,731			
Lawen	9,008	0	0	0	9,008			
Lower Blitzen - Voltage	24,180	0	0	0	24,180			
Malheur Lake	60	0	0	0	60			
North Harney	8,196	0	0	0	8,196			
Poison Creek - Rattlesnake Creek	37,342	0	0	0	37,342			
Rock Creek	7,975	0	0	0	7,975			
Silvies	28,712	14,646	73	7,826	51,257			
Upper Blitzen	401	0	0	0	401			
Upper Silver Creek	31,488	0	0	0	31,488			
Weaver Springs	28,134	0	0	0	28,134			
Windy Point	12,383	0	0	0	12,383			
Total	s 266,726	14,646	73	8,487	289,931			

Table 1 Notes:

Irrigation (IR & IS): includes primary and supplemental irrigation. Values were derived by GIS to eliminate duplicate acres as follows: (1) Select POU that intersect CGWA; (2) Clip POU by CGWA boundary; (3) Intersect POU with CGWA subareas (distribute/ID each POU per CGWA subarea); (4) Dissolve POU based on subarea name (merge all POU within each CGWA subarea); (5) Add "POU area" field to dissolved attribute table; (6) Use geometry to calculate total area per CGWA subarea.

Municipal & Quasi: includes municipal and quasi-muncipal uses. Values were derived by summing the authorized maximum cfs for each GW right identified under this category and then calculating a total annual volme in acre-feet. The values likely include duplicates.

Community: includes use authorized by a GW right only. Community use allowed as an exempt use are excluded. Values were derived by summing the authorized maximum cfs for each GW right identified under this category and then calculating a total annual volme in acre-feet. The values likely include duplicates.

Commercial-Industrial: includes use authorized by a GW right only. Commercial-Industrial use allowed as an exempt use are excluded. Values were derived by summing the authorized maximum cfs for each GW right identified under this category and then calculating a total annual volme in acre-feet. The values likely include duplicates.

Table 2. Summary of estimated actual GW use in 2018 by authorized GW rights within the proposed Harney Critical GW Area (CGWA)

Estimated Actual GW Right Use in 2018								
Proposed CGWA Subareas	Irrigation (IR & IS) (acre-ft/yr)	Municipal & Quasi (acre-ft/yr)	Community (acre-ft/yr)	Commercial-Industrial (acre-ft/yr)	Subarea Total (acre-ft/yr)			
Crane	9,712	. 0	0	0	9,712			
Crane - Buchanan	17,717	0	0	724	18,441			
Dog Mountain	4,895	0	0	0	4,895			
Harney Lake	910	0	0	0	910			
Lawen	3,484	0	0	0	3,484			
Lower Blitzen - Voltage	13,648	0	0	0	13,648			
Malheur Lake	(0	0	0	0			
North Harney	5,317	0	0	0	5,317			
Poison Creek - Rattlesnake Creek	13,812	. 0	0	0	13,812			
Rock Creek	2,443	0	0	0	2,443			
Silvies	13,641	1,852	48	32	15,573			
Upper Blitzen	68	0	0	0	68			
Upper Silver Creek	20,382	. 0	0	0	20,382			
Weaver Springs	19,245	0	0	0	19,245			
Windy Point	9,118	0	0	0	9,118			
	Totals 134,394	1,852	48	756	137,050			

Table 2 Notes:

Irrigation (IR & IS): includes primary and supplemental irrigation. The 2018 values were summed from OFR 2023-01, appendix H (Schibel and Grondin, 2023) after identifying the pumpage related to this category and using GIS to assign the pumpage to the appropriate proposed Harney CGWA subarea. OFR 2023-01 explains the methods used to determine (estimate) pumpage per well per month from 1930 to 2018.

Municipal & Quasi: includes municipal and quasi-muncipal uses. The 2018 values were summed from OFR 2023-01, appendix H (Schibel and Grondin, 2023) after identifying the pumpage related to this category and using GIS to assign the pumpage to the appropriate proposed Harney CGWA subarea. OFR 2023-01 explains the methods used to determine (estimate) pumpage per well per month from 1930 to 2018. Cases where groundwater returns to the subsurface via septic systems or injection is accounted in the totals.

Community: includes use authorized by a GW right only. Community use allowed as an exempt use are excluded. The 2018 values were summed from OFR 2023-01, appendix H (Schibel and Grondin, 2023) after identifying the pumpage related to this category and using GIS to assign the pumpage to the appropriate proposed Harney CGWA subarea. OFR 2023-01 explains the methods used to determine (estimate) pumpage per well per month from 1930 to 2018. Cases where groundwater returns to the subsurface via septic systems or injection is accounted in the totals.

Commercial-Industrial: includes use authorized by a GW right only. Commercial-Industrial use allowed as an exempt use are excluded. The 2018 values were summed from OFR 2023-01, appendix H (Schibel and Grondin, 2023) after identifying the pumpage related to this category and using GIS to assign the pumpage to the appropriate proposed Harney CGWA subarea. OFR 2023-01 explains the methods used to determine (estimate) pumpage per well per month from 1930 to 2018. Cases where groundwater returns to the subsurface via septic systems or injection is accounted in the totals.