

DRAFT | For Discussion Purposes Only, Do Not Cite

Harney Basin Known Critical Groundwater Resource Issues Combined—8/12/21

Groundwater resource issues have been identified by the Harney Community-Based Water Planning (CBWP) team, which includes staff and Working Groups under Planning Steps 2 and 3 of the OWRD-granted place-based planning process. The issues are restricted to groundwater issues and are either documented conditions of a water resource problem, or a critical uncertainty of a water resource condition requiring further information to effectively evaluate. ***This is a comprehensive list of issues known to date (for discussion purposes at this time) and has been updated.***

In efforts to make the Issues List more understandable and digestible (and after several discussions with Coordinating Committee members), project staff have made significant updates since the July Full Collaborative meeting. Previously, there were multiple issues that expressed a similar concern; those similar issues have been combined into one issue for simplicity. Project staff also examined the list for those issues outside the scope of the Collaborative and/or the Groundwater Plan and scanned the list for observations vs. issues. The list attached here illustrates the range of issues upon which we are seeking consensus on for inclusion in the groundwater portion of the Integrated Water Plan. If you'd like to see the original Issues List (that includes the logic behind combining/striking certain issues) in your consensus preparation, click [here](#).

Groundwater Issue	Source of Information
Over-Allocation/Groundwater Level Declines	
There are declining groundwater levels in the Greater Harney Valley Groundwater Area of Concern (GHVGAC) due to Cumulative groundwater discharge, including both consumptive uses (predominantly irrigation) and natural discharge, exceeding recharge	Groundwater Study Preliminary Results; GHVGAC designation; OWRD ppt 2015

Ag users and DWU's are being affected by seasonal declines in the shallow aquifer, which also has unknown impacts on wildlife. Declines are predicted to worsen during extreme drought years and general variability in water supply	Local area discussions; consensus prep meeting
Ecosystem Health and Protection	
Limited legal protections for springs	GDE Report Step 2 and 3
There are concerns about the effects of declining groundwater levels on springs, wetlands, cold water inputs to streams, riparian areas, other groundwater dependent ecosystems, and lakes as well as the native flora and fauna associated with these groundwater dependent ecosystems.	GDE Report Step 2 and 3
More information is required regarding the impacts of declining groundwater levels on groundwater dependent ecosystems	GDE Report Step 2 and 3
Groundwater Governance and Accountability	
There is concern in the community about the lack of accountability regarding the use of groundwater for irrigation. Groundwater used by irrigators is not uniformly measured and reported to be in compliance with water rights.	Agriculture Water Use Step 3 Report; Exempt Use Report Step 2 and 3
Water right issues are not addressed in a public manner	DWU 6/24 Presentation
Use of groundwater in excess of or without water right	DWU 6/24 Presentation
Water Security for Groundwater Users	

The negative effects of declining groundwater levels on domestic and stockwater wells - including lack of water and declining water quality - is having a dramatic impact on the quality of life and economic status of rural inhabitants of the Harney Basin.	Exempt Use Report Step 2 and 3
Limited information about water use from domestic and stock water wells and historic well conditions (prior to the reporting period).	Exempt Use Report Step 2 and 3
Infrastructure Improvements + Necessary Upgrades	
Past well construction and documented illegal construction of wells in recent years have caused co-mingling of shallow groundwater aquifers important for domestic and livestock wells and deeper aquifers primarily used for irrigation causing a greater impact for domestic and livestock wells.	Collaborative conversations
Agricultural and Community Economic Sustainability	
Incomplete information on potential economic impacts of lowering groundwater levels in agricultural and domestic wells.	Collaborative Conversation/ Agricultural Water Use Step 3 + other
Incomplete information on potential economic impacts of voluntary curtailment and CREP payments	CREP conversation
Incomplete information on potential economic impacts of curtailment from the State	Collaborative convos + conversations from producers + ag organizations + others
Incomplete information on potential economic impacts from ecological impacts of groundwater declines.	Collaborative conversations
Incomplete information on the impacts from continued development in the GHVGAC	Consensus prep meeting
Data and Information Gaps	
Lack of information about occurrence, distribution, and potential impacts of unpermitted wells.	Collaborative Conversation, Needs confirmation with OWRD well inspector

There is a need for better Understanding of when producers are drawing from their secondary (supplemental) GW right, how frequently they're turning to secondary rights and how that is changing over time, especially with less streamflow and how that will affect recharge, etc.	Local Area Discussions
Inadequate groundwater data overall in the Harney Basin	Collaborative conversation'
Climate Change & Cycles Effects on Groundwater	
Future climate conditions in the Harney Basin are likely to be warmer and drier than current ones.	All Step 3 reports
Incomplete information of climate change on water resources in the Harney Basin.	Groundwater budget presentation
Lack of drought contingency plan	Collaborative conversations