

OVERALLOCATION/ GROUNDWATER LEVEL DECLINES (3)

1. There are declining groundwater levels in the Greater Harney Valley Groundwater Area of Concern (GHVGAC) due to cumulative groundwater discharge, including both human uses (predominantly irrigation) and natural discharge, exceeding recharge.
 - *Groundwater Study Preliminary Results; GHVGAC designation; OWRD 2015 presentation*
2. Many groundwater users are being affected by seasonal and long-term declines in available water, which has unknown impacts on groundwater dependent ecosystems.
 - *Sub-area discussions; consensus prep meeting*
3. Groundwater declines are not uniform across the basin or between shallow and deep groundwater, which can lead to management challenges.
 - *Groundwater Study Preliminary Results; Sub-area discussions*

ECOSYSTEM HEALTH AND PROTECTION (2)

1. There are limited legal protections for springs.
 - *GDE Step 2 and 3 Report*
2. Declining groundwater levels may alter habitat quality and availability in springs and other groundwater dependent ecosystems (wetlands, streams, and lakes). Plants and animals associated with those habitats could be negatively affected by groundwater level declines. Hydrologic alterations impact GDEs.
 - *GDE Step 2 and 3 Report*
 - *Note: We edited this issue at the September Full Collaborative meeting. Is this language okay with Zach, Lisa, and Teresa, and other in-stream, environmental, conservation interests?*

GROUNDWATER GOVERNANCE AND ACCOUNTABILITY (6)

1. There is lack of accountability regarding the use of groundwater for irrigation. Groundwater used by irrigators is reported by only some of the permit holders but is not uniformly measured and reported.
 - *Agriculture Water Use Step 3 Report; Exempt Use Step 2 and 3 Report*
2. There are limited public participation opportunities and barriers to participation in the water permitting and permit transfer process. in the water permitting and permit transfer process, **which can lead to decisions that do not fully consider potential impacts to the local environment, community, and economy and potentially produce unfair outcomes.**
 - *Domestic Well User (DWU) 6/24/21 presentation*
 - *Note: Why is this an issue? Be more specific here...Harmony suggested the following addition: "...which can lead to decisions that do not fully consider*

potential impacts to the local environment, community, and economy and potentially produce unfair outcomes.”

3. Failure to remove permits for abandonment or non-use dissolves any accountability for measurement of water availability.
 - *Collaborative member addition 10/2021*
4. Failure to remove permits for abandonment or non-use allows those permits to continue to be transferred without affecting those acre feet from stats of water availability.
 - *Collaborative member addition 10/2021*
5. Failure to remove permits for abandonment or non-use allows those permits to reactivate and create further draws on already depleted reservoirs.
 - *Collaborative member addition 10/2021*

WATER SECURITY FOR GROUNDWATER USERS (3)

1. The current and potential negative effects of declining groundwater levels on domestic and stock water wells - including lack of water and declining water quality - is having a negative impact on the quality of life and economic security of rural inhabitants of the Harney Basin.
 - *Exempt Use Step 2 and 3 Report*
2. There is limited legal protection for exempt groundwater uses.
 - *DWU Working Group*
3. The impact of declining groundwater levels on the water supply for the cities of Burns and Hines is unknown ~~and of concern~~.
 - *DWU Working Group*

DATA AND INFORMATION GAPS (13)

1. There is limited or no baseline information about the condition and location of groundwater-dependent ecosystems, and limited or no monitoring to determine the impacts of groundwater declines now and in the future.
 - *GDE Step 2 and 3 Report*
2. The total amount of groundwater pumped in the basin is unknown, which can lead to issues with accurate allocation regimes
 - *Collaborative conversation*
3. There is limited information about water use from domestic and stock water wells and historic well conditions.
 - *Exempt Use Step 2 and 3 Report*
4. Incomplete information on potential economic impacts of lowering groundwater levels in agricultural and domestic wells.
 - *Collaborative conversations; Agricultural Water Use Step 3 Report*

5. Incomplete information on potential economic impacts of voluntary curtailment and CREP payments
 - *CREP conversations*
6. Incomplete information on potential economic impacts of curtailment from the State
 - *Collaborative conversations; conversations from producers + ag organizations + others*
7. Incomplete information on potential economic impacts from ecological impacts of groundwater declines.
 - *Collaborative conversations*
8. Incomplete information on the impacts from continued development in the GHVGAC
 - *Consensus prep meeting*
9. Lack of information about occurrence, distribution, and potential impacts of both unpermitted and poorly constructed wells and impacts on groundwater quality/quantity.
 - *Collaborative conversations; OWRD well inspector comments*
10. There is a need for better understanding of the effects and amount of supplemental groundwater used.
 - *Sub-area discussions*
11. Additional site-specific groundwater data, such as designation of certain areas for targeted CREP outreach, groundwater markets, etc., might be useful for effective groundwater management.
 - *Collaborative conversations*
 - *Note: Can we be more specific on the types of site-specific data that would be useful?*
12. Incomplete information on the effects of climate change on groundwater resources in the Harney Basin.
 - *USGS Groundwater Budget Presentation*
13. There is only baseline information on groundwater quality. Changes and health risks, as well as treatment options, need to be better understood. Monitoring groundwater quality is not widespread throughout the basin.
 - *DEQ Groundwater Quality Study*
 - *Note: Is this a sufficient issue for the water quality requirement of PBP? What if we break this issue into multiple statements? See below:*
 - *13. Limited groundwater quality monitoring in the basin makes it difficult to understand baseline conditions and changes overtime, especially as it relates to groundwater quality issues that may affect human or animal health.*
 - *14. Arsenic is a documented water quality issue in the basin. Arsenic exceeds human health standards in some wells across the basin that provide drinking water*
 - *15. There is uncertainty about whether co-mingling between shallow and deep groundwater systems is occurring due to well construction issues in some parts of the basin*
 - *16. There is an unknown number of undocumented wells in the basin that may not have been properly constructed and have not been inspected or maintained over time. For instance, there are many uncapped wells in the basin that could negatively impact groundwater quality.*

CLIMATE CHANGE AND CYCLE + EFFECTS ON GROUNDWATER (2)

1. Future climate conditions in the Harney Basin are likely to be warmer and drier than current ones, which will likely impact groundwater resources.
 - *All CBWP Groundwater Step 3 Reports*
2. Lack of drought contingency plan.
 - *Collaborative conversations*

TOTAL ISSUES: 29