Key Takeaways Surface-Groundwater Interactions

Spring flooding and flood irrigation account for nearly 70% of the Harney Valley groundwater recharge. It is unknown if there are areas that are more efficient at recharge than others in the Harney Valley that would allow management of recharge.

Vegetation management through conifer forest thinning and western juniper clearing in the uplands may have an effect on catchment yield but it is unknown the magnitude and significance of the effect on surface-groundwater contributions.

A professional evaluation of the current state of the surface water infrastructure system in Harney county along with a recommendation of improvements with the goal of increasing groundwater recharge.

Changing snowpack conditions will affect runoff amount, timing and duration of flow and flooding. Developing improved monitoring to better predict spring conditions (flow amount, timing, duration, etc.) will enable more effective management of surface water.

Evaluating the effects of stream alteration through channelization, diversion, and removal of beaver can provide information useful for prioritizing and evaluating restoration potentials.

Increased information on headwater conditions and hillslope water storage would improve understanding of upland surface-groundwater interactions. This will be particularly important for the Steens Mountain area since some 60% of groundwater recharge comes from the Blitzen catchment.

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