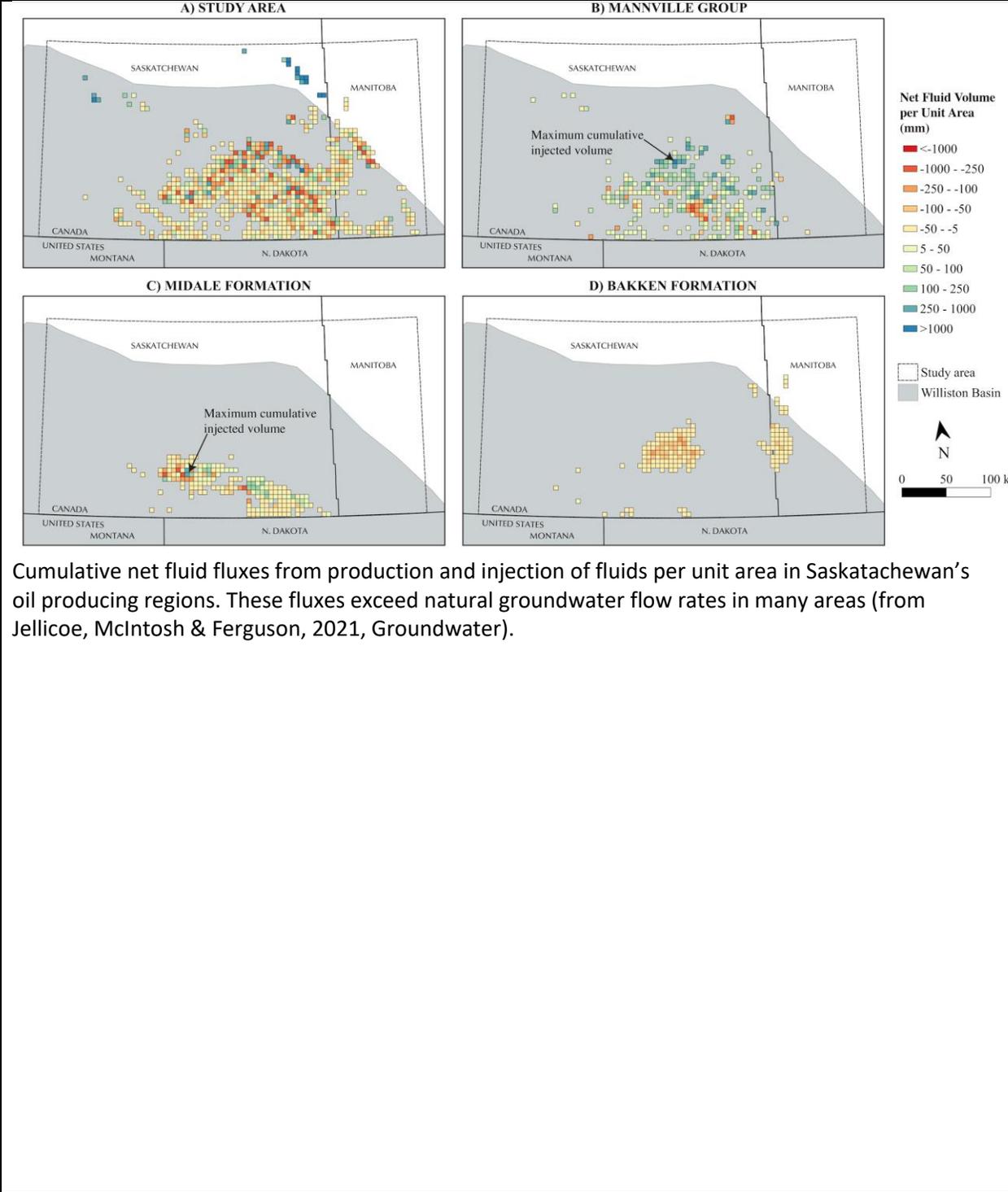


Old Meets New 2021 Operations Team Meeting – Project Reporting Template

Instructions: All GWF projects are asked to provide a summary update on their activities and accomplishments in preparation for the upcoming Operations Team meeting. **Please submit these by email to chris.debeer@usask.ca by no later than December 2.** These will be used to help guide discussions and breakout synthesis activities and will be made generally accessible on our website in advance of the meeting.

Project Name:	Old Meets New: Subsurface Connectivity and Groundwater Protection
Our major accomplishments to date are:	
<ul style="list-style-type: none"> • Compiled a databased of groundwater chemistry for deep, saline aquifers in western Canada • Determined volumes of produced and injected fluids from deep subsurface reservoirs in Saskatchewan and modeled their effect on fluids pressures (Jellicoe et al., 2021, Groundwater) • Assessment of the likely status of older abandoned oil and gas wells in selected areas of Alberta and Canada (Perra et al, 2021, Groundwater) • Developed a new method for assessing the stagnation of fluids in deep aquifers (Ferguson, McIntosh et al., 2018, Geophysical Research Letters) • Assessed the circulation depth of groundwater with a meteoric origin at the continental scale in North America (McIntosh and Ferguson, 2021, Geophysical Research Letters) • Revised estimates of total continental groundwater volumes (Ferguson, McIntosh et al, 2021, Geophysical Research Letters) 	
Our current activities are:	
<ul style="list-style-type: none"> • Assessing groundwater and contaminant transport between deep, saline aquifers and shallow aquifers containing potable water supplies • Planning for geochemical sampling in spring 2021 (in combination with GWF project Groundwater, Climate Change and Water Security in the Canadian Prairies) 	
The main accomplishments expected by the end of the project are:	
<ul style="list-style-type: none"> • Improved understanding connections between deep and shallow groundwater systems in western Canada • Improved understanding of the functioning of deep (i.e. > 500 m) groundwater systems 	
Here is a key visual from the project (figure, photo, table, graph, etc.)	



Cumulative net fluid fluxes from production and injection of fluids per unit area in Saskatchewan’s oil producing regions. These fluxes exceed natural groundwater flow rates in many areas (from Jellicoe, McIntosh & Ferguson, 2021, Groundwater).