



PRAIRIE WATER

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Enhancing resilience of prairie communities through sustainable water and watershed management

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Rationale

- The Canadian Prairie is an intensively managed landscape, leading to competing demand for water (e.g., economic production, environment, society).
- A need from stakeholders and rightsholders to better understand water resources in context of a changing climate and land management.
- Strategic management requires approaches informed by natural and social sciences and guided by needs of water managers and users.

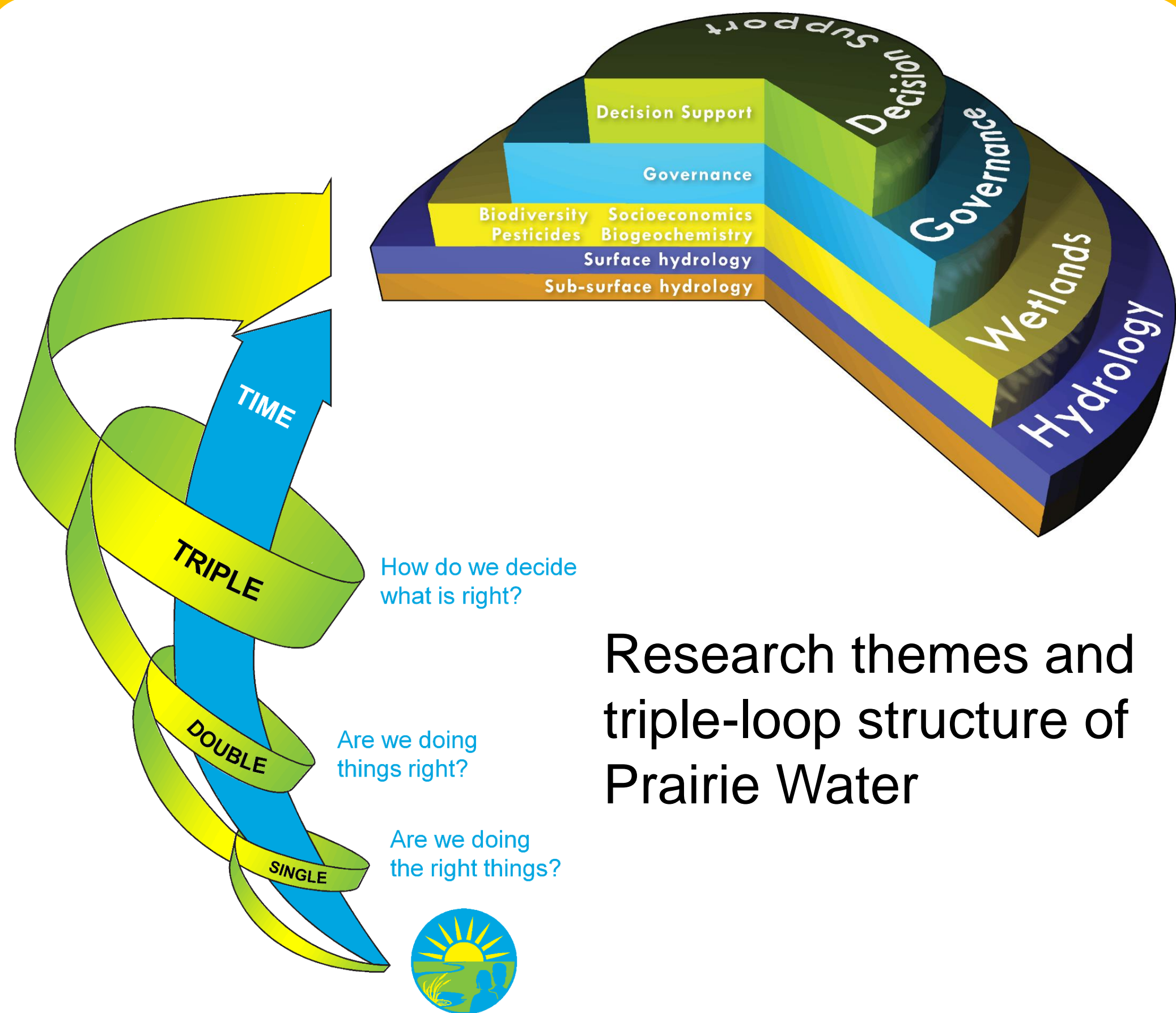
Prairie Water Objectives

- Improve understanding and prediction of water processes, linkages, and regimes
- Connect wetland functions to ecological goods and services, from chemistry to policy
- Determine roles different segments of society play in policy processes
- Co-develop knowledge & tools with partners to inform decisions and mobilize science

Global Water Futures Objectives

- Improving disaster warning
- Predicting water futures
- Adapting and managing risk

Linkages with...



Contributions to the UN Sustainable Development Goals



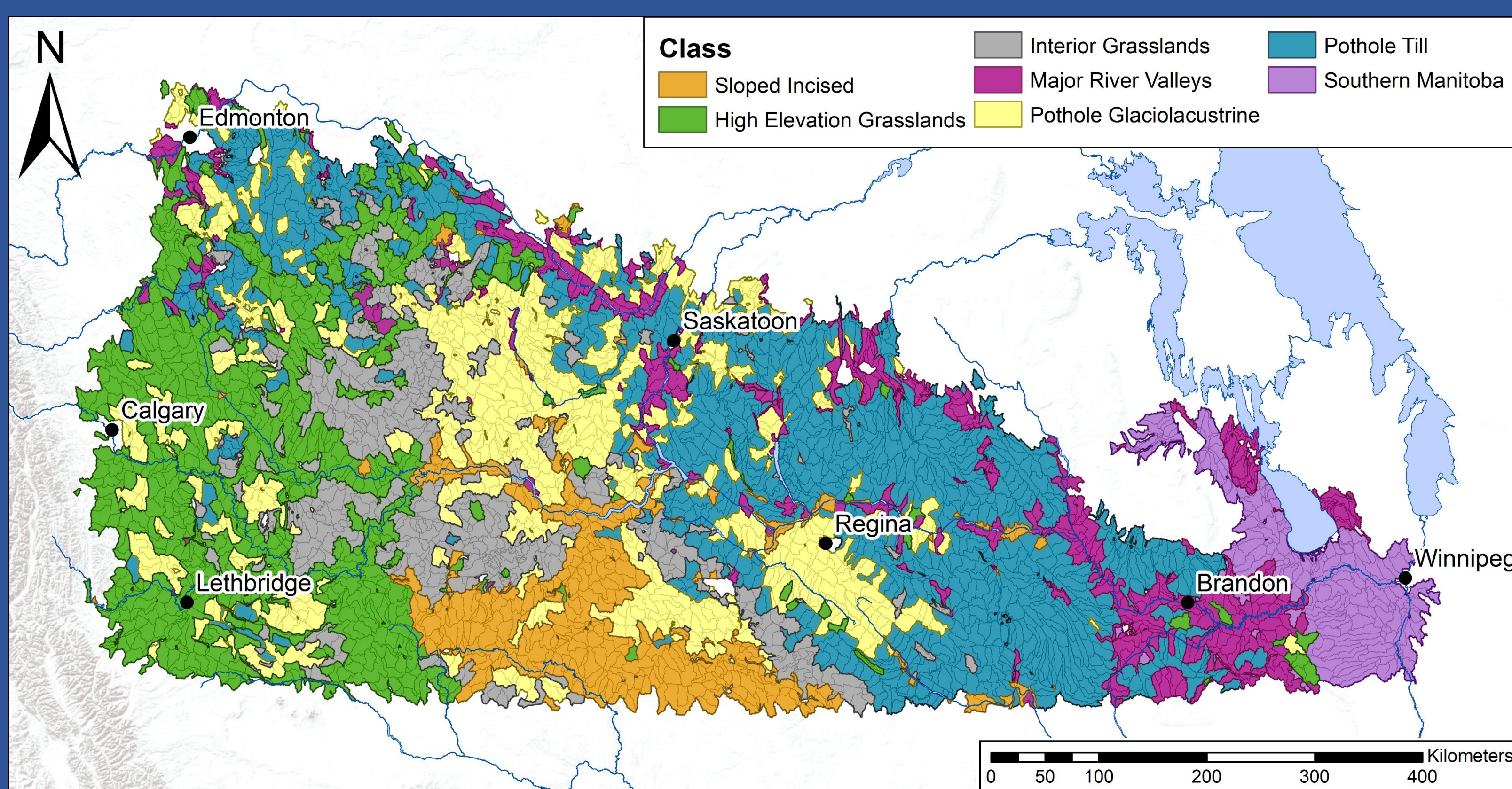
- 2.4 Ensure sustainable food production and resilient agricultural practices
- 6.3 Reduce impacts on water quality
- 6.5 Facilitate transboundary cooperation on water
- 6.6 Promote informed management and protection of aquatic systems
- 11.5 Reduce the number of people affected by disasters
- 12.2 Sustainable management and efficient use of natural resources
- 13.1 Strengthen resilience and adaptive capacity to climate-related hazards
- 15.1 Sustainable use of inland freshwater systems and services
- 15.9 Integrate ecosystem and biodiversity values into local planning
- 16.7 Ensure representative decision-making at all levels

Trend

- Green arrow: Maintaining SDG achievement
- Yellow arrow: On track to achieve goal by 2030
- Orange arrow: Score moderately increasing, insufficient to attain goal
- Red arrow: Score stagnating or increasing at less than 50% of required rate
- Grey arrow: Score decreasing
- Grey dot: Trend information unavailable

Rating and trend information for Canada from: Sachs, J., Schmidt-Traub, G., Kroll, C., Laforune, G., Fuller, G. (2018): SDG Index and Dashboards Report 2018. New York: Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN)

Flow of virtual basin modelling

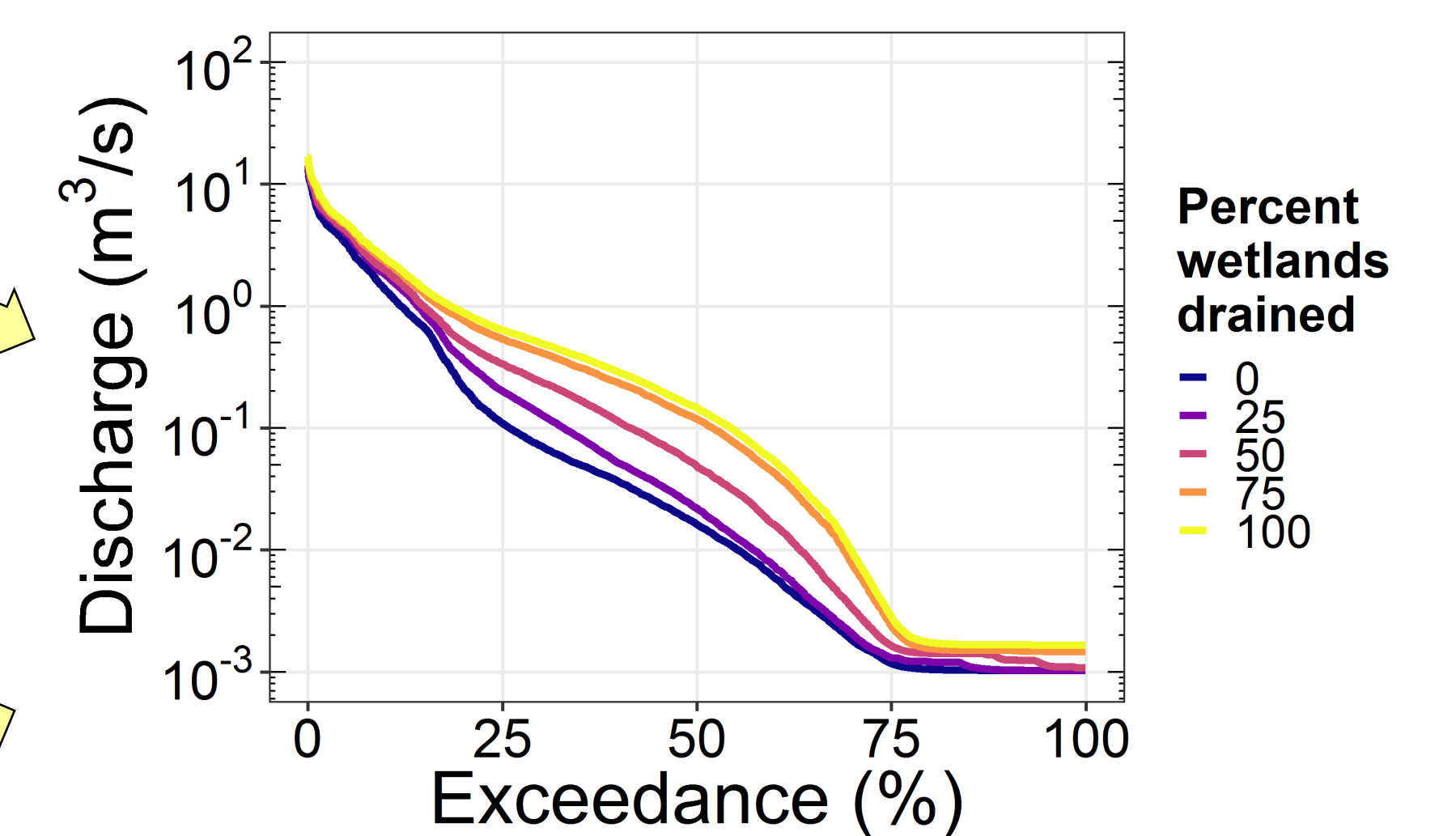
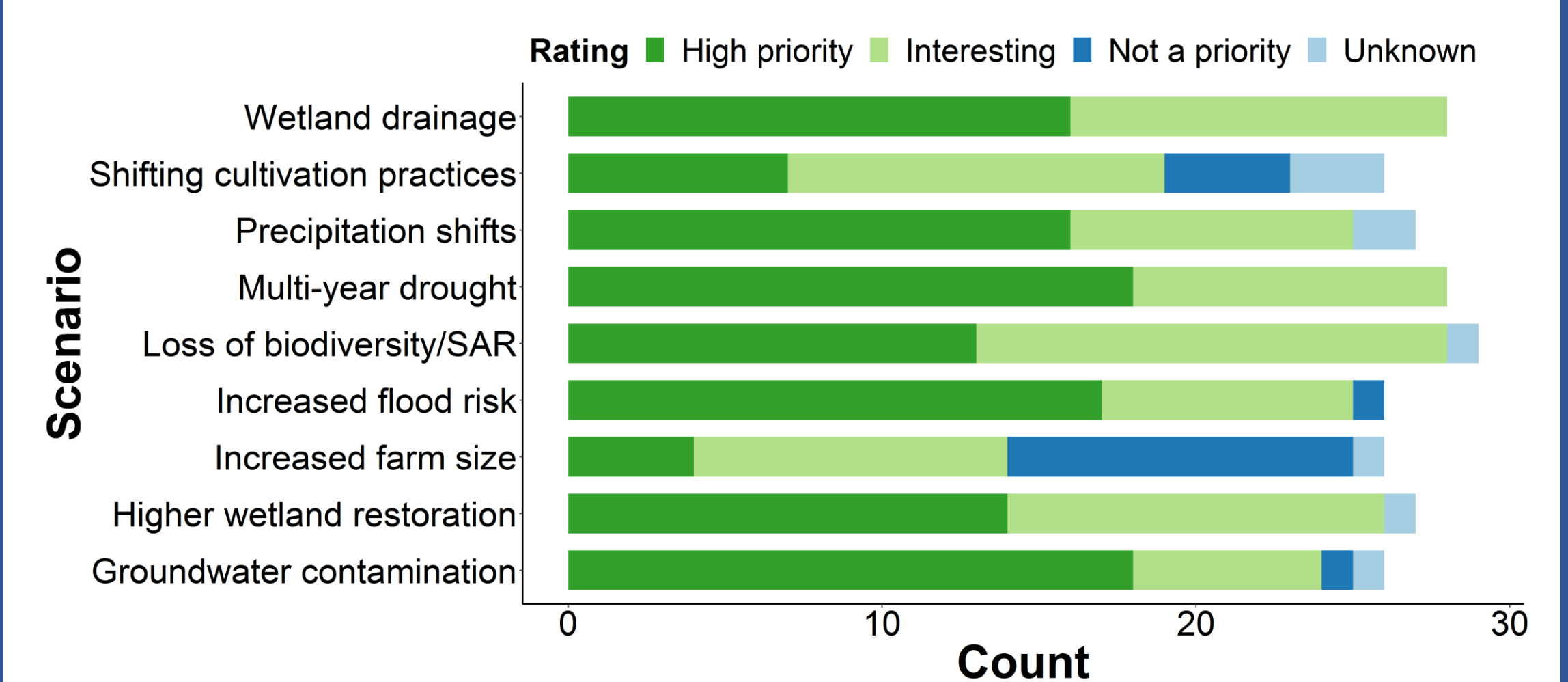


Watershed classification for the Canadian Prairie (Wolfe et al. under review)

Virtual Basin Models

- 1
- 2
- 3
- 4
- 5
- 6
- 7

Partner perspectives on priority scenarios



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COMMENTARY

Prairie water: a global water futures project to enhance the resilience of prairie communities through sustainable water management

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Prairie Water commentary provides an overview of water security on the Prairies and the motivation behind the project.

Link outputs to other Prairie Water findings



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