

To maximize biodiversity in the Prairies,

Will you make a conservation plan with cattle ranchers or reintroduce bison?

Canada's temperate grasslands are found in the Prairies in the uppermost range of the Great Plains. Our grasslands are rich in biodiversity and play important roles in water regulation and protection against soil erosion. They are also powerful carbon sinks, helping to store an estimated two to three billion tons of carbon.

Hundreds of years ago, bison grazed on the land and helped our grasslands thrive. They were important in ensuring grasses were healthy and productive and that many different species could grow. Bison became locally extinct in 1888, and today, cattle play a similar role as bison. Not only do cattle graze on the land, they also protect grasslands from being converted to cropland.



Above: The range of Canada's Temperate Grassland Ecosystems

Canada's grasslands are one of our most important ecosystems, but they are also one of the most threatened. They're being converted to cropland or they're removed to make space for urban or industrial development. Over 75% of our native grasslands have already been destroyed.

For this case study, you are responsible for conserving 50,000 hectares of protected native grasslands. To maximize biodiversity, will you (a) work with ranchers to develop a conservation plan and manage the land with cattle or (b) reintroduce bison?



Research Questions

In order to build your case, you need to make sure you fully understand the problem and possible solutions. The research questions below will guide you.

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- Why are grasslands known as biodiversity hotspots?
- 2 Why are grazers like bison and cattle important for conserving biodiversity in Canada's grasslands?
- 3 Have bison been successfully reintroduced to grasslands in Prairie Canada or elsewhere?
- What are the challenges to reintroducing bison?
- 5 What conservation strategies could be used by a rancher to help improve biodiversity on the land?
- What are the economic benefits of keeping cattle on the land?
- Consider some of the people that might be impacted by your decision (e.g. local ranchers, First Nations communities, etc.). How might each of these groups feel about working to keep cattle on the land vs reintroducing bison?

Build your case

After you've answered the research questions, you're ready to build your case. Choose one of the two options below that you believe would maximize biodiversity over the long term in our grassland ecosystem.

Option A: Make a Conservation Plan with Ranchers

Option B: Reintroduce Bison





The final step is to develop your case and present it on Competition Day. **Presentations should be no longer than 7 minutes** and can be delivered by one or more of your team members. Find out how judges will be evaluating each presentation by checking out the Case Study Competition Rubric.

Competition Day will happen virtually on March 7 at 5pm CST / 6pm EST / 7pm AST. For more information, check out the Wetland Centres of Excellence Case Study Competition webpage.

