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Fescue Grassland Restoration Program

Prince Albert National Park



Dustin Guedo – Ecologist Team Leader
Prince Albert National Park
Parks Canada



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Prince Albert National Park

Background

- Plains Rough Fescue grasslands were once common across the northern prairies
- <6% of the historical area remains
- Prince Albert National Park (PANP) is found on the northern fringe of the aspen parkland where intact plains rough fescue grasslands still exist
- These fescue grasslands are a significant ecological characteristic of the park





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- Remaining park grasslands have become extremely fragmented and small in size
- Several have been excavated for gravel deposits
- Encroachment by forest and establishment of invasives are the main threats
- These grasslands require active management to ensure their survival





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Conservation Restoration (CoRe)

- Applied for national restoration funding internal to Parks Canada
- Set 4 year conservation goals and targets:
 - Maintain and restore representative plains rough fescue grasslands in PANP
- Identified three main restoration efforts:
 - Prescribed fire
 - Restore disturbed borrow pits
 - Invasive species control



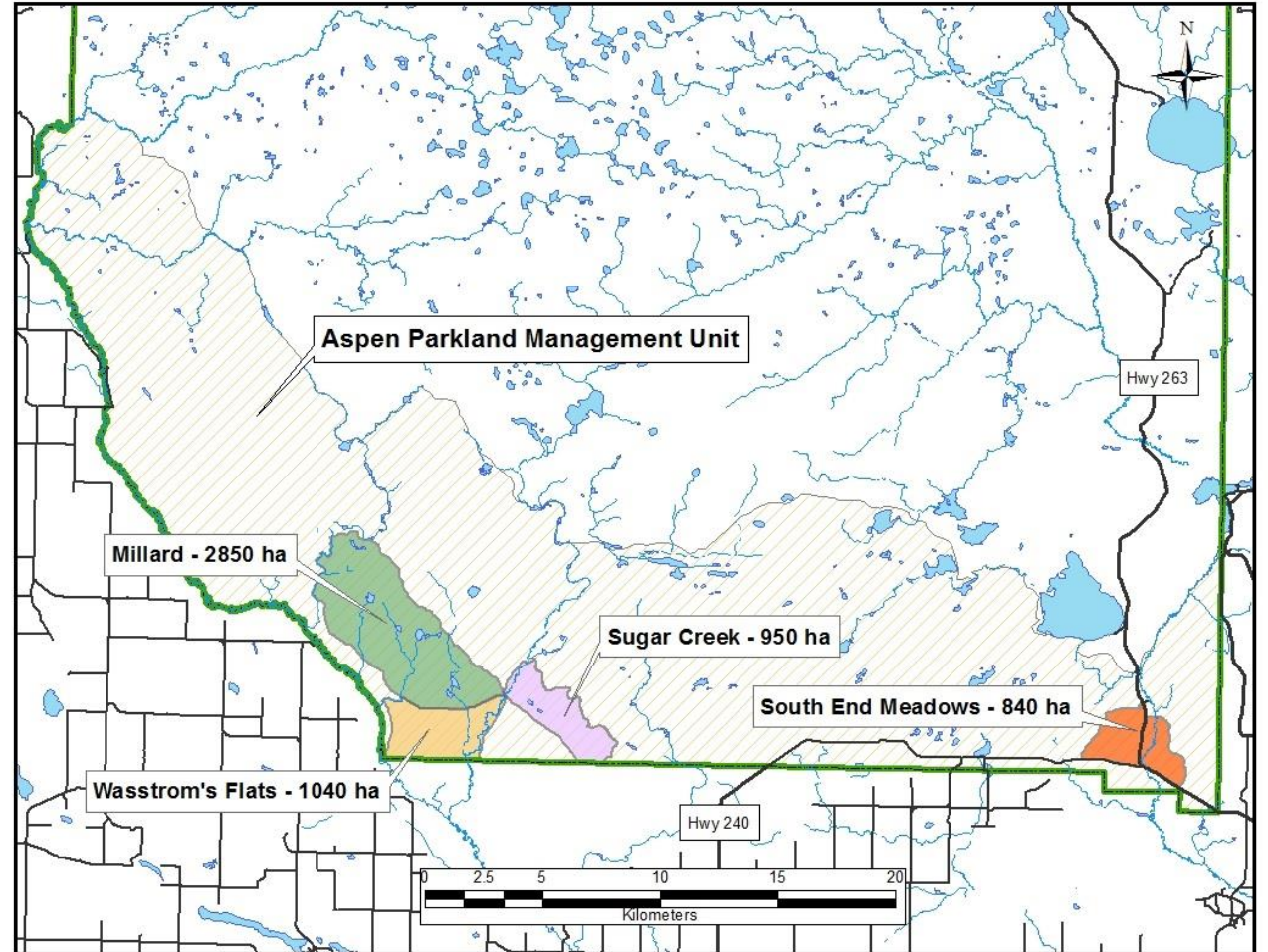


Planning Stage

Aspen Parkland
Management Unit
(53,500 ha)

40 Year Fire Cycle

Identified large
intact grasslands
with historical data
and photos





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Prescribed Fire

- Prescribed Fire Plan
- Goals:
 - Increase identified grasslands 50 ha by 2016
 - Restore fire disturbance regime by burning >3600 ha by 2017
 - Prescribed fires every 2-3 years for up to 10 years
 - Large scale forest disturbance





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Disturbed Site Restoration

- Restoration Plans for borrow pits
- Goals:
 - Contour area to match local topography (<25% slope)
 - Cover site with >10 cm of topsoil
 - Restore sites to >90% native vegetation cover within 3 years
 - Control invasive species within and surrounding the restoration site (<25% invasive cover)





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Invasive Species Control

- PANP Invasive Species Control Plan
- Goal:
 - Control and eradicate noxious and identified invasive plants within the park
- Objectives:
 - Minimize the risk of invasive species establishing by focusing on prevention
 - Maintaining current priority invasive list for park





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Challenges Faced with Restoration

- Funding and project costs
 - Short term funding for long term ecological restoration projects
 - Complexity of restoration projects increase costs – i.e. use of helicopters on fires
 - Contracting process – timelines and bid process federally
- Logistics and scheduling of restoration projects in remote locations
 - Added planning to estimate time for transportation and extended stay
- Weather conditions
 - Prescribed fires need certain weather range to meet prescription in order to be implemented safely or at all
 - Trail/site conditions might not be usable when scheduled to work on them



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Challenges Faced with Restoration

- Invasive plants
 - Constant ongoing maintenance
 - Control measures may be needed months/years in advance before restoration project fully begins depending on scope
 - Restoration projects may increase landscape disturbance – increase available disturbed ground for invasives to establish
 - Cleaning/decontaminating equipment and vehicles before travel to limit spread of invasive seeds and propagules
 - Staff need to be trained to properly identify invasives
- Project expectations
 - Short term deliverables on long term ecological projects may not always be possible



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Successful Restoration Results

- Through repeated prescribed fires there has been a significant increase in grassland extent and an overall trend towards an ecologically “Healthy” designation
- Borrow pits have been successfully restored into representative fescue grasslands
- Identified invasive projects have been completed with goals and objectives being met

Grassland	1947 (ha)	1995 (ha)	2015 (ha)	Decrease	Trend
South End Meadow	49.2	62.7	10.0	79.7	↓
Sugar Creek	55.2	8.4	51.5	6.7	↑
Wasstroms Flats	65.4	17.5	25.3	61.3	↑
12 Mile Meadow	8.6	3.9	3.0	65.1	↓
Jonassons Flats	74.2	27.8	15.6	79.0	↓



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Questions?

Dustin Guedo
Ecologist Team Leader
Prince Albert National Park
Parks Canada
(306) 663-4544
dustin.guedo@pc.gc.ca