

Biophysical Environment

Valued components assessed

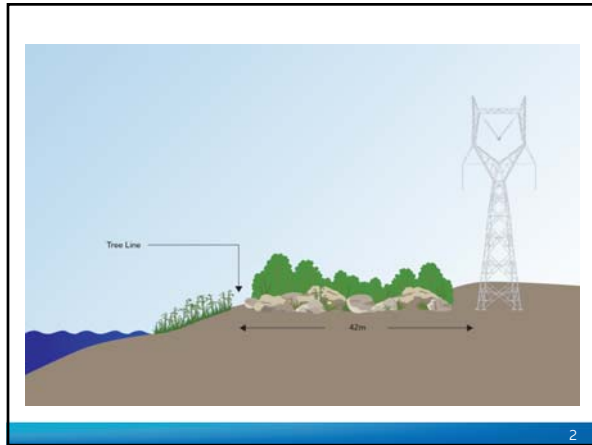
Fish and Fish Habitat

Vegetation and Wetlands

Wildlife and Wildlife Habitat

Traditional Land and Resource Use

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OverviewWhat We HeardWhat We AssessedKey Issue ReviewMitigation, Monitoring and Follow-upFindings and Conclusions

Regulatory guidance

- *Fisheries Act*
- *Species at Risk Act*
- National Energy Board Electricity Filing Manual


Le Salle River

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Overview What We Heard What We Assessed Key Issue Review Mitigation, Monitoring and Follow-up Findings and Conclusions

Key issue

- Change in fish habitat (riparian vegetation)



Assiniboine River

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Overview What We Heard What We Assessed Key Issue Review Mitigation, Monitoring and Follow-up Findings and Conclusions

Fish and fish habitat

- Riparian vegetation
- Herbicide use



Red River

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Overview What We Heard What We Assessed Key Issue Review Mitigation, Monitoring and Follow-up Findings and Conclusions


Scope of the assessment

Spatial

- RAA
- LAA
- PDA

Temporal

- Construction
- Operation
- Fish Species



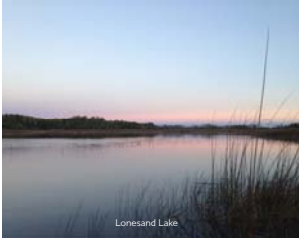
Assiniboine River

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Overview | What We Heard | What We Assessed | Key Issue Review | Mitigation, Monitoring and Follow-up | Findings and Conclusions

Scope of the assessment

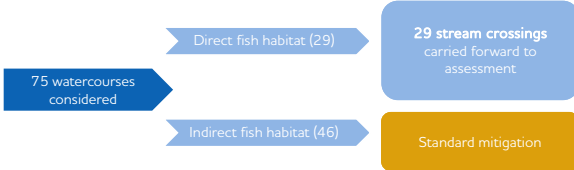
- 75 watercourses
- 7 sub-watersheds
- 75 fish species
 - 9 Species of Conservation Concern



Lonesand Lake

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Assessment approach




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graph LR; A[75 watercourses considered] --> B[Direct fish habitat (29)]; A --> C[Indirect fish habitat (46)]; B --> D[29 stream crossings carried forward to assessment]; C --> E[Standard mitigation];
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Overview | What We Heard | What We Assessed | Key Issue Review | Mitigation, Monitoring and Follow-up | Findings and Conclusions

Existing conditions

- Desktop review
 - Status/distribution/habitat availability
- Field surveys
 - Riparian vegetation/water quality
- FNMEP/PEP



Assiniboine River

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Overview What We Heard What We Assessed Key Issue Review Mitigation, Monitoring and Follow-up Findings and Conclusions

Riparian land cover

- 1) Agriculture
- 2) Developed
- 3) Wetlands
- 4) Grassland/ shrubland
- 5) Forest



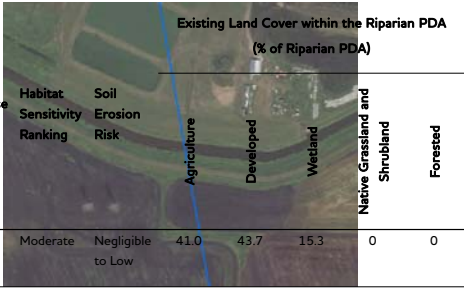
Pine Creek Arm

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Overview What We Heard What We Assessed Key Issue Review Mitigation, Monitoring and Follow-up Findings and Conclusions

Riparian land cover

Sturgeon Creek



Site	Watercourse Name	Habitat Sensitivity Ranking	Soil Erosion Risk	Agriculture	Developed	Wetland	Native Grassland and Shrubland	Forested
1	Sturgeon Creek	Moderate	Negligible to Low	41.0	43.7	15.3	0	0

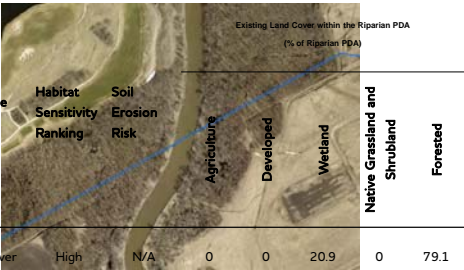
Existing Land Cover within the Riparian PDA (% of Riparian PDA)

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Overview What We Heard What We Assessed Key Issue Review Mitigation, Monitoring and Follow-up Findings and Conclusions

Riparian land cover

La Salle River



Site	Watercourse Name	Habitat Sensitivity Ranking	Soil Erosion Risk	Agriculture	Developed	Wetland	Native Grassland and Shrubland	Forested
5	La Salle River	High	N/A	0	0	20.9	0	79.1

Existing Land Cover within the Riparian PDA (% of Riparian PDA)

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Overview What We Heard **What We Assessed** Key Issue Review Mitigation, Monitoring and Follow-up Findings and Conclusions

Riparian land cover

- 15 agriculture/ developed
- 14 quality riparian areas




Pine Creek

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Overview What We Heard What We Assessed Key Issue Review **Mitigation, Monitoring and Follow-up** Findings and Conclusions

Environmental assessment

- Change in fish habitat
- Change in fish mortality



Cooks Creek

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Overview What We Heard What We Assessed Key Issue Review **Mitigation, Monitoring and Follow-up** Findings and Conclusions

Environmental assessment

<p>Land-based activities</p> <ul style="list-style-type: none"> • Excavation • Grading • Riparian planting • Use of explosives • Use of industrial equipment ← • Vegetation clearing ← 	<p>In-water activities</p> <ul style="list-style-type: none"> • Addition or removal of aquatic vegetation • Change in duration, frequency of flow • Dredging • Placement of material or structures in water • Structure removal • Use of explosives • Use of industrial equipment
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Environmental assessment

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graph LR; A[Right-of-Way clearing] --> B[Vegetation Clearing]; B --> C[Change in Fish Habitat]; B --> D[Change in Water Quality];
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Environmental assessment

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graph LR; A[Right of Way Clearing] --> B[Riparian Buffer]; A --> C[Pesticide Use Permit]; A --> D[Erosion Control]; A --> E[Emergency Response Plans]; B --> F[Residual Change in Fish Habitat]; C --> F; D --> F; E --> F;
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Overview | What We Heard | What We Assessed | Key Issue Review | **Mitigation, Monitoring and Follow-up** | Findings and Conclusions

Cumulative effects assessment

- Project effects assessed as neutral

Rat River

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Overview What We Heard What We Assessed Key Issue Review **Mitigation, Monitoring and Follow-up** Findings and Conclusions

Monitoring & follow-up

- Environmental inspections




Pine Creek Diversion

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Overview What We Heard What We Assessed Key Issue Review **Mitigation, Monitoring and Follow-up** Findings and Conclusions

Key findings

- 75 water crossings
- 46 (61%) indirect fish habitat
- 29 (39%) direct fish habitat



Seine River

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Overview What We Heard What We Assessed Key Issue Review **Mitigation, Monitoring and Follow-up** Findings and Conclusions

Key findings

- 15 agriculture/developed
- 14 riparian habitat



Unnamed Tributary

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Overview What We Heard What We Assessed Key Issue Review **Mitigation, Monitoring and Follow-up** Findings and Conclusions

Conclusions

“The Project will alter fish habitat primarily through the **selective removal of riparian vegetation**”

Residual effects on fish and fish habitat are predicted to be **not significant**

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