

Building Roads Through Wetlands: How the Wetland Policy Applies

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Outline

- Why care?
- Wetland policy for roads
- What is a wetland?
- Challenges and risks
- Mitigation

Why care?



Public safety impacts

- Flooding
- Washout
- Road settlement
- Perched or sunken culverts



Project impacts

- Permitting problems
 - Land ownership
- Project delays
- Increased fees



Alberta Wetland Policy



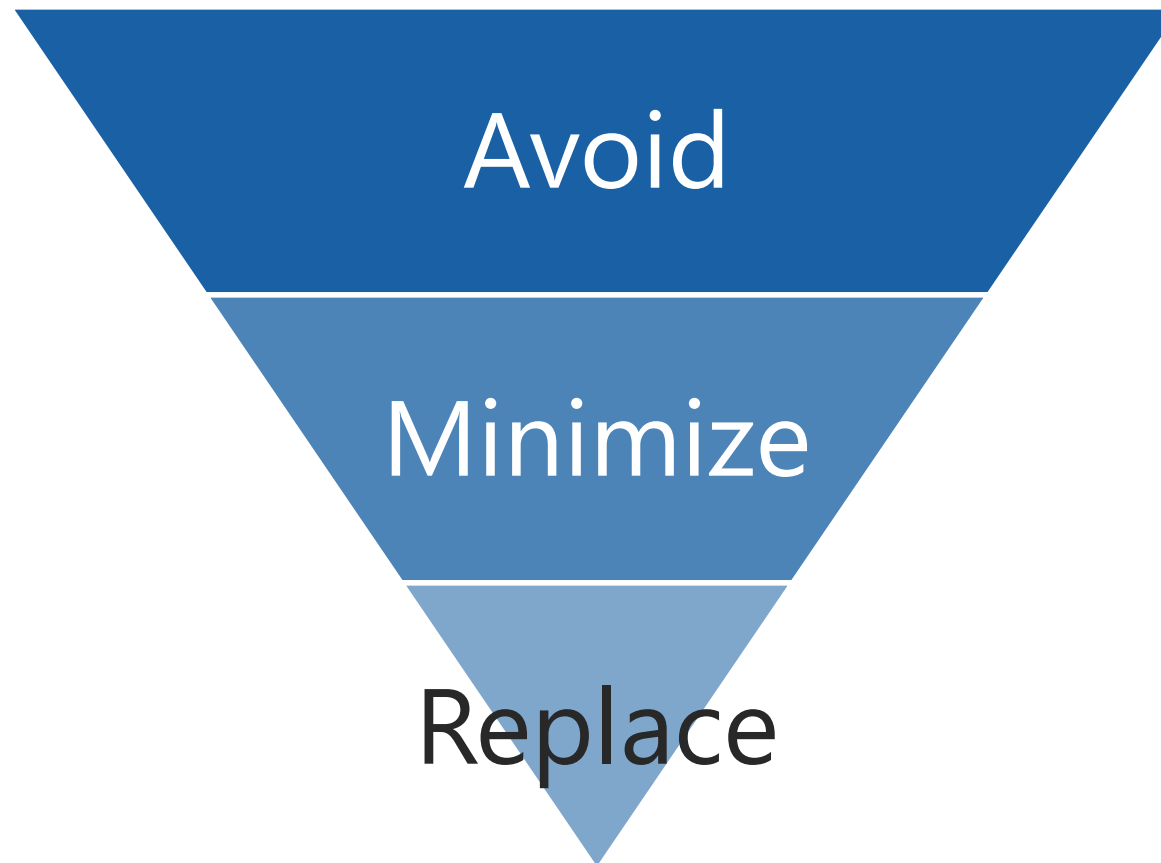
Regulations that apply to wetlands

- Water Act
 - Alberta Wetland Policy
- Public Lands Act
- Municipal Government Act
- Alberta Land Stewardship Act
- Forests Act
- Fisheries (Alberta) Act; Fisheries (Canada) Act
- Wildlife Act; Species at Risk Act

Alberta Wetland Policy

- Released 2013
- Implemented 2015
- Provides strategic direction and tools to:
 - Continue growth and economic development
 - Make informed, long-term management decisions
 - Minimize loss and degradation of wetlands

Avoidance hierarchy



Water Act permits

Wetland Impact Assessment **Form** (WAIF)

- Desktop study
- Form with impact and mitigation

Wetland Impact Assessment **Report** (WAIR)

- Field study
- Full impact report and mitigation
- Wetland replacement

Field study (WAIR)

> 30 m pavement and ditch

- Road widening and upgrades
- New-build highways: divided, freeway, arterial, collector, and some local

< 30 m, without commitment to reclaim

- New-build highways: undivided, arterial, collector, and local
- New-build access roads: all-weather, temporary and seasonal

New-build highways

- Field study (WAIR)



Desktop study (WAIF)

< 30 m pavement and ditch

- Road widening and upgrades

< 30 m, with commitment to reclaim

- New-build access roads: all-weather, temporary and seasonal

Road widening and upgrades

- Desktop study (WAIF)



Permit not applicable

< 10 m, with minimal disturbance

- New-build access roads: minimal disturbance or ice roads
- Minimized ground disturbance, surface vegetation disturbance, grade development, and surface improvement

Ice access road

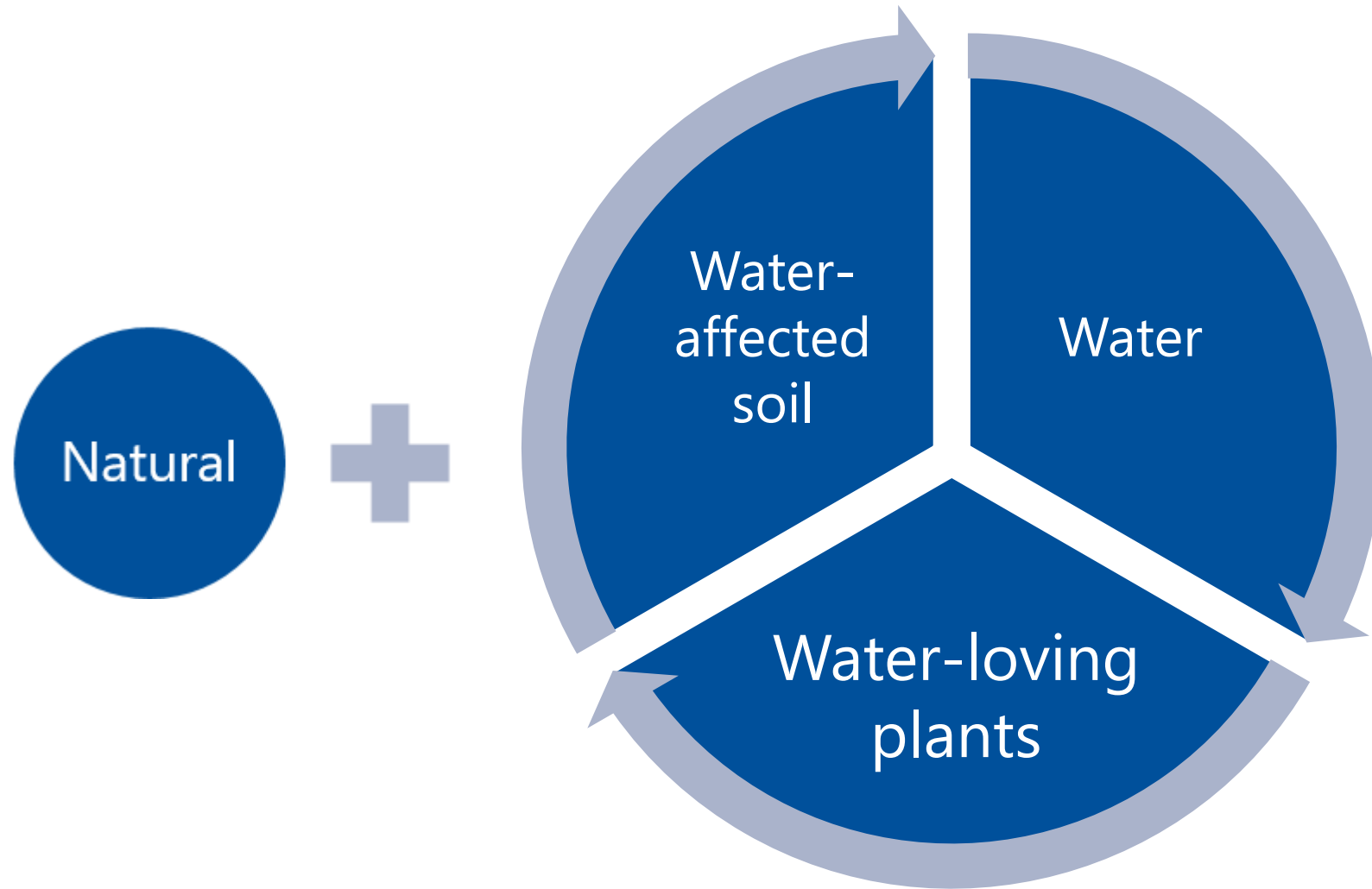
- No permit required



What is a wetland?



Wetland components



Case study



Passing-lane addition to Highway 16



Permitting

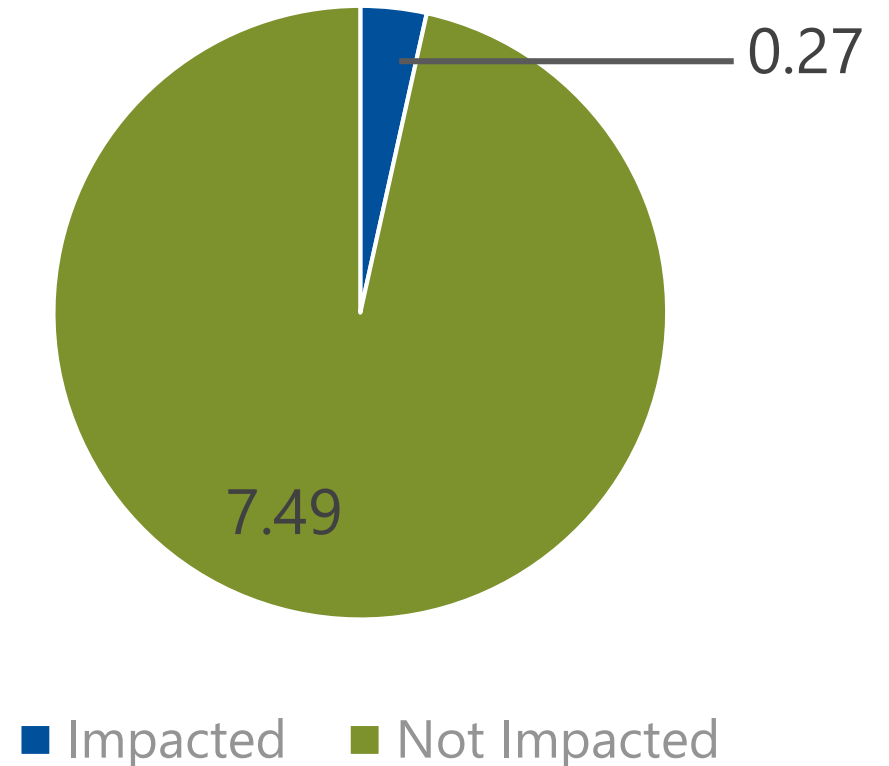
- Road widening more than 30 m
- Water Act application with WAIR



Wetland replacement

- Valued as high (A)
- Replacement fee payable = \$38,232
- Alternative: undertake a wetland restoration project for 2.2 ha

Wetland Area (ha)



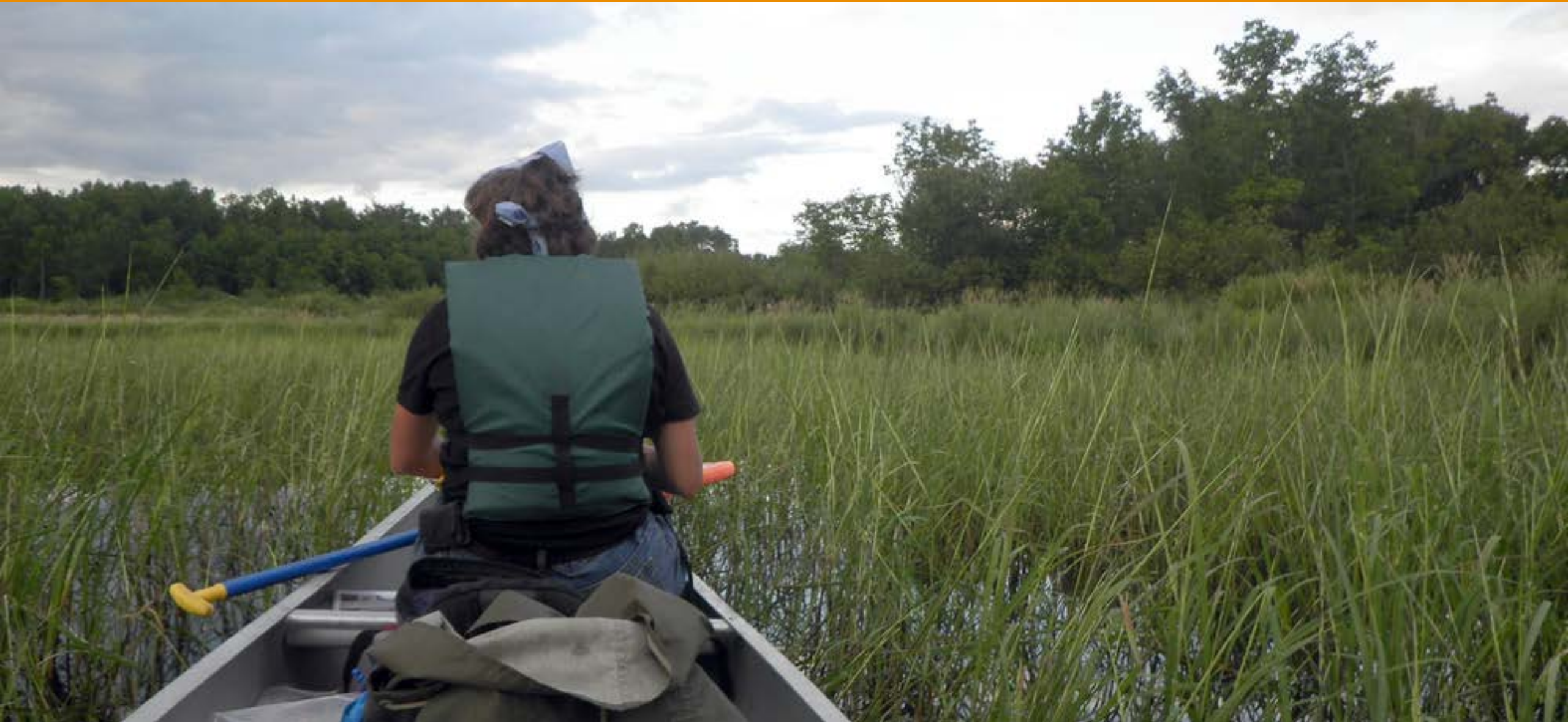
Challenges and risks

- Field studies can be conducted only during the growing season
 - Valid for three years
- Water Act application approval can take six months or more from submission date

Mitigation



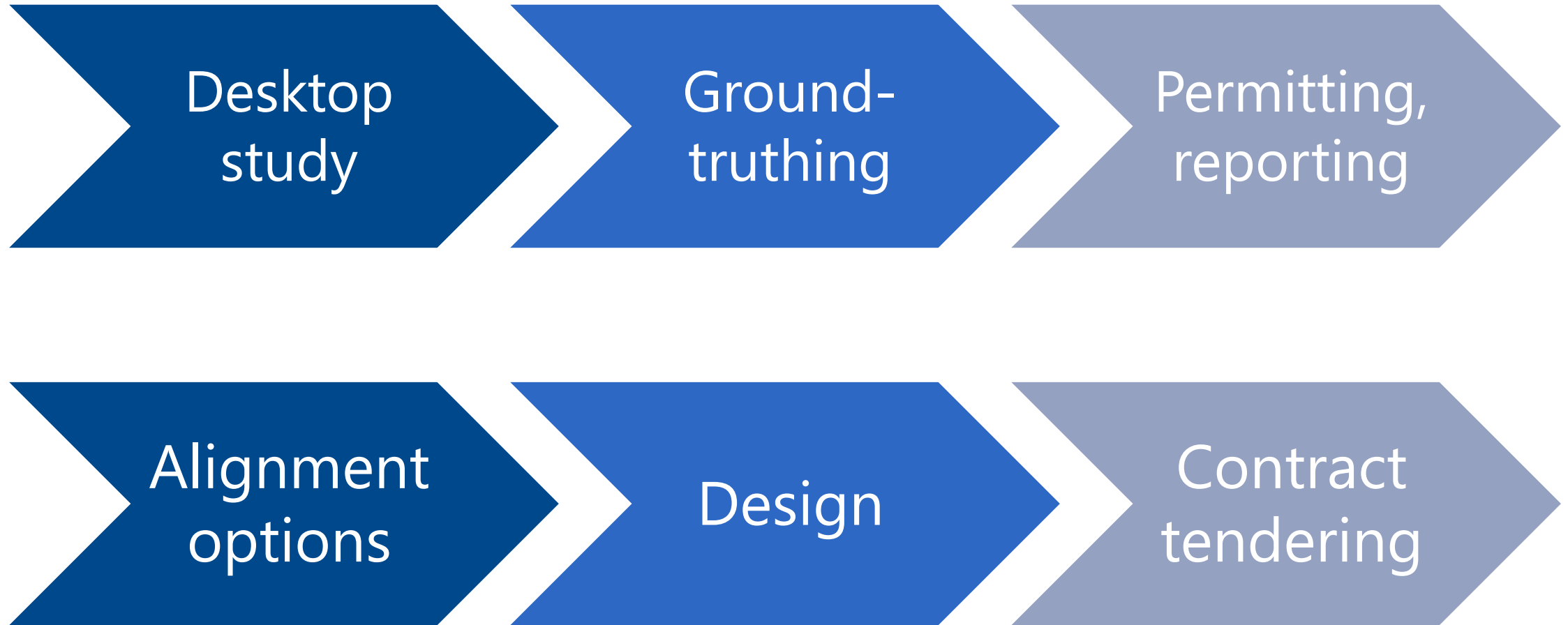
Consult a professional



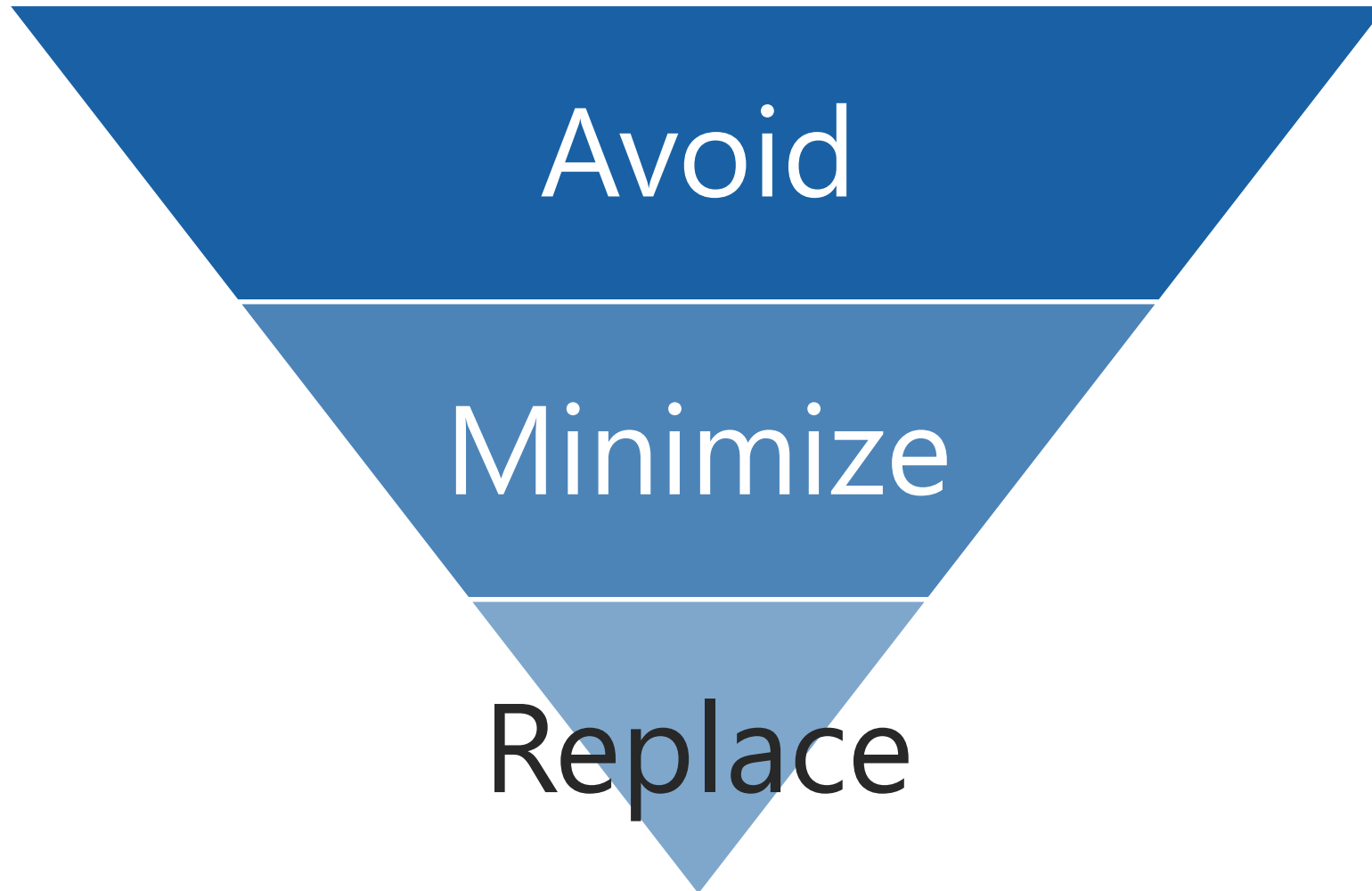
Identify wetlands early



Incorporate wetlands at all levels of design



Use the avoidance hierarchy





Thank you!