

# Building Roads Through Wetlands: How the Wetland Policy Applies

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# Outline

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

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Why care?

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# Public safety impacts

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



# Project impacts

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



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# Alberta Wetland Policy

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# Regulations that apply to wetlands

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- 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

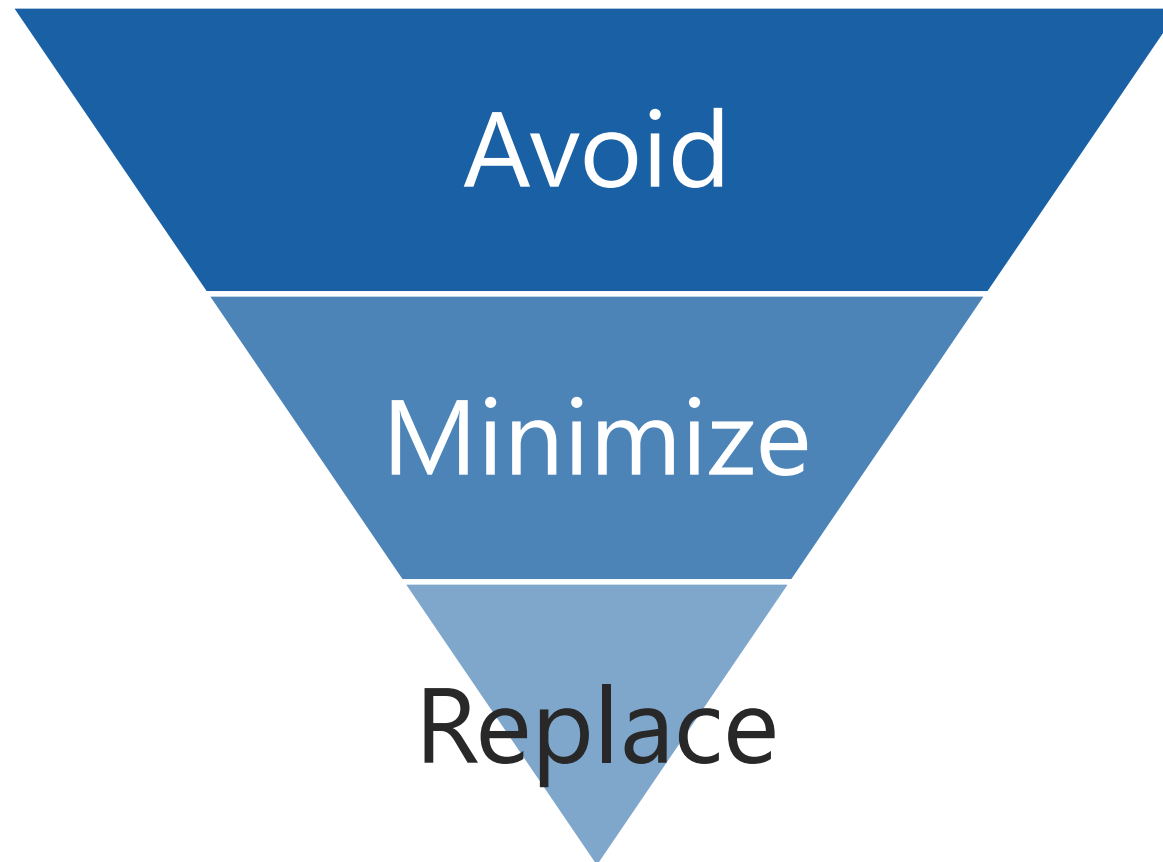
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- Released 2013
- Implemented 2015
- Provides strategic direction and tools to:
  - Continue growth and economic development
  - Make informed, long-term management decisions
  - Minimize loss and degradation of wetlands



# Avoidance hierarchy

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# Water Act permits

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## 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)

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## > 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)

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< 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

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< 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





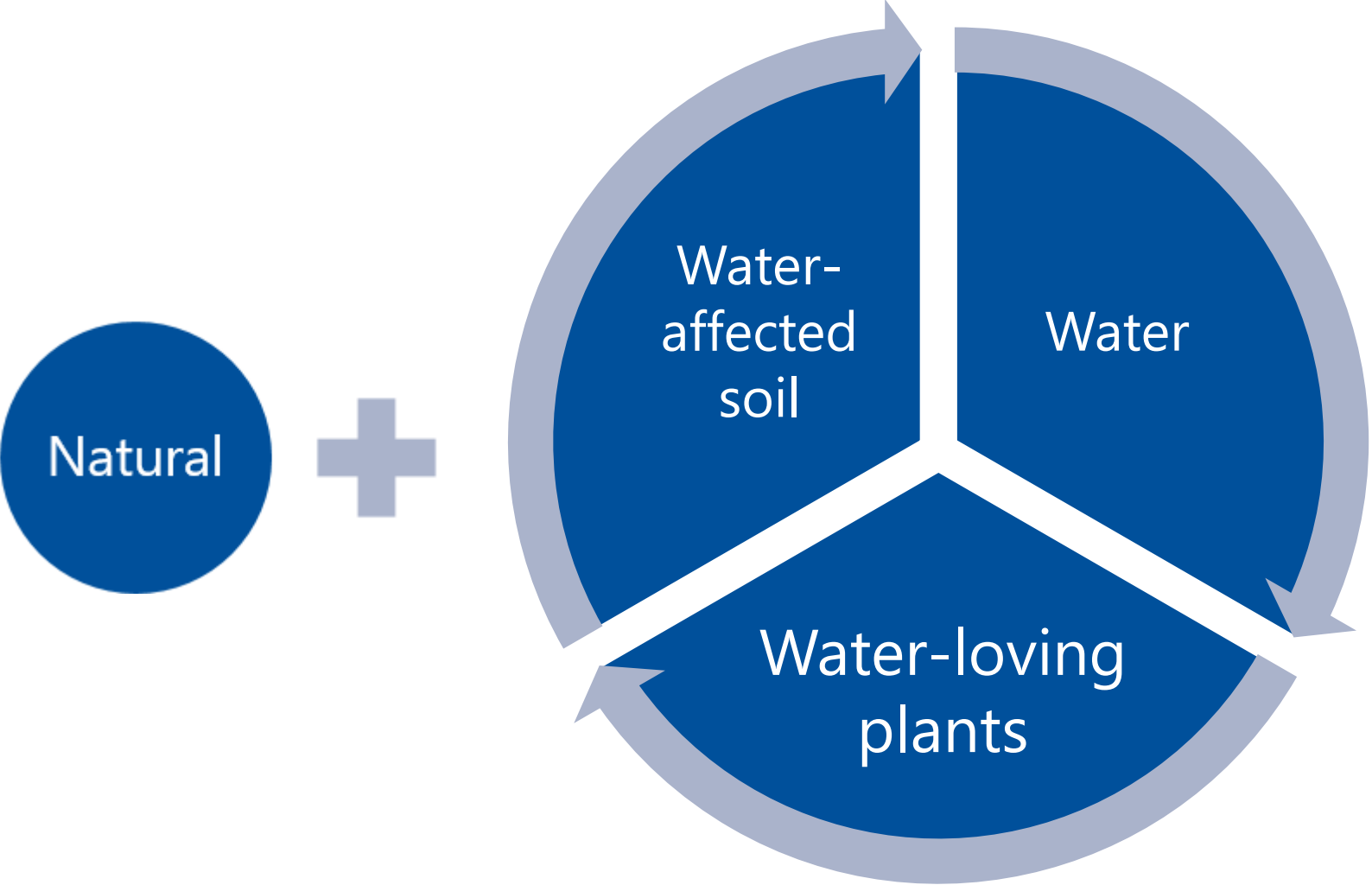
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# What is a wetland?

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# Wetland components



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# Case study

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# Passing-lane addition to Highway 16





# Permitting

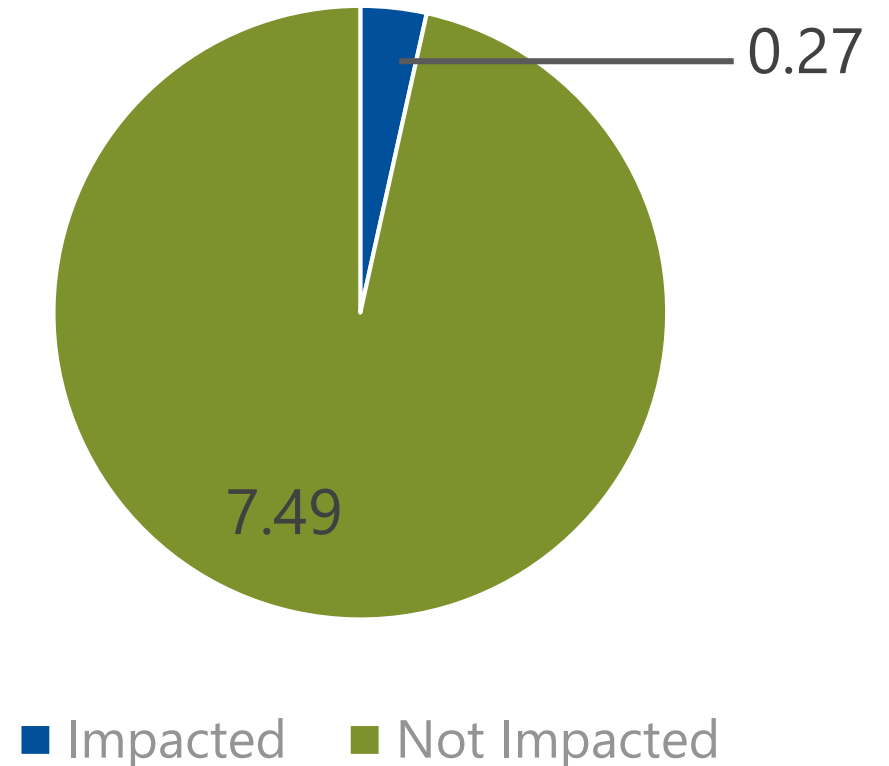
- Road widening more than 30 m
- Water Act application with WAIR



# 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

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- 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

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# Mitigation

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Consult a professional



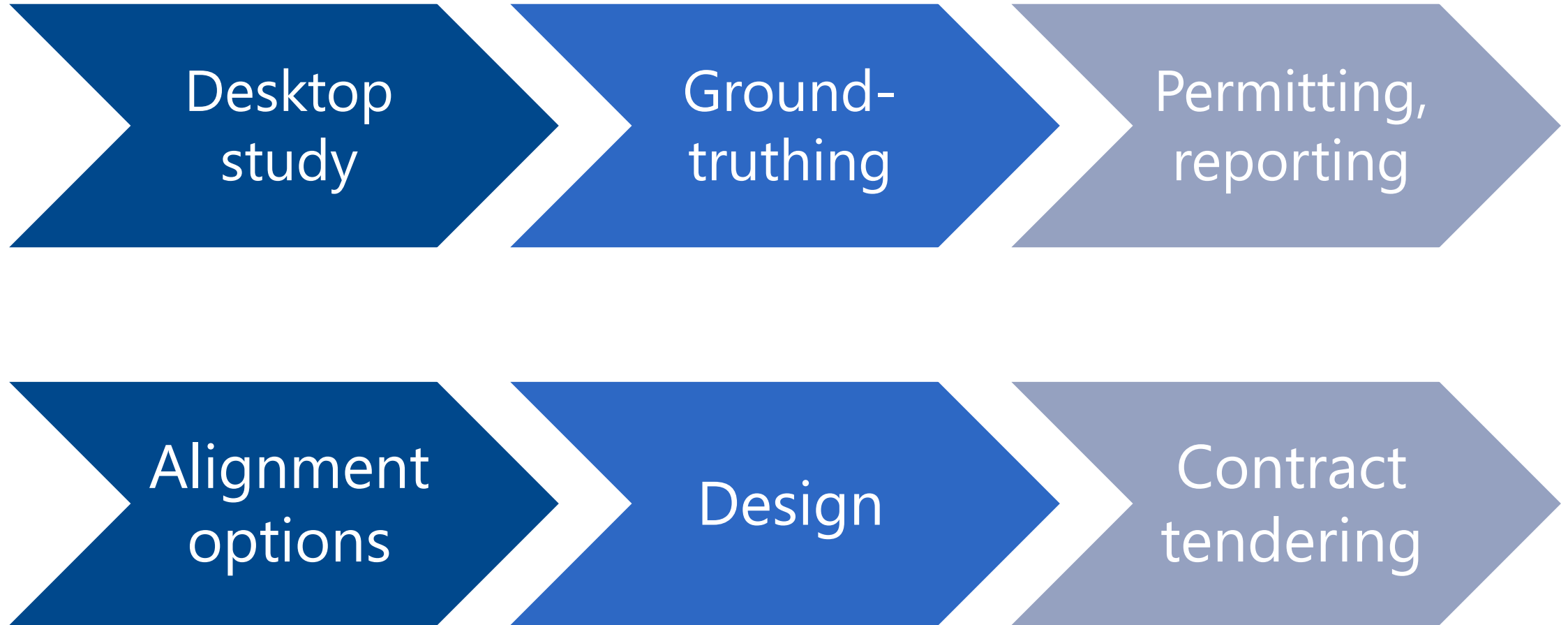


# Identify wetlands early



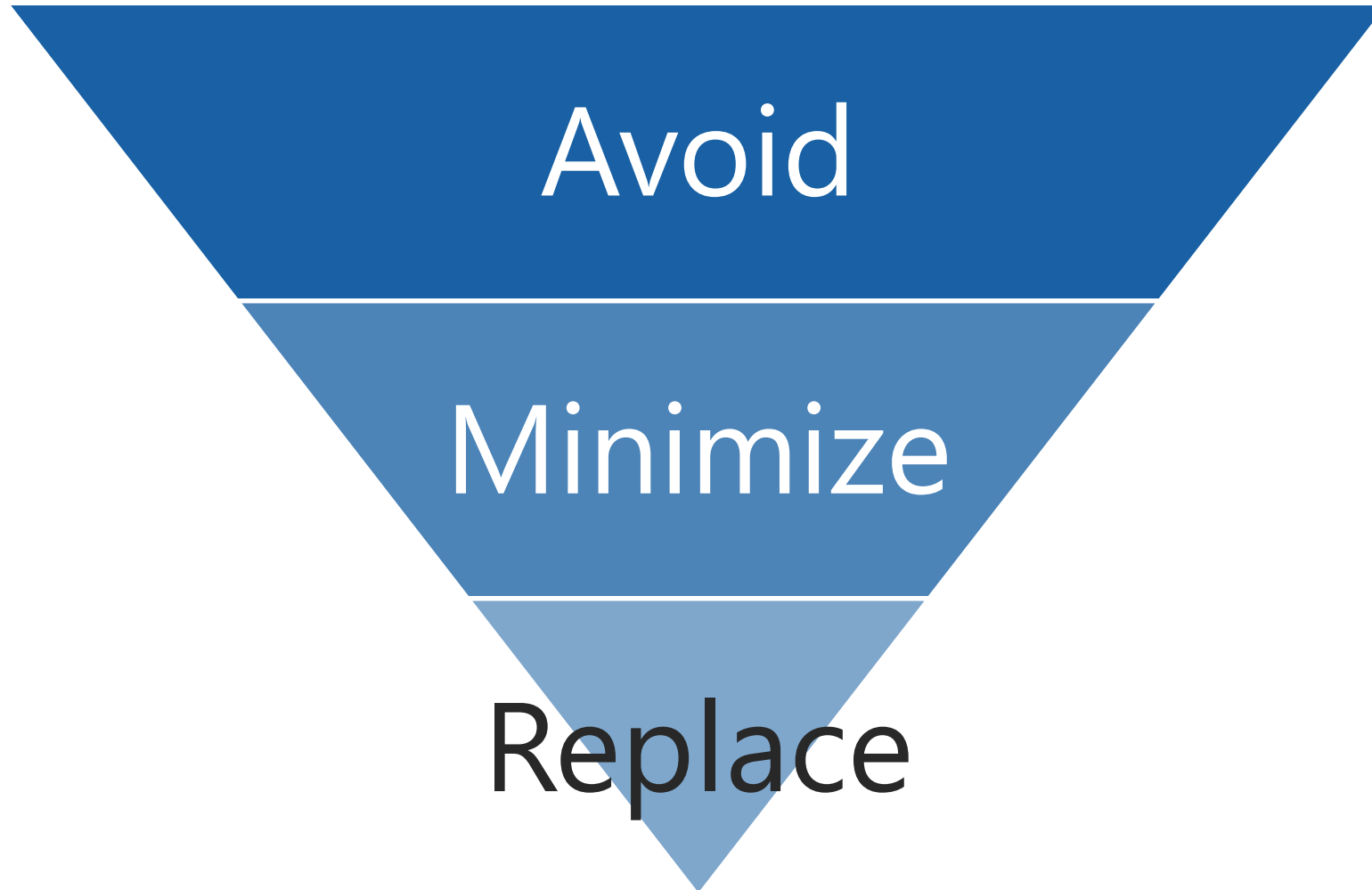
# Incorporate wetlands at all levels of design

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# Use the avoidance hierarchy

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*Thank you!*