

An aerial photograph of a lush green valley in British Columbia, Canada. The foreground is dominated by a dense forest of tall, dark evergreen trees. A winding river flows through the center of the valley, surrounded by vibrant green meadows and small ponds. In the background, majestic mountains rise, their peaks partially covered in snow under a bright, slightly cloudy sky. A thick, curved yellow and orange border frames the bottom and sides of the image.

Policy Implementation in British Columbia, Canada

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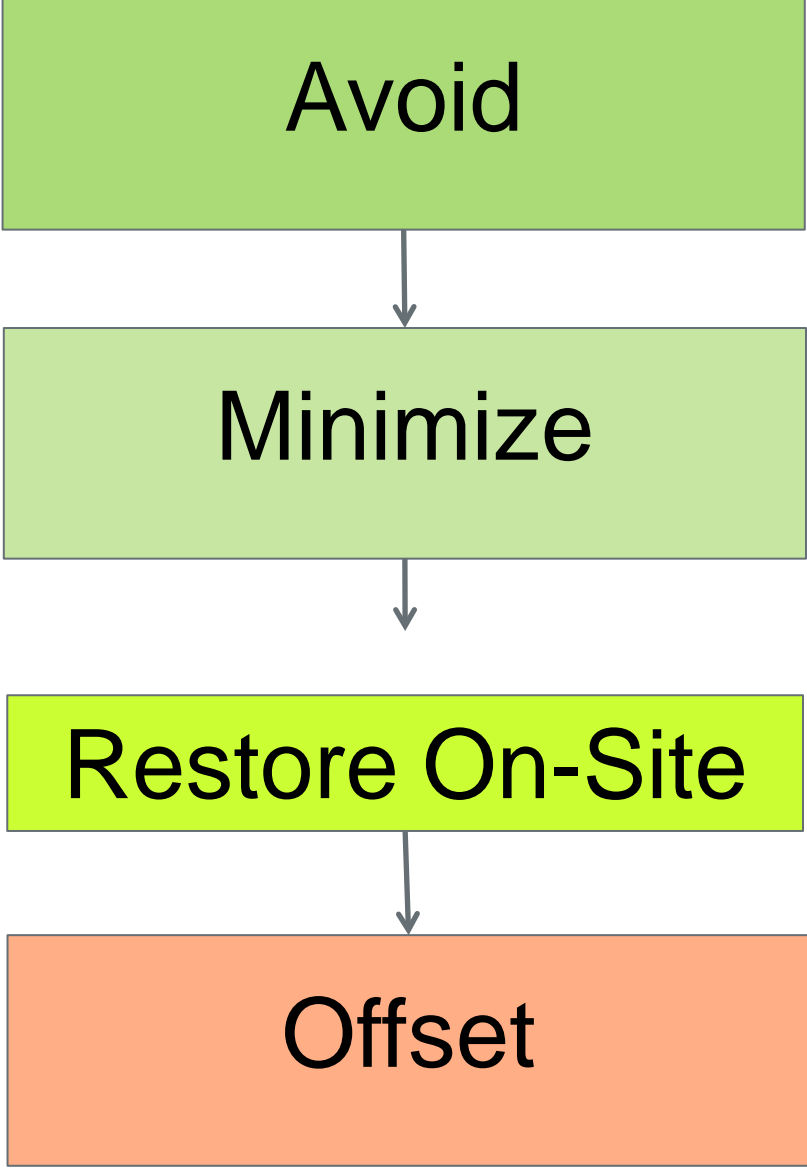
IAIA Symposium
November 14, 2017

Objectives of Research and Analysis

- Extent of provincial policy incorporation into environmental assessments
- Steps of the mitigation hierarchy prioritized for species at risk
- Avoidance type for species at risk



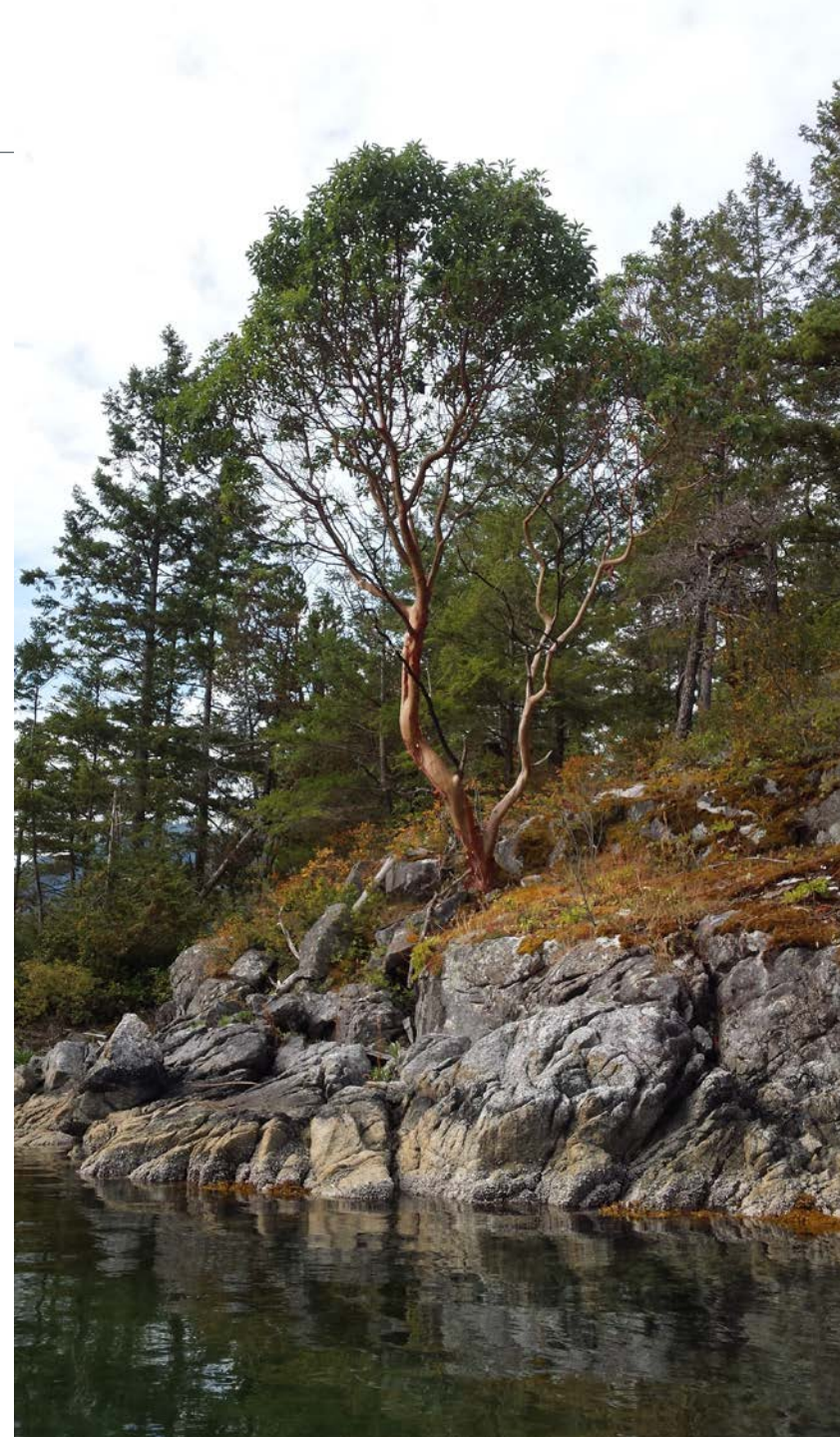
Mitigation Hierarchy



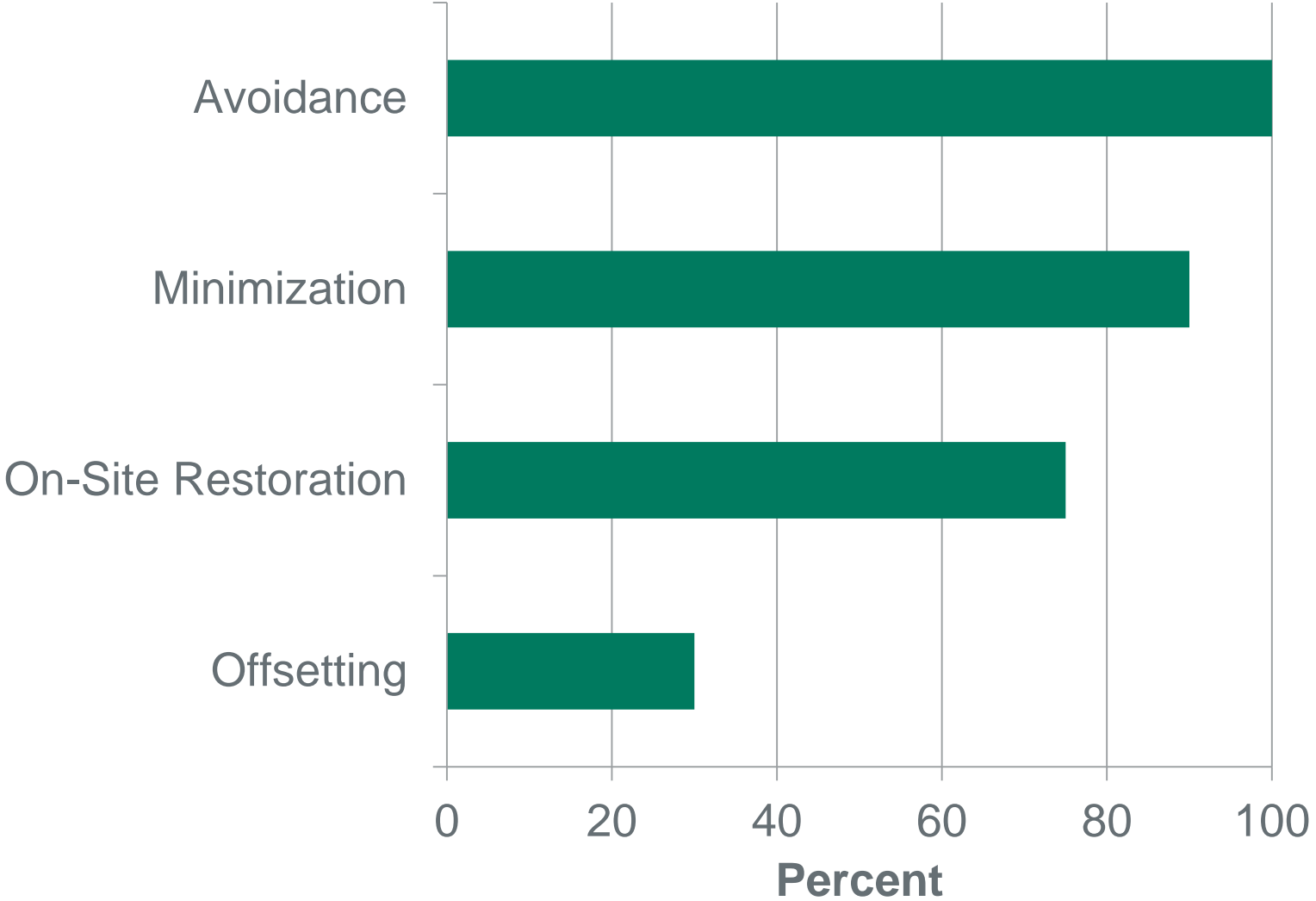
Location
Means
Timing

Species at Risk in Canada

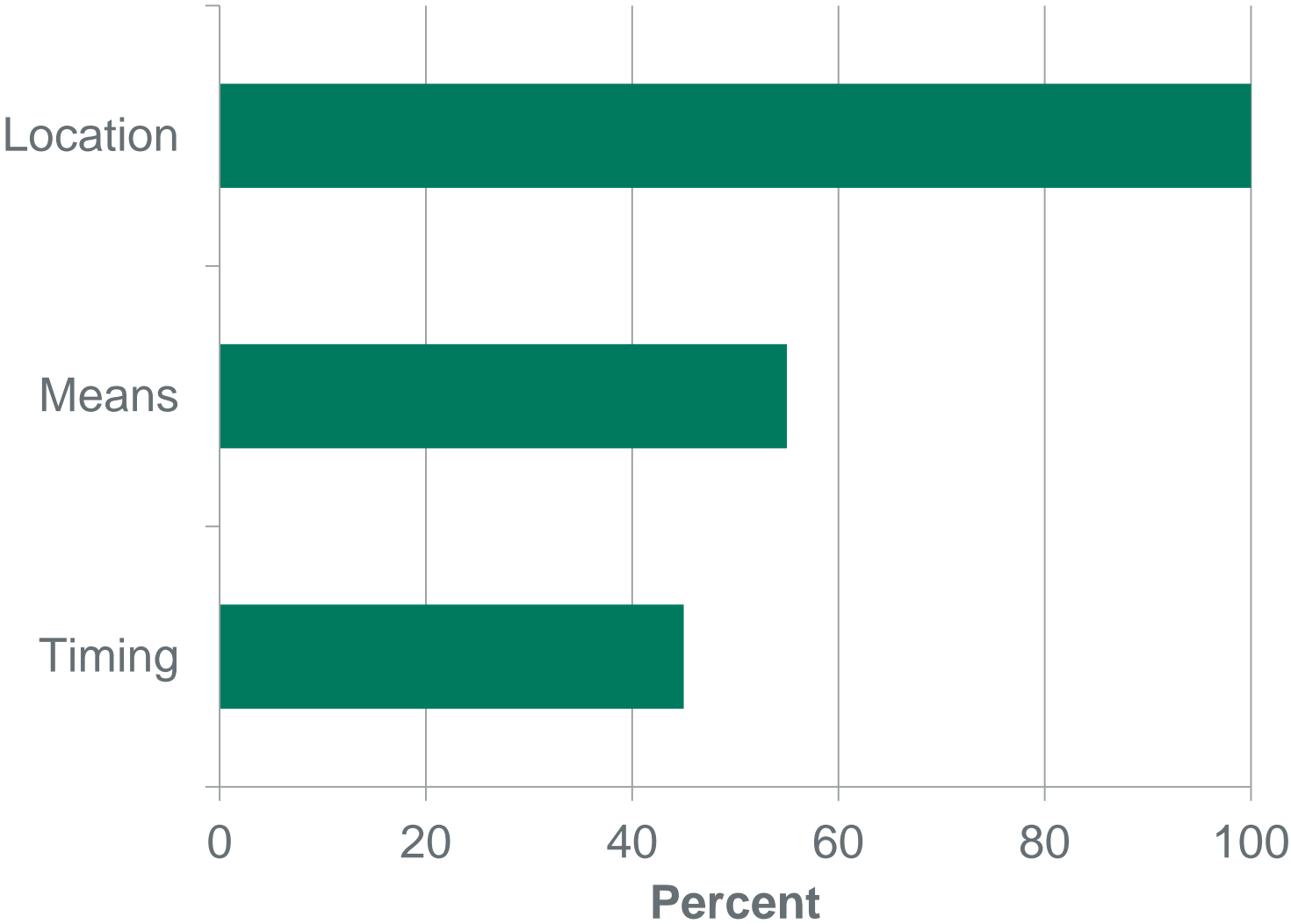
- Committee on the Status of Endangered Wildlife in Canada (COSEWIC)
- Species added to Schedule 1 of *Species at Risk Act (SARA)*
- Critical habitat identified for Threatened and Endangered species



Best Case Scenario Mitigation Hierarchy



Best Case Scenario Avoidance



Methods – Policy Integration

- Reviewed publically available projects from BC Environmental Assessment Office (EAO)
- Determined percentage of EAO documents with policy citation
- Reviewed proponent documents for species at risk
- Determined percentage of proponent documents with policy citation

Methods – Adherence to Mitigation Hierarchy

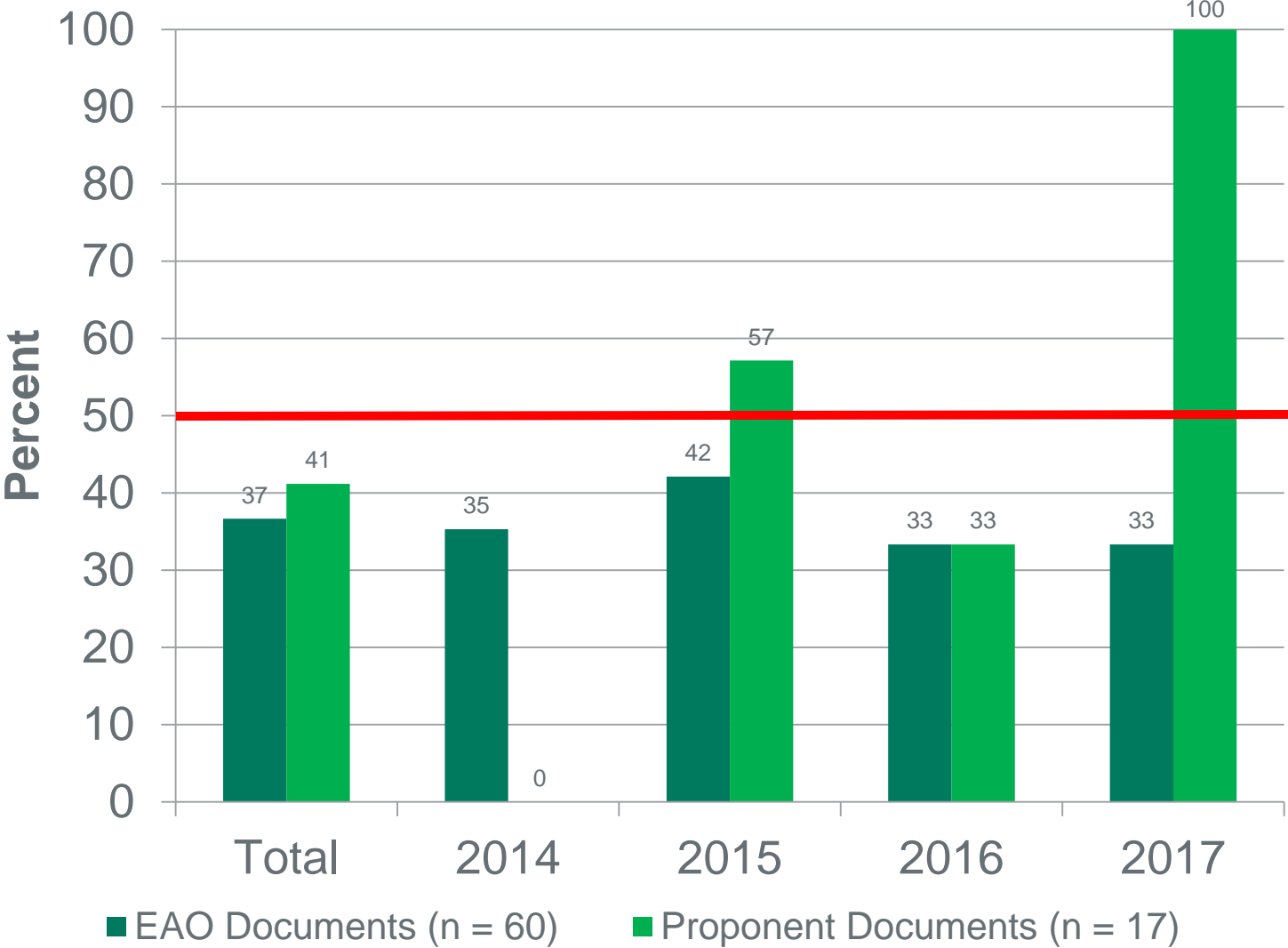
- Did not further consider species without project interaction or residual effect
- Categorized mitigation according to hierarchy for:
 - Species specific mitigation (e.g. olive-sided flycatcher)
 - Group specific mitigation (e.g. migratory birds)
 - Generic mitigation (e.g. restoration on-site through reclamation)
- Determined percentage of application of each mitigation step

Sample Sizes

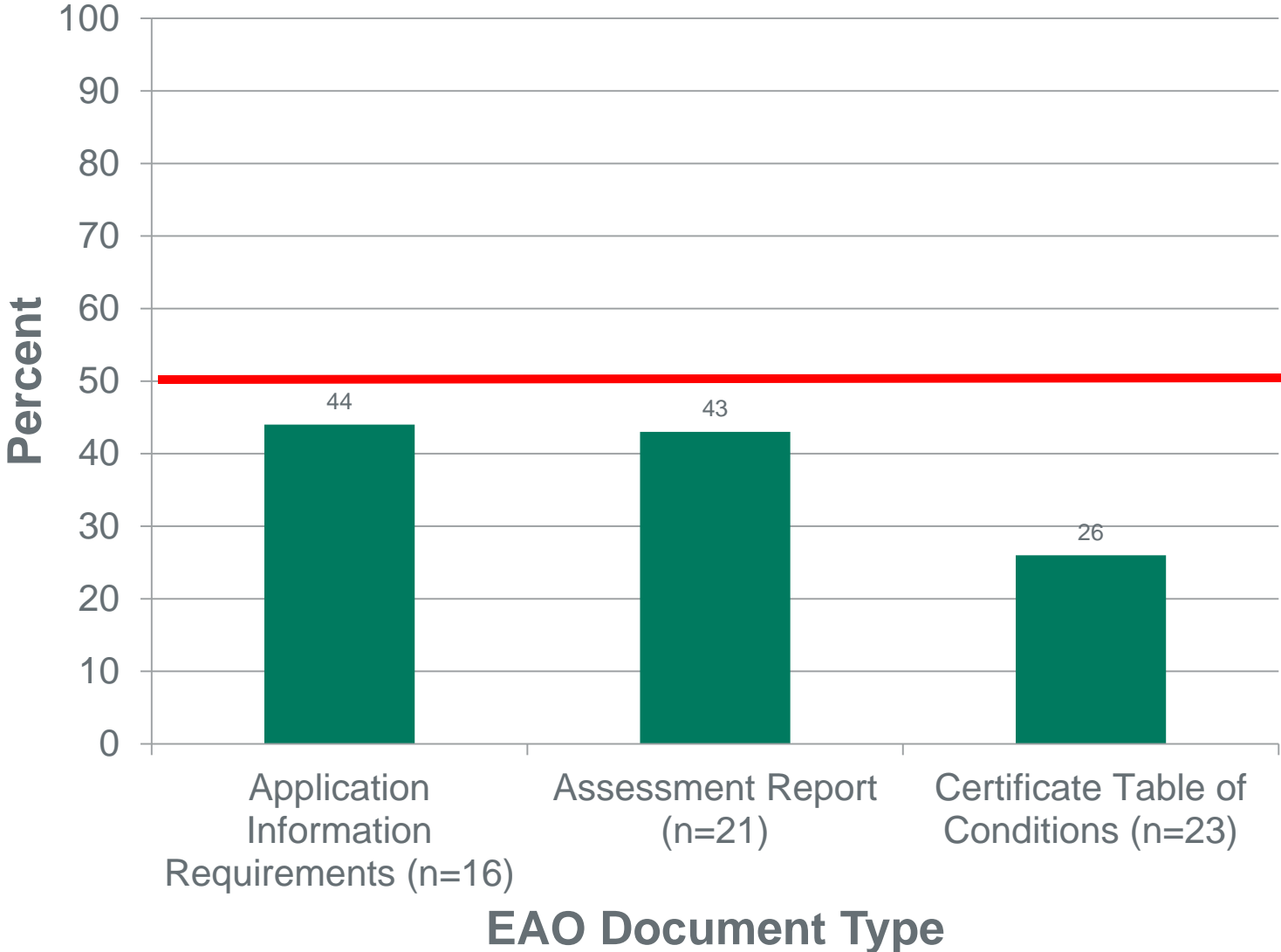
- 60 EAO documents (28 projects)
- 54 proponent documents (17 projects)
- 24 threatened and endangered species (1 amphibian, 2 plants, 5 fish, 7 mammals, 9 birds)



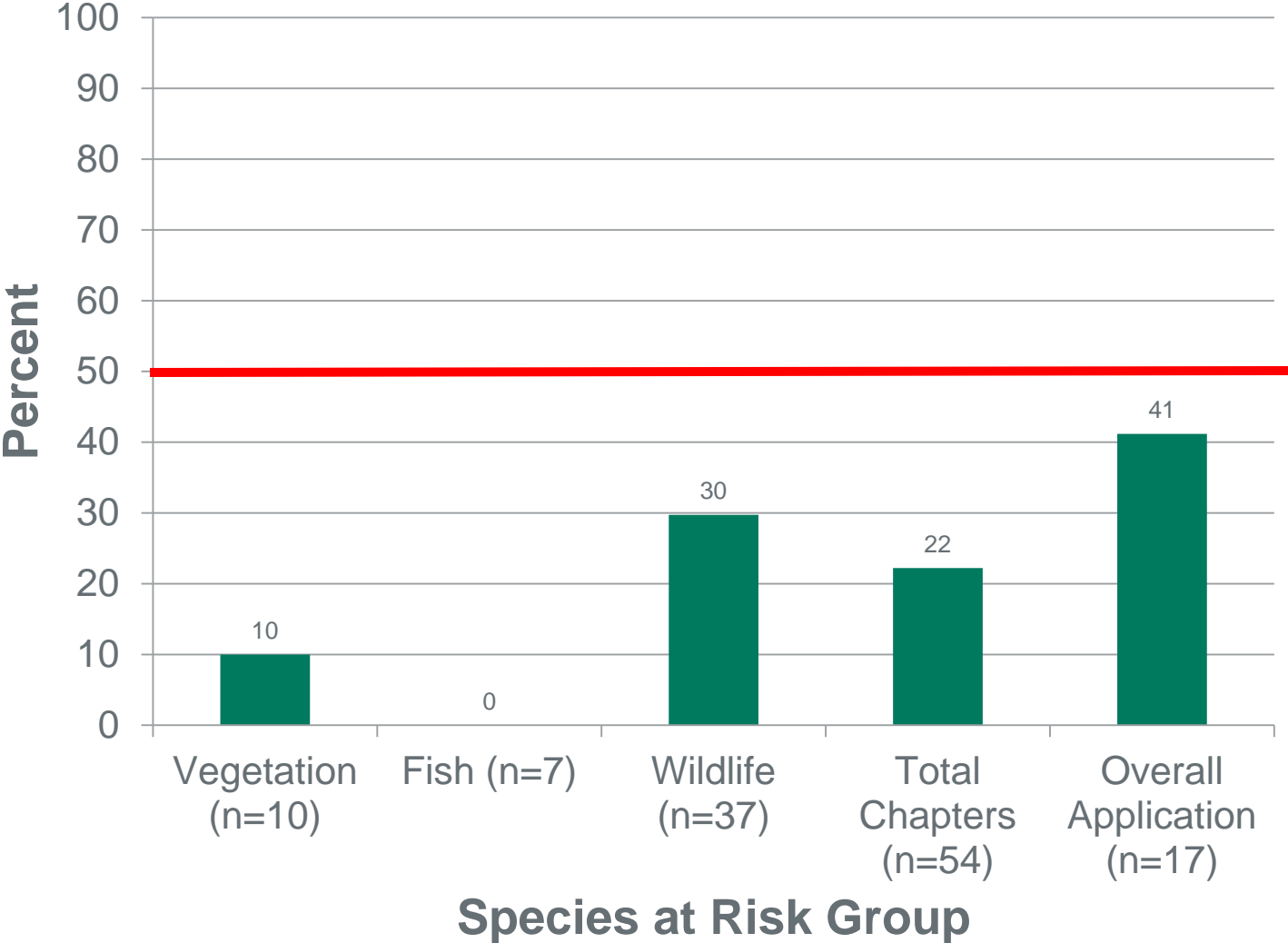
Percent of Documents with Policy Citation



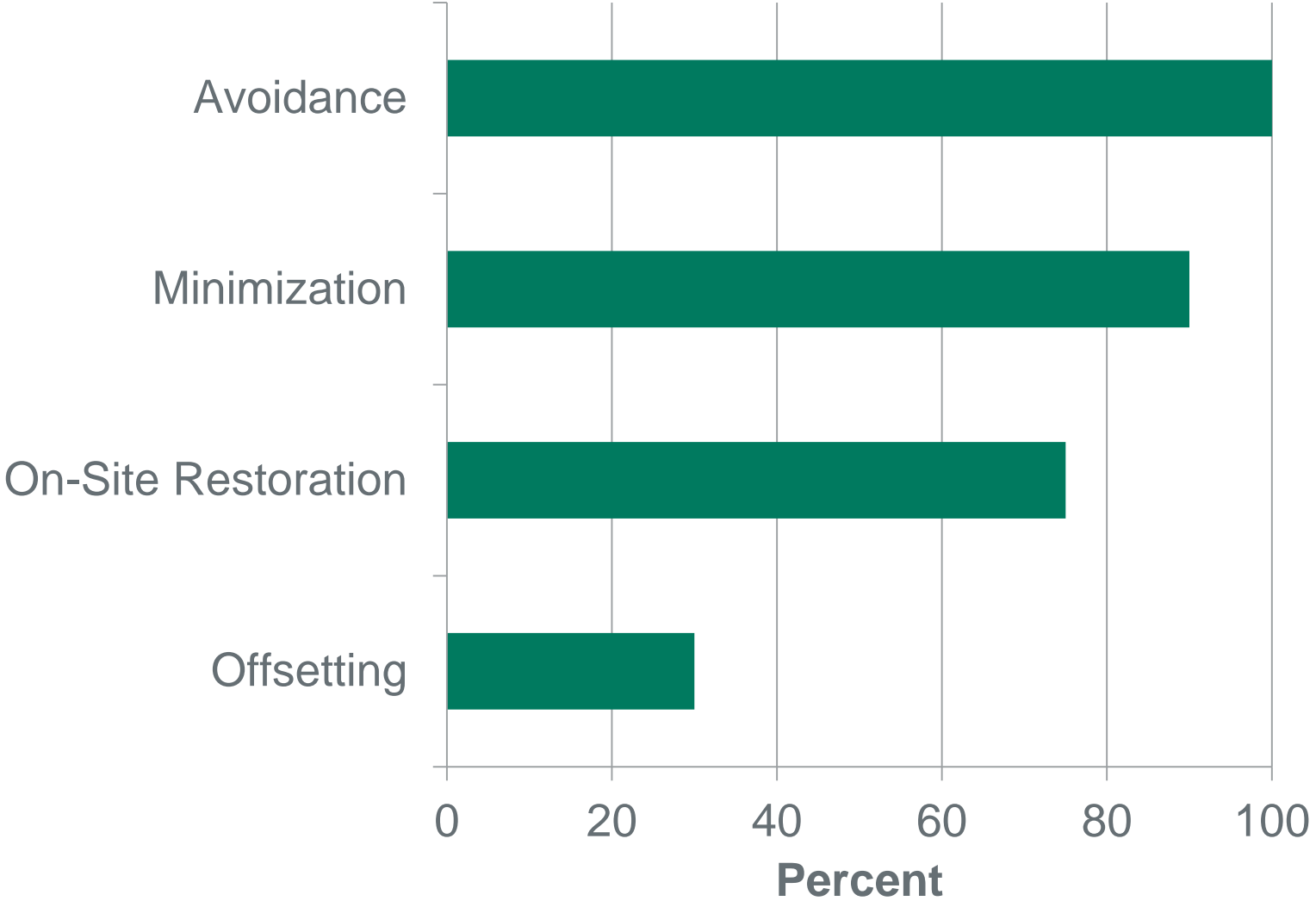
Percent of EAO Documents with Citations



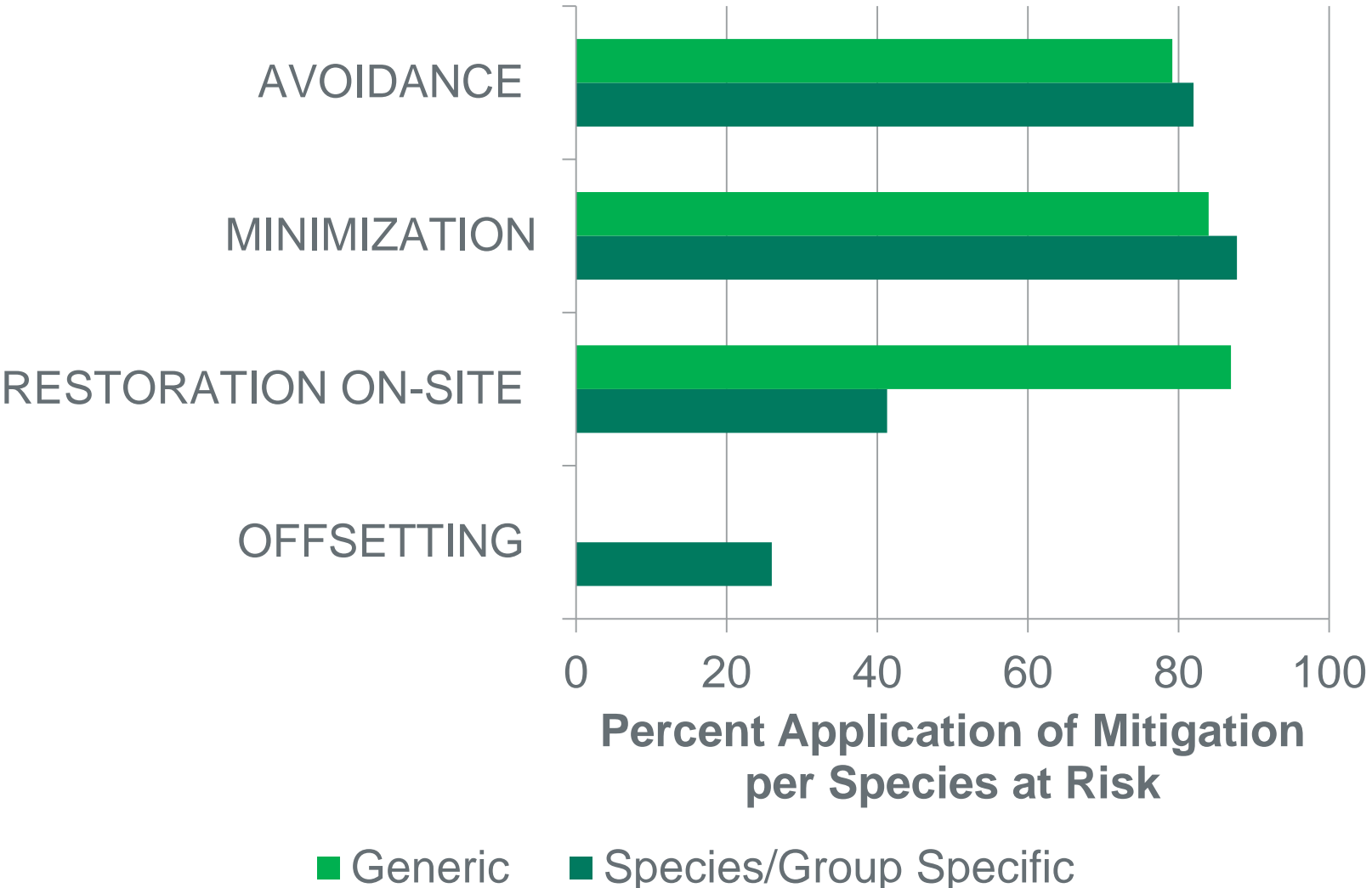
Percent of Proponent Chapters with Citations



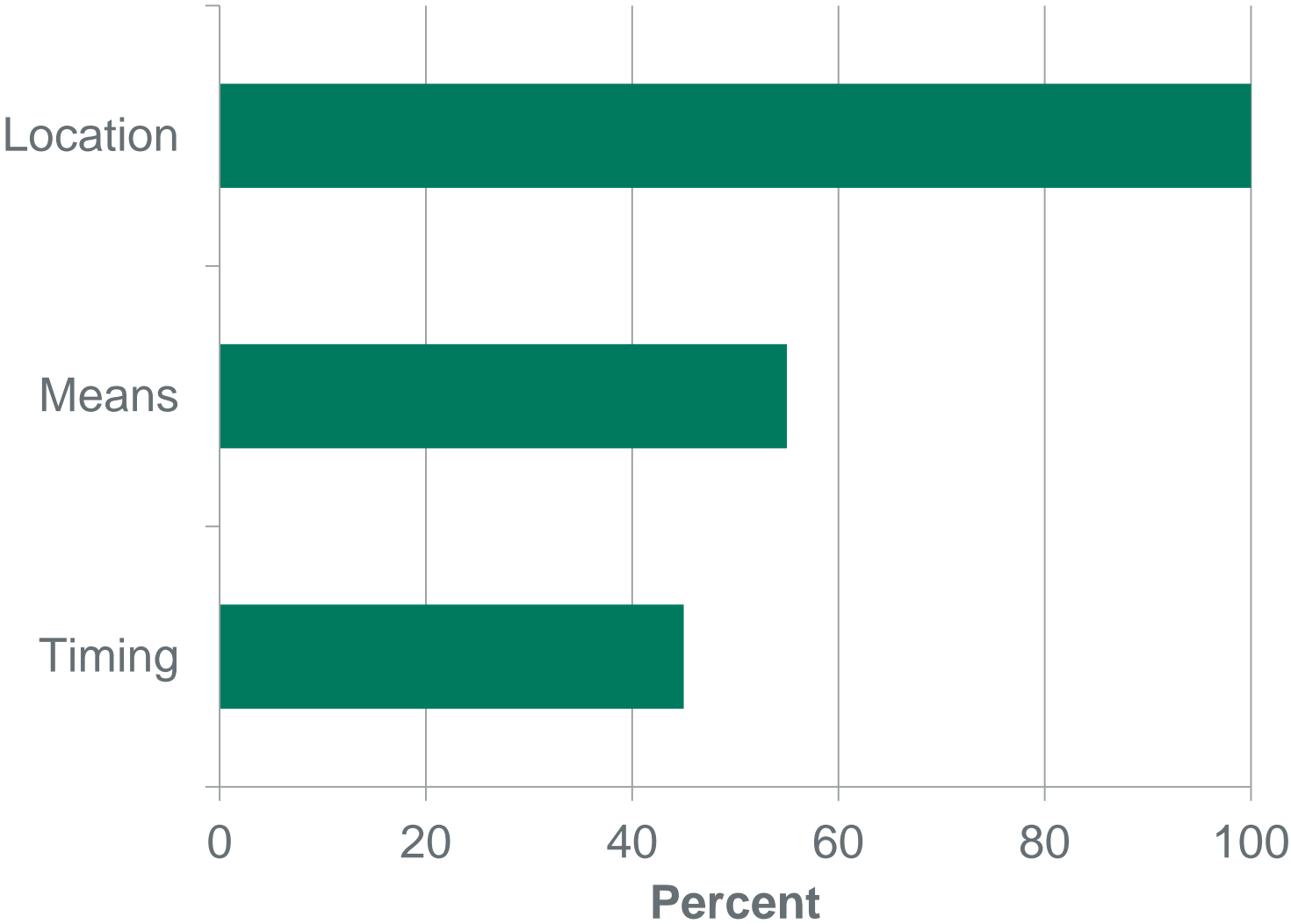
Best Case Scenario Mitigation Hierarchy



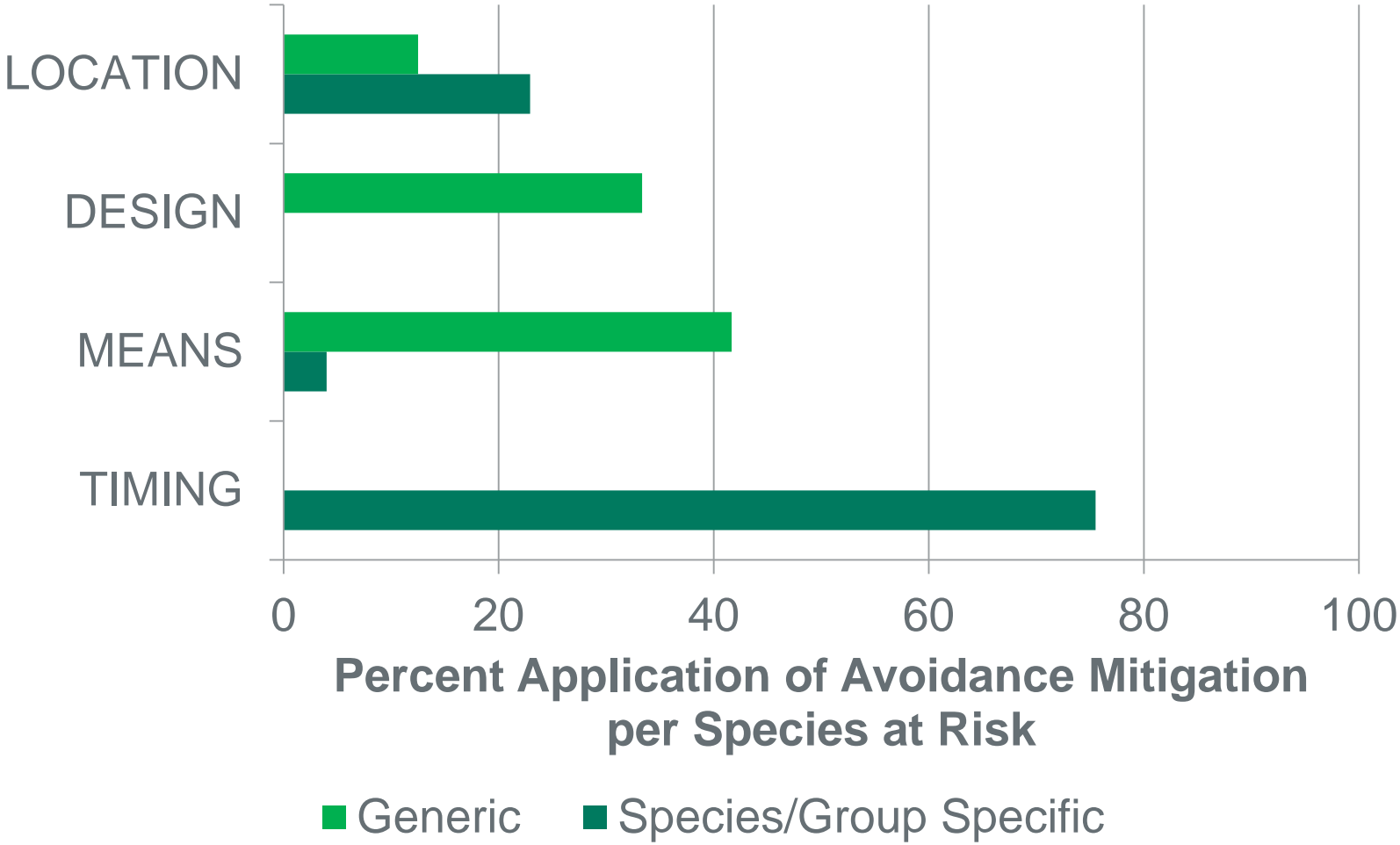
Adherence to Mitigation Hierarchy



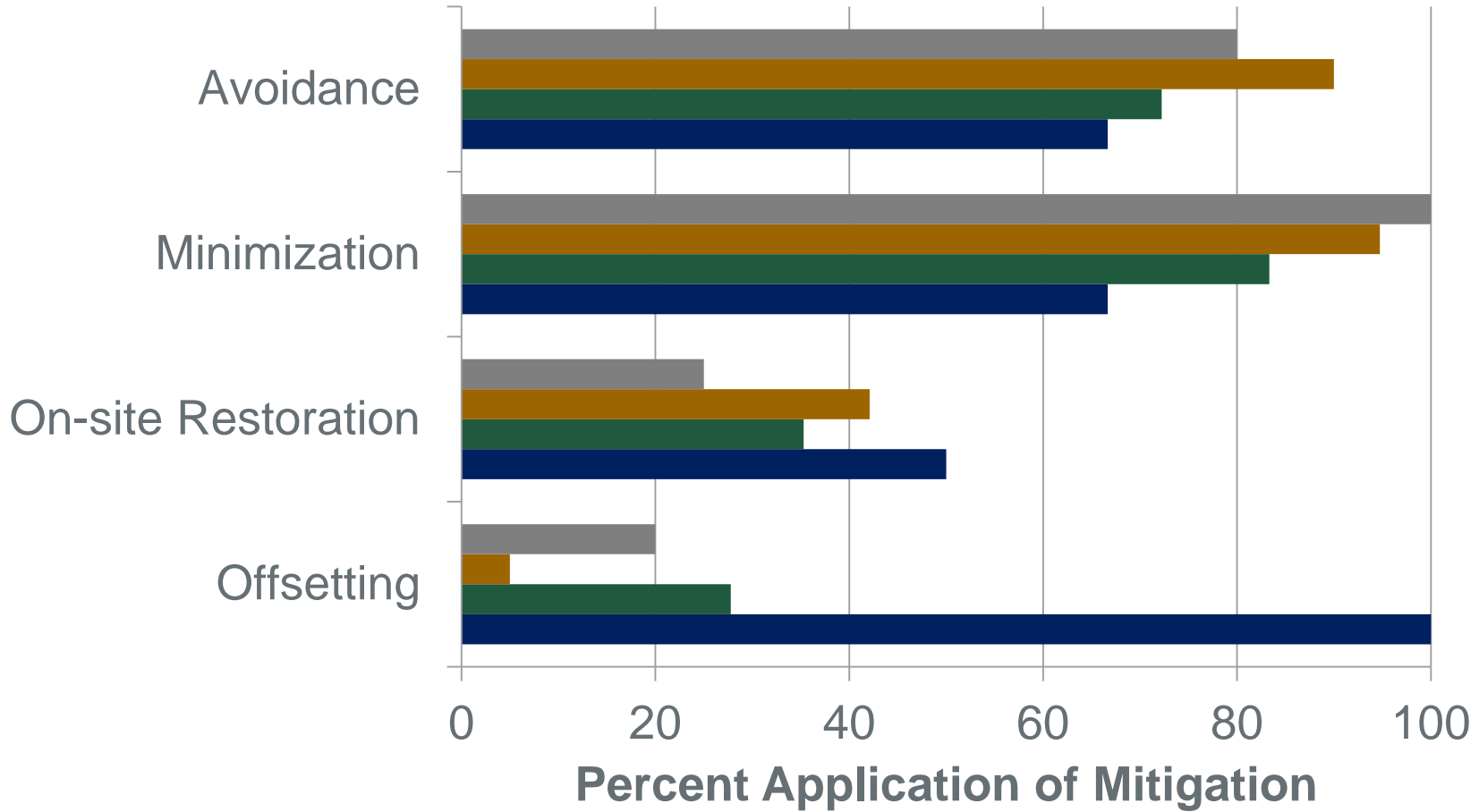
Best Case Scenario Avoidance



Prevalence of Avoidance Types



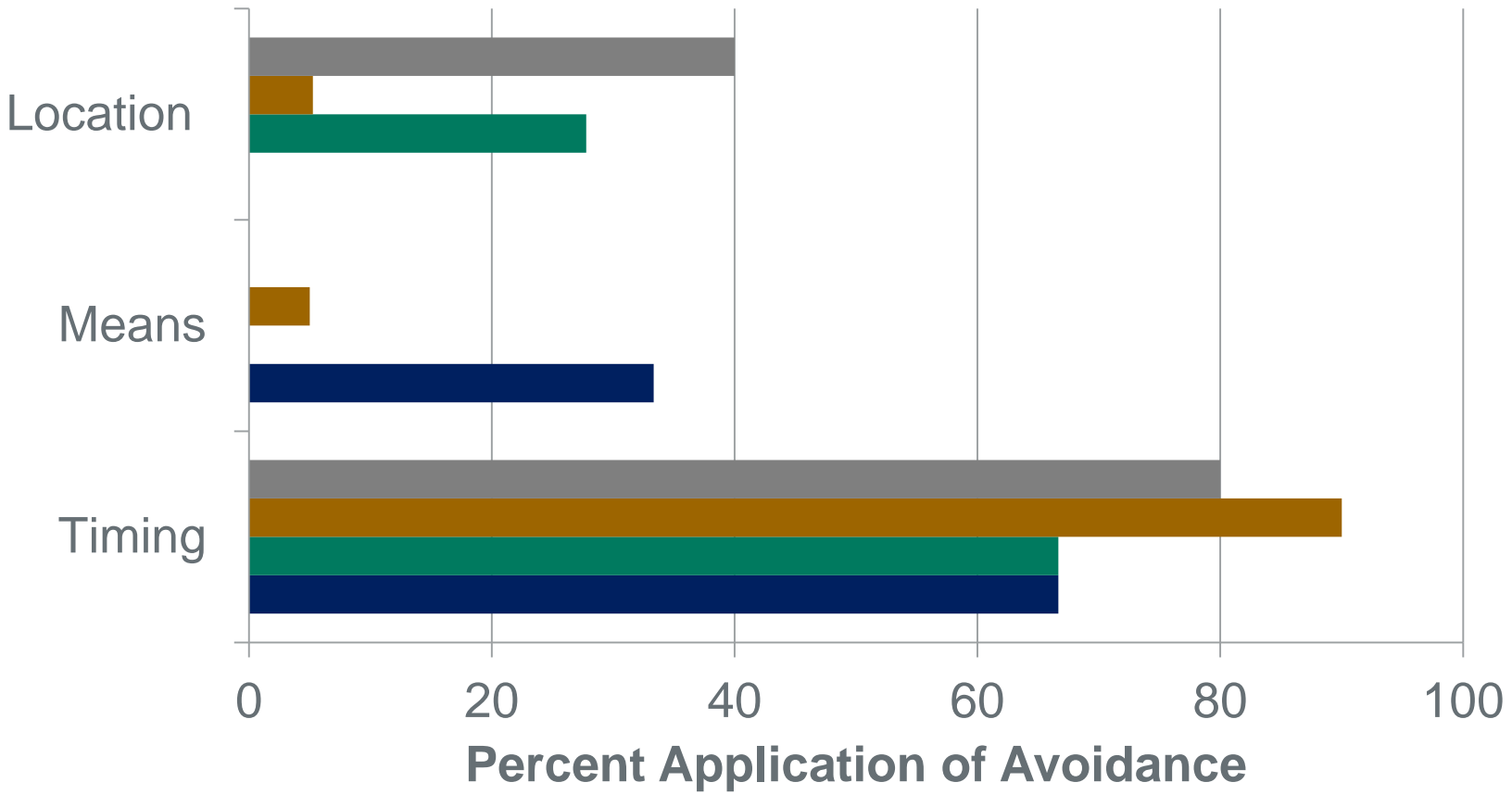
Mitigation Hierarchy According to Group



■ Raptors (n=5) ■ Migratory Birds (n=20) ■ Mammals (n=18) ■ Fish (n=3)

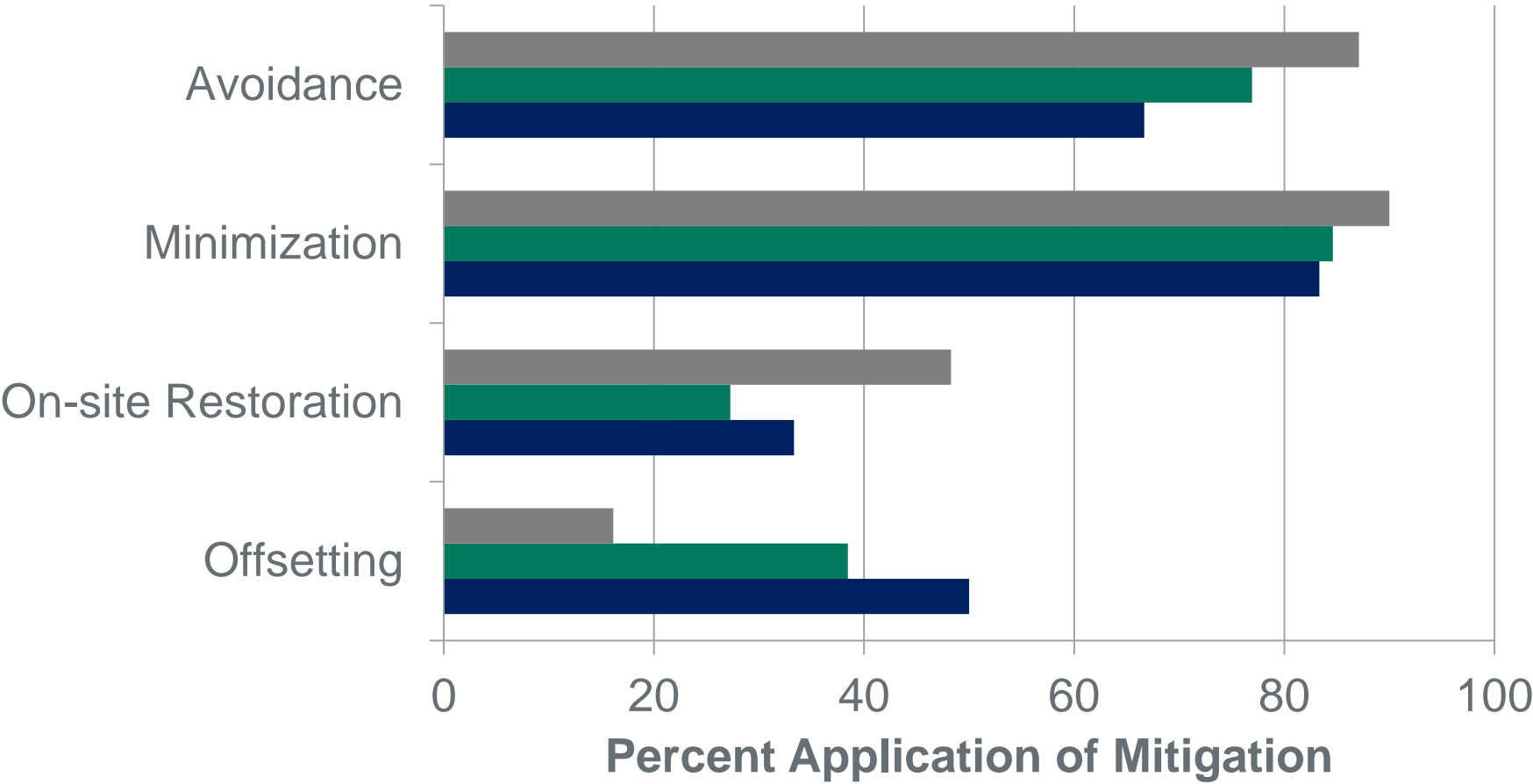


Avoidance According to Group



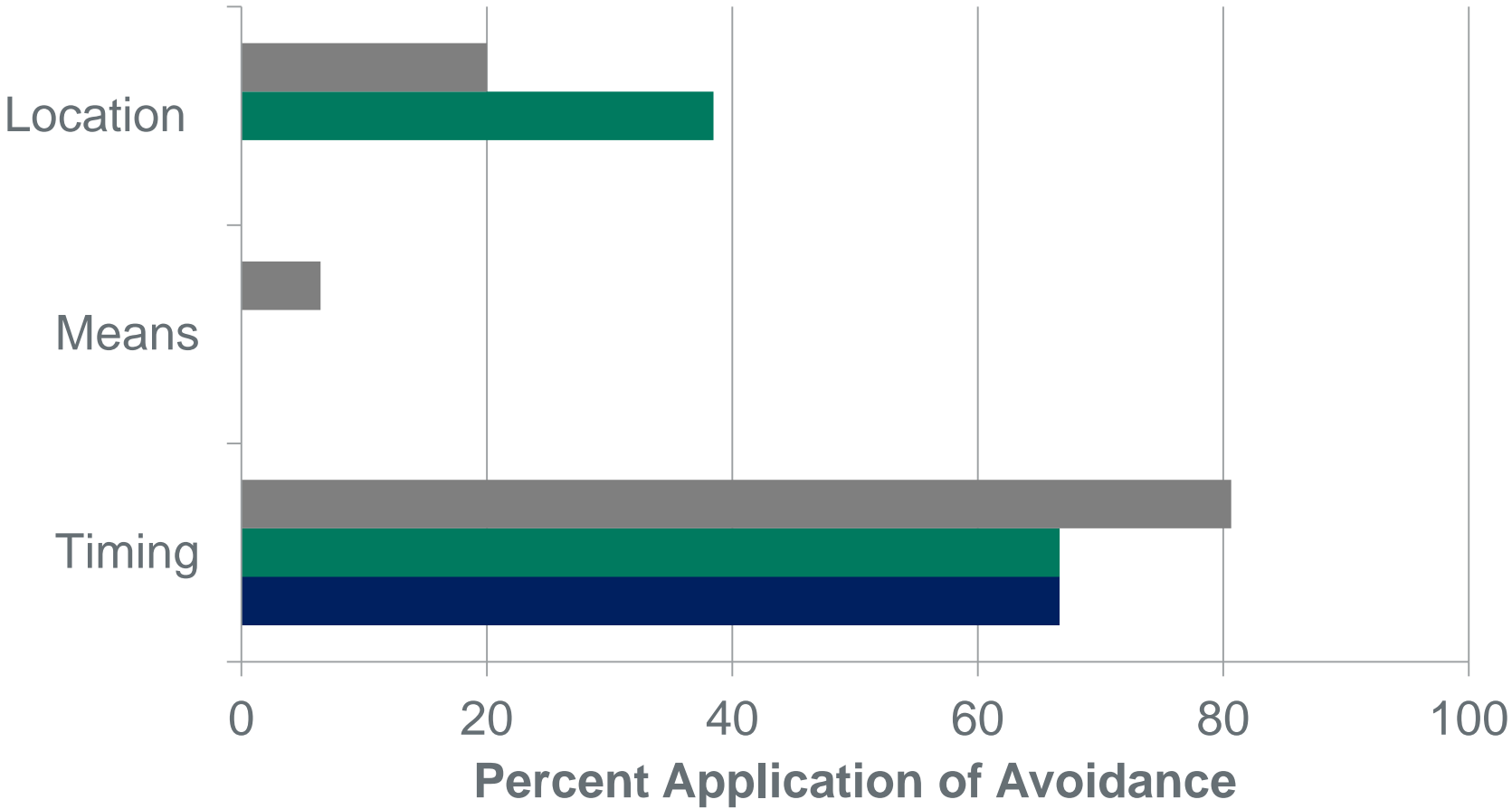
■ Raptors (n=5) ■ Migratory Birds (n=20) ■ Mammals (n=18) ■ Fish (n=3)

Mitigation Hierarchy According to Status



■ Endangered (Schedule 1) ■ Threatened (Schedule 1) ■ Endangered (COSEWIC)

Avoidance According to Status



■ Endangered (Schedule 1) ■ Threatened (Schedule 1) ■ Endangered (COSEWIC)

Conclusions

- Policy incorporation <50%
- Minimization prioritized over avoidance
- Avoidance is primarily timing and not spatial
- Increasing expectation of spatial avoidance as priority would benefit species at risk

