

Bald and Golden Eagle Protection Act Compensatory Mitigation July 2024

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Eagle Act Overview

Under the Act: it is illegal to *take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import*, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof."

The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, *molest or disturb*."

Regulations further define **disturb** as "to agitate or bother a bald or golden eagle to a degree that causes or is likely to cause injury, interference in normal breeding, feeding, or sheltering behavior or nest abandonment."

The Eagle Act does not regulate eagle habitat aside from eagle nests or substantial interference to habitat that causes changes in breeding behavior or productivity at a specific territory.



Eagle Act Overview – Preservation Standard

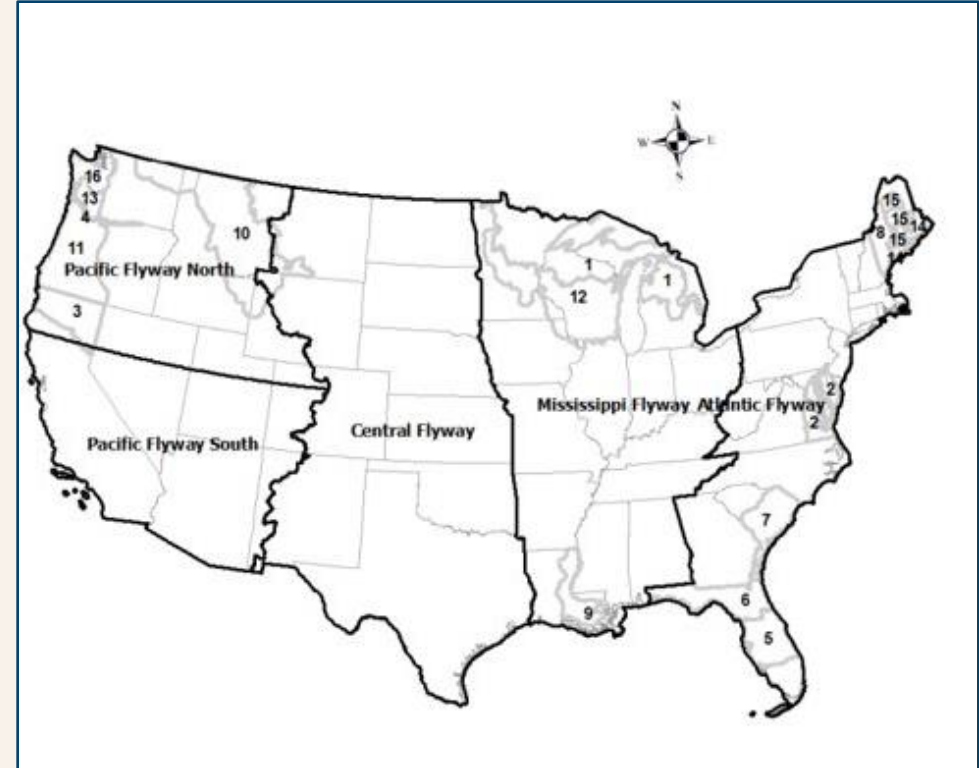


Eagle Act:

“compatible with the preservation of the bald eagle or the golden eagle.”

Current Regulation:

*“consistent with the goals of maintaining stable or increasing breeding populations in all **eagle management units (EMUs)** and the persistence of local populations throughout the geographic range of each species.”*



Eagle Act Overview – Preservation Standard

Local Area Population

Bald Eagle LAP:

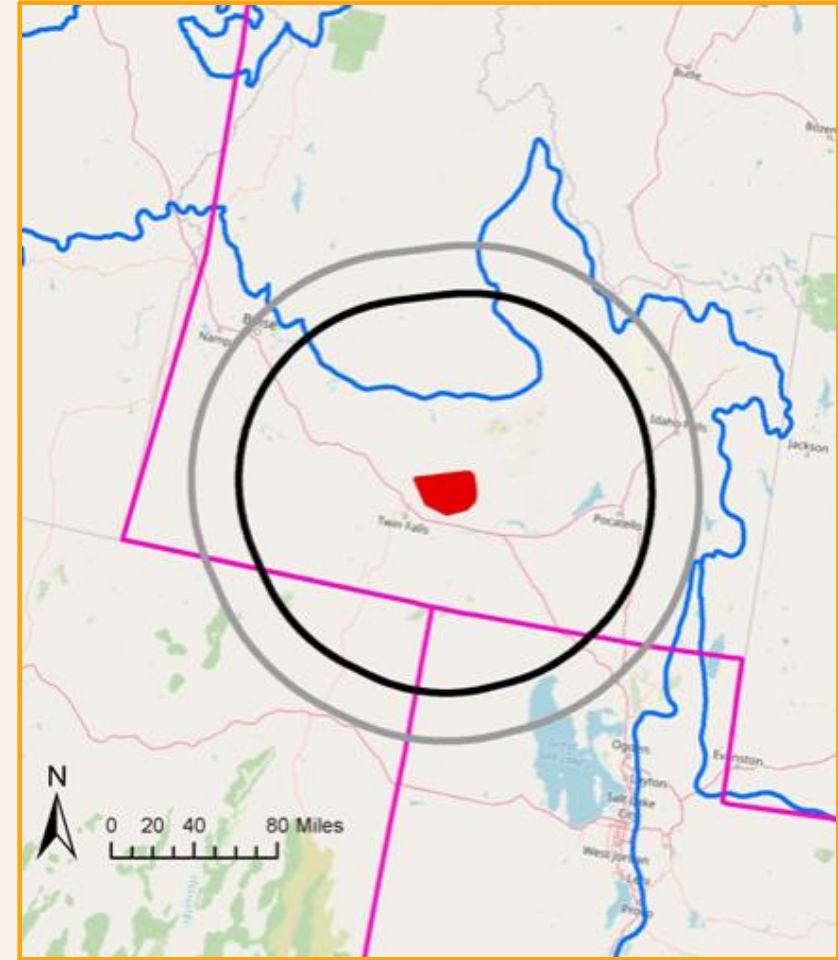
86 mile radius around project footprint

Golden Eagle LAP:

109 mile radius around project footprint

Permitted take <5%*

*Regardless of whether take is part of baseline



Eagle Act - Permits

- Permits are available for intentional and incidental take of eagles.
- Permittees must avoid and minimize take to the extent practicable.
- Take must be consistent with **No Net Loss**.
Unmitigated thresholds:
 - Bald eagle – 6% of population (3.8% in SW)
 - Golden eagle – 0% of population
- Take that exceeds allowable EMU limits requires compensatory mitigation
- Under some circumstances, additional mitigation may be required for take that exceeds local-area-population take limits

**No Net Loss under Eagle Act:
The Service can only authorize take of eagles that is consistent with the Preservation Standard.**



Compensatory Mitigation

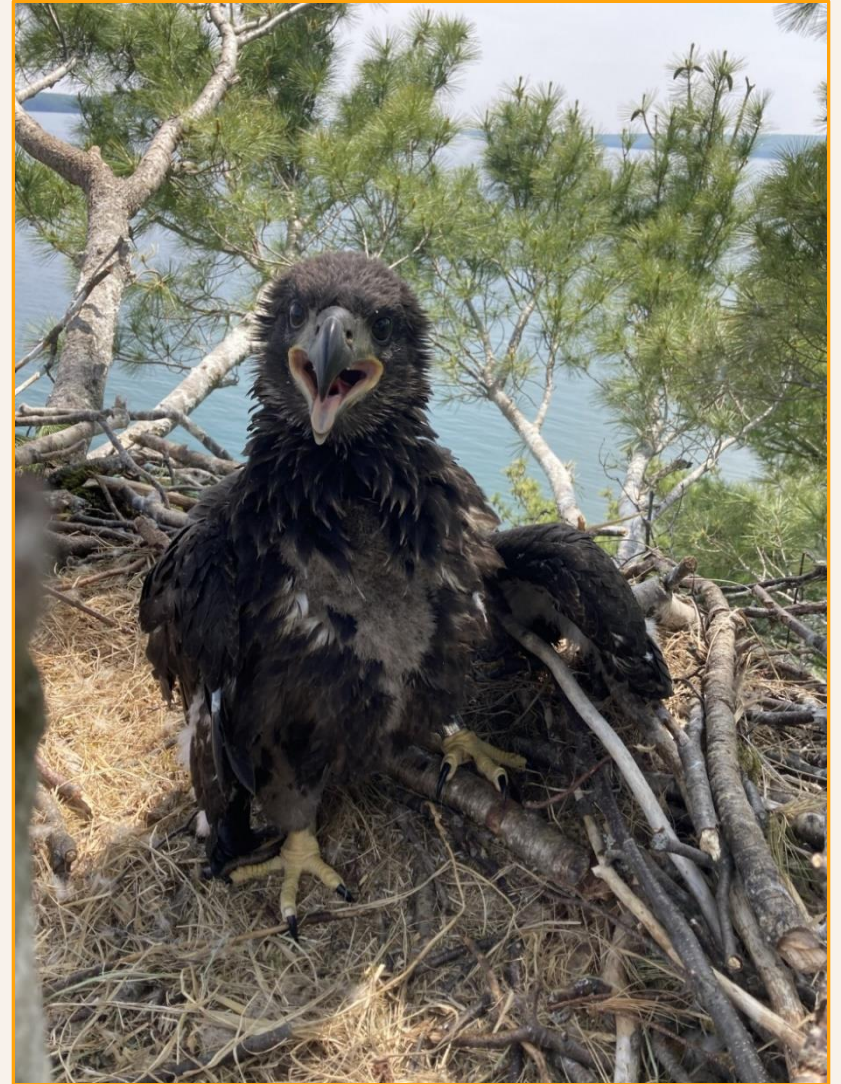
- Compensatory mitigation is required to offset eagle take at a minimum ratio of 1:1 for bald eagles and 1.2:1 for golden eagles for take that exceeds EMU take limits and is not consistent with Preservation Standard.
- Offset is for individual birds taken – for every 1 golden eagle, must offset with 1.2 golden eagles.
- Activities that may require compensatory mitigation:
 - Take of eagles at wind energy generation facilities
 - Loss of breeding territory
 - Take of golden eagle nest
 - Loss of foraging habitat resulting in reduced productivity or fitness.



Compensatory Mitigation MUST

- Be determined **after** avoidance and minimization applied
- Be sited within the same EMU
- Have been derived (and effectiveness determined) using the best available science
- Be **additional** and improve upon the baseline conditions of the affected species
- Be durable and maintain intended purpose for as long as impacts of the authorized take persist
- Include mechanisms to account for and address uncertainty and risk of failure.

50 CFR 22.220



How to Compensate for Eagle Take

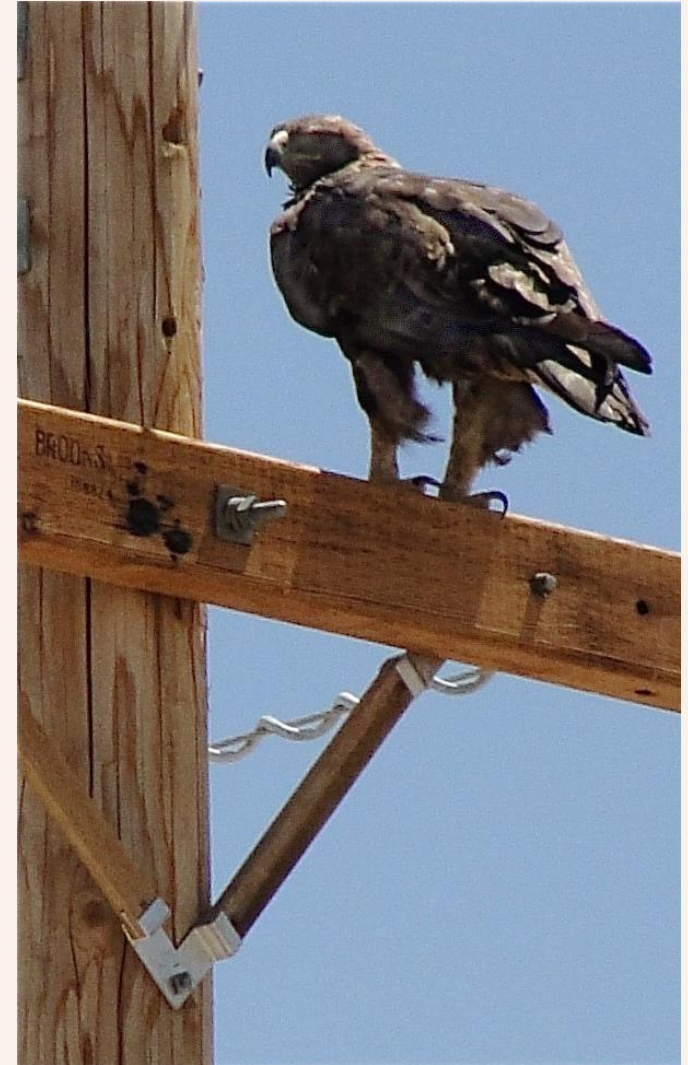


- Permittee-responsible
- In-lieu fee program
 - Two authorized
- Conservation banks
 - None established for eagles



In-Lieu Fee Programs

- Authorized by the Service through legal instrument to complete compensatory mitigation
- Must describe how standards in 50 CFR 22.220(b) will be met:
 - Description of mitigation program, including methods and geographies
 - How site are selected and how risk is determined
 - Description of how debits are sold and in what units
 - Financial assurances
 - Effectiveness monitoring
- ILF programs required to complete yearly reporting.



Methods for Compensating for Eagle Take

Quantifiable methods:

- Utility pole retrofits
 - Reducing risk of electrocution
- Lead abatement*
 - Reducing risk of lead poisoning
- Roadside carcass removal*
 - Reducing risk of traffic collisions

Others

- Rehabilitation?
- Nest parasite treatment?
- Curtail illegal shooting?
- Others?



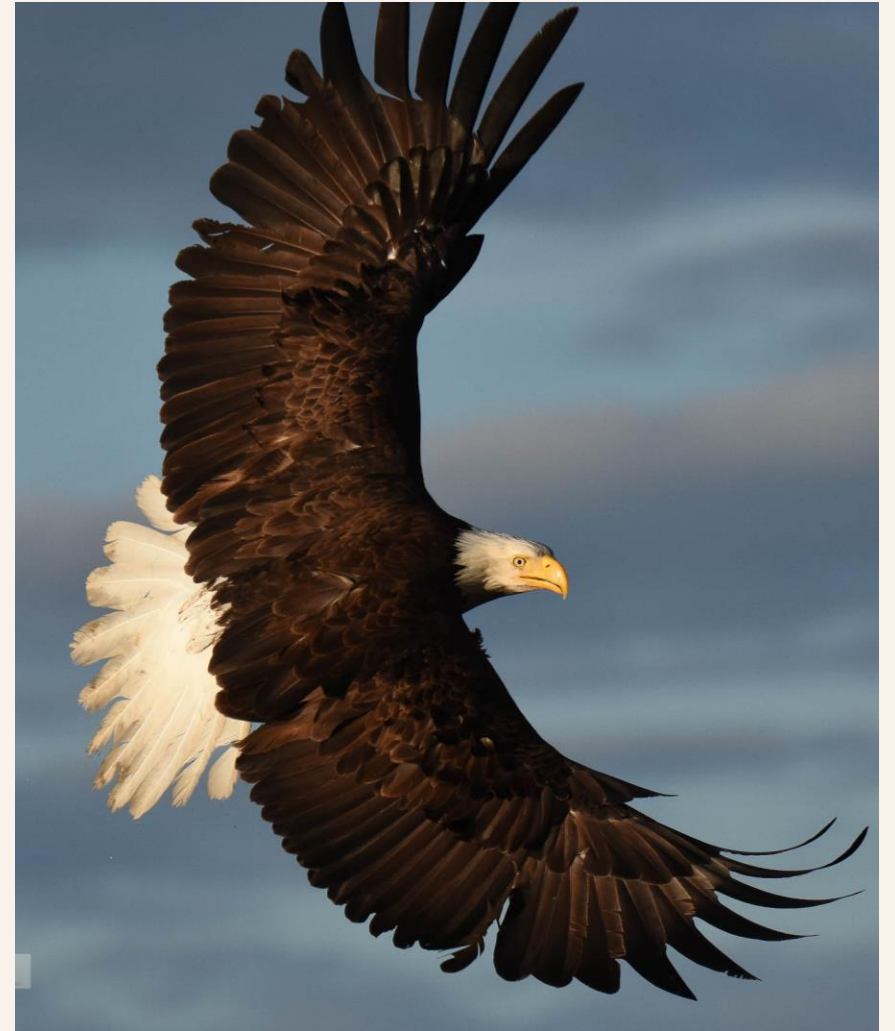
Photo Credit: Hawkwatch International

*models published and proposals in review by the Service



Determining Required Compensatory Mitigation

- The Service estimates take resulting from activity –
 - ex. Collision Risk Model for wind energy facilities
- Provides number of eagles that will need to be offset for compensatory mitigation
- Based on best available science, surveys, population estimates, etc.



Compensatory Mitigation Tool – Wind Energy

- For updated regulations – wind applicants for general permits can calculate their compensatory mitigation requirement
- Based on the hazardous volume of the project and Eagle Management Unit
- Output is number of eagle credits required for mitigation.

Manual Input Upload data file

Number of turbines

Turbine diameter

Units for turbine diameter

meters

feet

Eagle Management Unit (EMU)

Atlantic/Mississippi

Central

Pacific

The Atlantic EMU is CT, DE, FL, GA, MA, MD, ME, NH, NJ, NY, NC, PA, RI, SC, VA, VT, and WV.

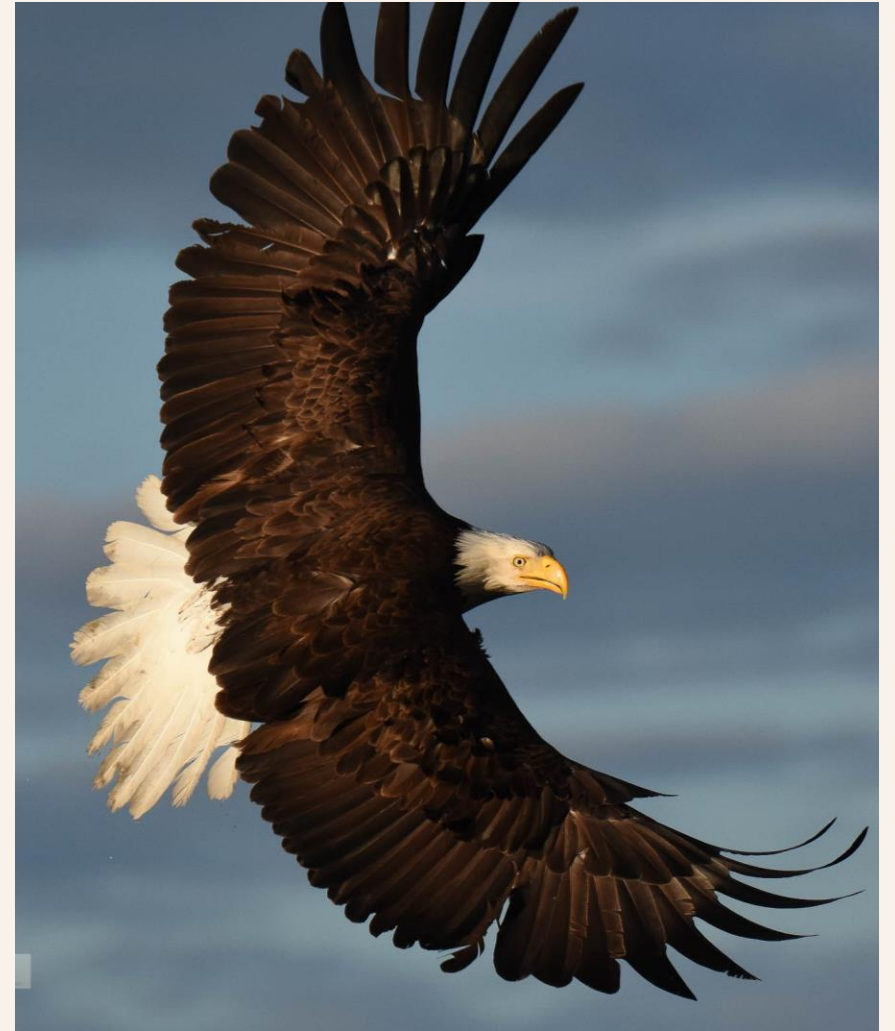
The Mississippi EMU is AL, AR, IL, IN, IA, KY, LA, MI, MN, MO, MS, OH, TN, and WI.

The Central EMU is KS, ND, NE, NM, OK, SD, and TX; portions of



Resource Equivalency Analysis - Eagles

- Service-developed REA to calculate compensatory mitigation requirements for take.
- Calculates present-value bird years based on life history of eagles
- REA requires input of eagle credits/fatality estimate.
- Allows for customization based on demographics of affected population, lifespan of mitigation and life history.
- Can be updated to use Service-approved mitigation where we can be confident in calculations showing unit of mitigation will offset “unit” of eagles.



Resource Equivalency Analysis – Eagles

30-Year Permitted Take

Credit Owed for a 30-Year Permitted Take of GOEA (assuming 5 years of avoided loss from retrofitted poles)		
Total Debit	102.26	PV Bird-Years
+ Relative Productivity of Lethal Electric Pole Retrofitting	0.086	Avoided loss of PV bird-years/pole
= Credit owed (1:1 ratio)	1188.80	Poles to be retrofitted to achieve no net loss of GOEA
= Credit owed (1:1.2 ratio)	1426.56	Poles to be retrofitted to achieve a net increase of GOEA

Credit Owed for a 30-Year Permitted Take of GOEA (assuming 10 years of avoided loss from retrofitted poles)		
Total Debit	102.26	PV Bird-Years
+ Relative Productivity of Lethal Electric Pole Retrofitting	0.160	Avoided loss of PV bird-years/pole
= Credit owed (1:1 ratio)	638.25	Poles to be retrofitted to achieve no net loss of GOEA
= Credit owed (1:1.2 ratio)	765.90	Poles to be retrofitted to achieve a net increase of GOEA

Credit Owed for a 30-Year Permitted Take of GOEA (assuming 30 years of avoided loss from retrofitted poles)		
Total Debit	102.26	PV Bird-Years
+ Relative Productivity of Lethal Electric Pole Retrofitting	0.368	Avoided loss of PV bird-years/pole
= Credit owed (1:1 ratio)	277.78	Poles to be retrofitted to achieve no net loss of GOEA
= Credit owed (1:1.2 ratio)	333.33	Poles to be retrofitted to achieve a net increase of GOEA

Credit Owed for a 30-Year Permitted Take of GOEA (assuming 5 years of avoided loss from retrofitted poles)		
Total Debit	206.31	PV Bird-Years
+ Relative Productivity of Lethal Electric Pole Retrofitting	0.174	Avoided loss of PV bird-years/pole
= Credit owed (1:1 ratio)	1188.80	Poles to be retrofitted to achieve no net loss of GOEA
= Credit owed (1:1.2 ratio)	1426.56	Poles to be retrofitted to achieve a net increase of GOEA

Credit Owed for a 30-Year Permitted Take of GOEA (assuming 10 years of avoided loss from retrofitted poles)		
Total Debit	206.31	PV Bird-Years
+ Relative Productivity of Lethal Electric Pole Retrofitting	0.323	Avoided loss of PV bird-years/pole
= Credit owed (1:1 ratio)	638.25	Poles to be retrofitted to achieve no net loss of GOEA
= Credit owed (1:1.2 ratio)	765.90	Poles to be retrofitted to achieve a net increase of GOEA

Credit Owed for a 30-Year Permitted Take of GOEA (assuming 30 years of avoided loss from retrofitted poles)		
Total Debit	206.31	PV Bird-Years
+ Relative Productivity of Lethal Electric Pole Retrofitting	0.743	Avoided loss of PV bird-years/pole
= Credit owed (1:1 ratio)	277.78	Poles to be retrofitted to achieve no net loss of GOEA
= Credit owed (1:1.2 ratio)	333.33	Poles to be retrofitted to achieve a net increase of GOEA

Note: These two results are and should be the same because a directly proportional avoided loss project was selected. Refer to the Technical Note on Avoided Loss Projects



2024 Eagle Act Revisions – What’s New?

New: Compensatory Mitigation standards moved to a new section (50 CFR 22.220)

- Clarifies when compensatory mitigation is required.
- Confirms geographic scale in which mitigation must be implemented
- Describes requirements for compensatory mitigation implementation
- How to become an authorized compensatory mitigation provider.

New: Permit Types

- **General Permits** - For activities with lower-risk to eagles and well-established avoidance, minimization. Set eligibility standards.
- **Specific Permits** – Available for activities that have high or uncertain risk to eagles or requires additional permit customization. . Service reviews applicant-prepared application.



Questions?

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