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June 7, 2022

### **MEMORANDUM**

**TO:** Fish and Wildlife Committee Members

**FROM:** Mark Fritsch

**SUBJECT:** Using falconry to control avian predation in the Columbia River Basin

### **BACKGROUND:**

**Presenter:** Blaine Parker from the Columbia River Intertribal Fish Commission and Alina Blankenship from [Sky Guardian](#)

**Summary:** Blaine and Alina will provide general background on how falconry works; various birds of prey used in falconry; details on this year's field efforts; and how falconry can be an effective avian predation management tool to provide greater protection for out-migrating juvenile anadromous fish.

**Relevance:** One of the Council's emerging priorities from the 2014 Fish and Wildlife Program addresses "preserving program effectiveness" by supporting expanded management of predators.

**Workplan:** Fish and Wildlife Division preliminary work plan 2022; Program Implementation; H. Pursue implementation of 2014 Program and 2020 Program Addendum, including Council Program priorities.

**Background:** The sport of falconry uses birds of prey as hunting tools and was developed thousands of years ago in the Middle East and Central Asia. Today, modern falconers use a variety of falcons, hawks, and even eagles to hunt upland game birds, waterfowl, and a variety of mammals. Some

falconers also use their skills and birds to provide federally licensed abatement services for a variety of interests ranging from farms, public works departments, and municipalities besieged by nuisance birds that affect crops, spread disease from landfills and on public streets, threaten airport safety from bird/aircraft collisions, and damage private property.

Currently in the Columbia Basin, hazing of piscivorous waterbirds that prey on juvenile salmonids involves noisemakers, pyrotechnics, fencing, bird wires, propane cannons, and even lasers. However, in nearly all situations, such techniques invariably lead to acclimation and acceptance by avian predators, a resumption of the predation problem, and immense frustration by fish managers and others, unless such hazing is regularly enforced with lethal take. Lethal take is an extreme measure and requires the approval of the United States Fish and Wildlife Service after a lengthy review and permitting process, and in some cases may not be authorized.

Earlier this spring, the Yakama Nation (YN) contracted with professional falconers in a pilot project to work in concert with YN fisheries staff who supplemented the falconry effort with standard hazing techniques, particularly at night, to successfully delay nesting of the Miller Rocks gull colony by several weeks. Similarly, this year, the Army Corps of Engineers at The Dalles Dam contracted *Sky Guardian* to develop the efficacy of falconry as an innovative tool to reduce avian predation and enhance the static deterrents of bird wires, propane cannons, and boat-based hazing. The intent of falconry at the project is to develop an additional layer of protection against predation from gulls, double crested cormorants, herons, and other birds.

Using falconry as an innovative new technique to control avian predation in the Columbia River Basin is showing promise, utilizing the inherent relationship between falcons and their prey.

More Info:

- [Video](#) of bird abatement using falcons at winery
- [Article from Oregon Wine Press](#), titled *Deep dive into the vineyard's winged worker*, September 1, 2021

# **Falconry as an innovative new technique to control avian predation in the Columbia River Basin**

**Blaine L. Parker**

**Columbia River Inter-Tribal Fish Commission**

**& Alina Blankenship**

**Sky Guardian Falconry**

**Northwest Power and Conservation Council**

**June 14, 2022**

*Columbia River Inter-Tribal Fish Commission*



# Today's Presentation

- Falconry, an Ancient Sport
- The “Cast”
- Falconry Principles
- Abatement-Why Falcons are Effective
- Application at Hydro Projects-Why now?
- Falconry’s Potential for Avian Predation Control
- Miller Rocks Dissuasion 2022
- The Dalles Dam 2021 and 2022 Efforts
- Keys to Success
- Questions





# Falconry Historical Perspective

- Originated in middle East and western Asia
- Developed thousands of years ago
- Sport of Kings, European class system dictated bird to person (i.e. Kings used Eagles, Lords used Peregrines, etc.)
- Sport as well as hunting for food
- US Falconry began in early 1930's
- Several thousand practicing Falconers in US today





# The “Cast”

- **Falcons** – Peregrines, Gyrs, Sakers, hybrids, Prairie’s, many others
- **Hawks**- Buteos (Red tails, Ferruginous, Swainsons) & Accipiter's (Goshawks, Coopers, Sharp-shinned)
- **Harris’ Hawk**
- **Eagles**
- **Owls**



# How Falconry Works...

- Rewards (i.e. Raw Meat!) for positive behaviors
- Builds on natural behaviors
- No reward for other behaviors
- Lots of Patience & Consistency
- Training is a incremental process



# Abatement – Why Falcons are Effective

- **Abatement-** the ending, reduction, or lessening of something
- Falconry often used after conventional means/tools proven ineffective
- Conventional means include netting, physical barriers, static predator figures (i.e. plastic owl, coyote silhouettes), sounds, lasers, pyrotechnics, etc.
- Birds quickly adapt, particularly without lethal re-enforcement
- Falconry is dynamic, never static, and lethality is always a possibility, adaptation difficult at best



# Application at Hydro Projects- Why now?

- Current tools (i.e. bird wires, sprinklers, propane cannons, pyrotechnics) been in use for decades, losses to avian predators still significant
- Very expensive (i.e. 18 million for JD bird wires)
- Protection is seasonal for smolts ~ 4 months for the spring outmigration
- Lethal take improves effectiveness, controversial and restricted by USFWS



# Falconry's Potential for Avian Predation Control

- Falcons are predators
- Nothing is static or predictable
- No permanent infrastructure
- Doesn't cost millions
- Portable and adaptable
- Lethal take rarely occurs
- Effectiveness increases over successive years



# Miller Rocks Dissuasion 2022

- Yakama Nation contracted with falconers with Integrated Avian Solutions on a unique pilot project.
- Combined use of falconry, propane cannons, pyrotechnics, and lasers delayed gulls from nesting from March 30 – May 2nd
- Gulls re-populated the site and began nesting, a couple more weeks were necessary for total abandonment.
- This effort will serve as a valuable effort in future control measures at Miller Rocks.



# The Dalles Dam 2021 and 2022 Efforts

- Trial effort in summer of 2021 (Integrated Avian Solutions)
- First effort using falconry in PNW to haze avian predators from salmon smolts
- Paved way for more intensive 2022 effort (Sky Guardians)
- Highly complex and dangerous site for falcons and hawks
- Normal working environment are berry fields & vineyards
- Birds and handlers rising to the challenge!



# Keys to Success

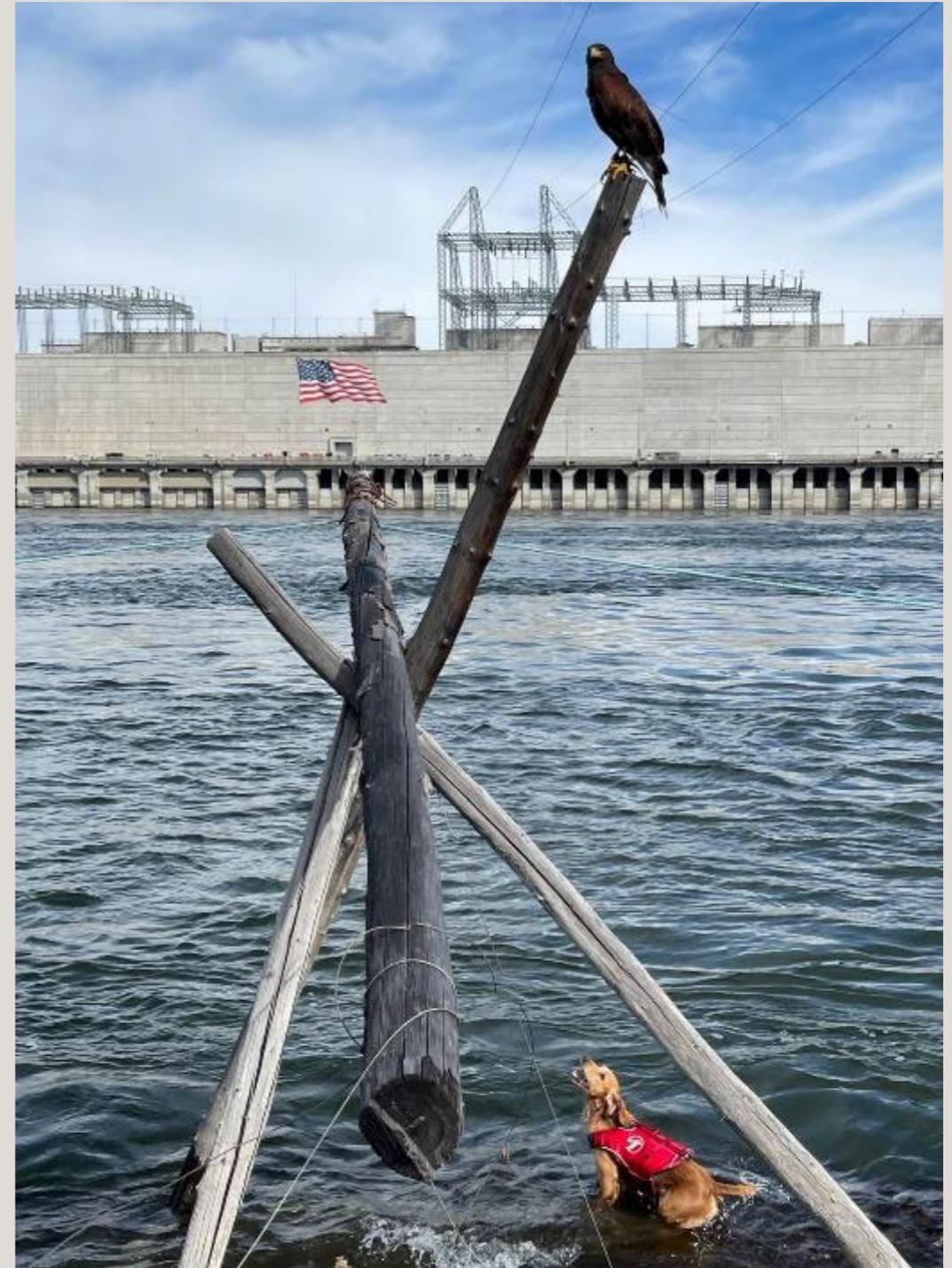
- Acclimation

- Familiarity
- Patience
- Persistence
- Time



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- Pacific Coastal Salmon Recovery Fund



# Questions

