Agenda Item 20

Cougar Hunting Seasons and Regulations

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Game Division, Wildlife Program

Washington Department of
FISH and WILDLIFE

Cougar Game Mgt. Plan Objectives

- Manage for a stable cougar population in each PMU
  - Implement a harvest guideline that corresponds to a stable cougar population at the PMU level
  - Implement a harvest guideline for a maximum harvest providing an overall stable growth rate and age structure

Current Season Structure

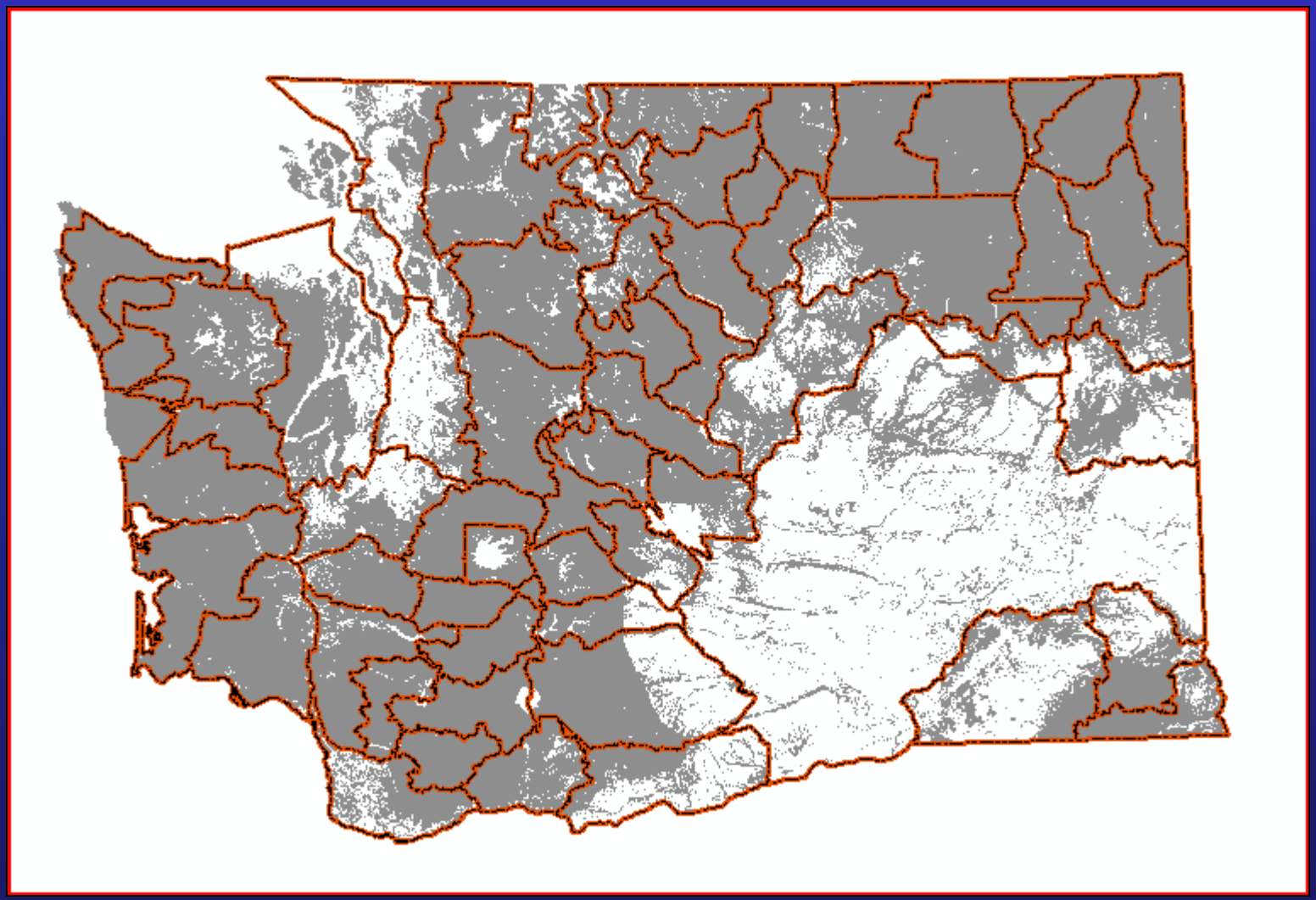
- Early season Sept 1 – Dec 31
- Late season Jan 1 – April 30
- Any legal weapon in both seasons
- Each hunt area (PMU) has a harvest guideline corresponding to 12-16% of cougar population (excluding kittens)
- Starting Jan 1, the Director may close hunt areas that meet or exceed the harvest guideline
- Only recreational harvest count towards the guidelines

Why Revisit Harvest Guidelines?

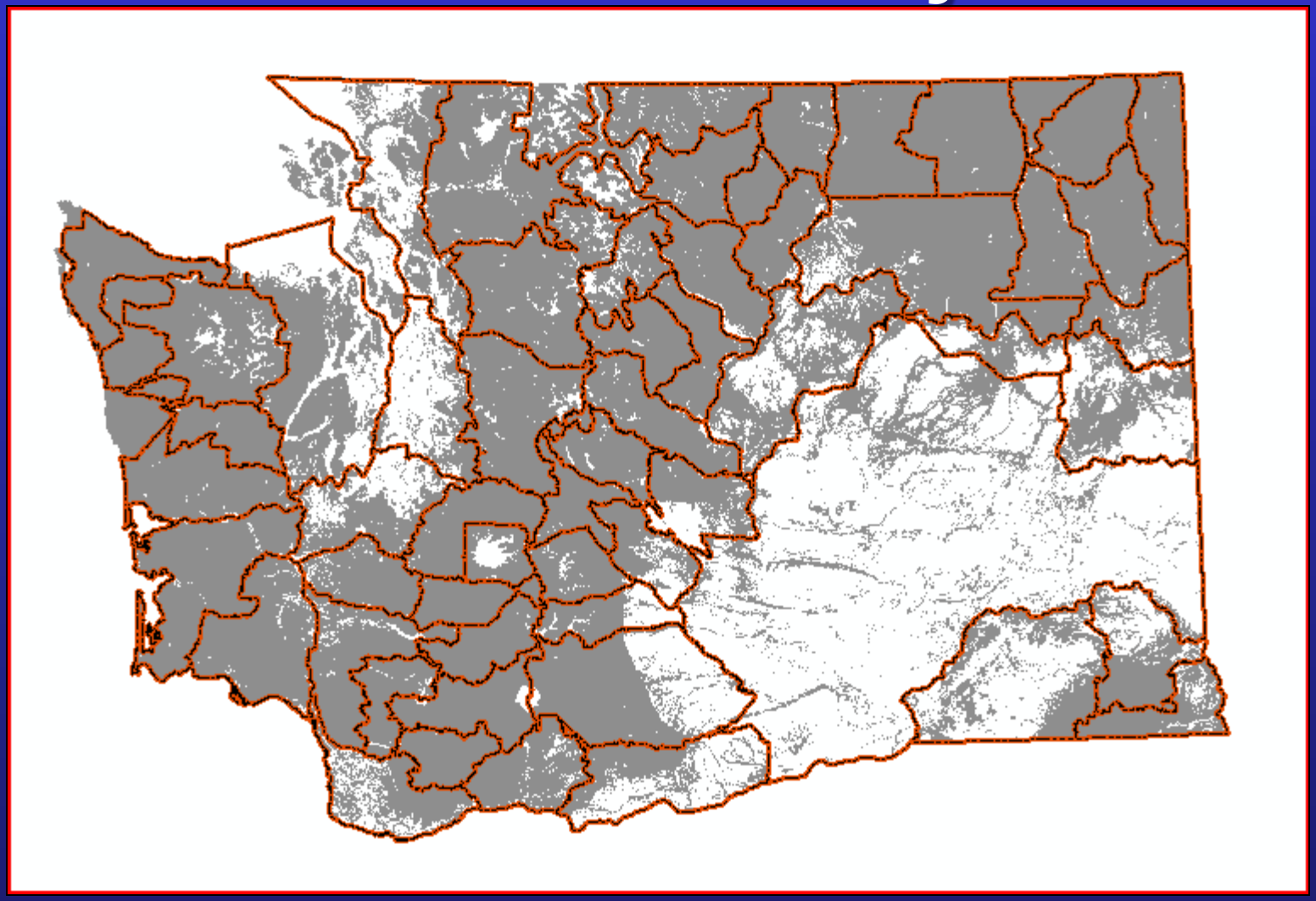
- Last year's recommendation was contested
- We recognize the need to incorporate uncertainty into our density estimate
- Provides opportunity for Commission to discuss options

Cougar Season Structure

50 Hunt Areas or PMUs

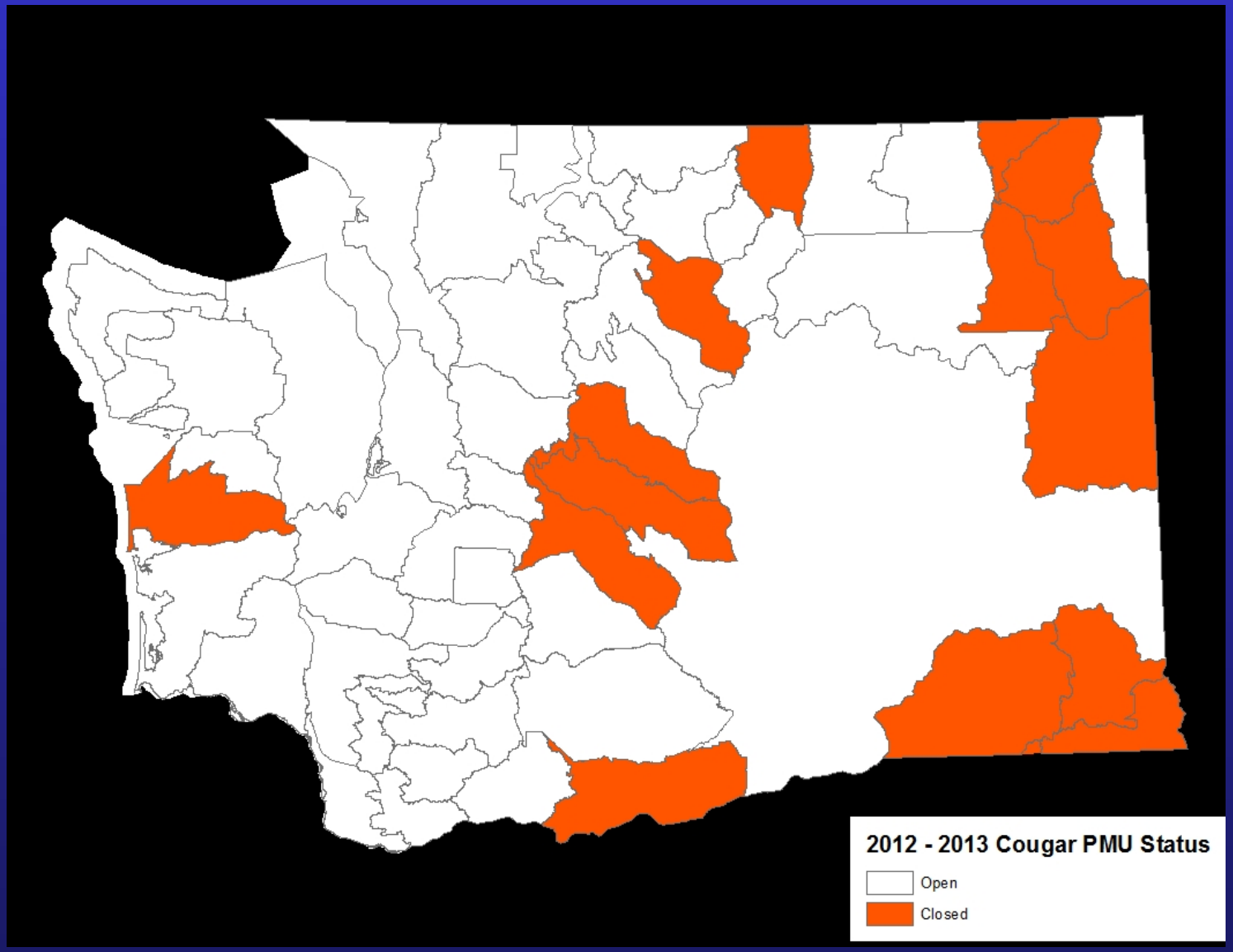


Harvest Guideline by PMU

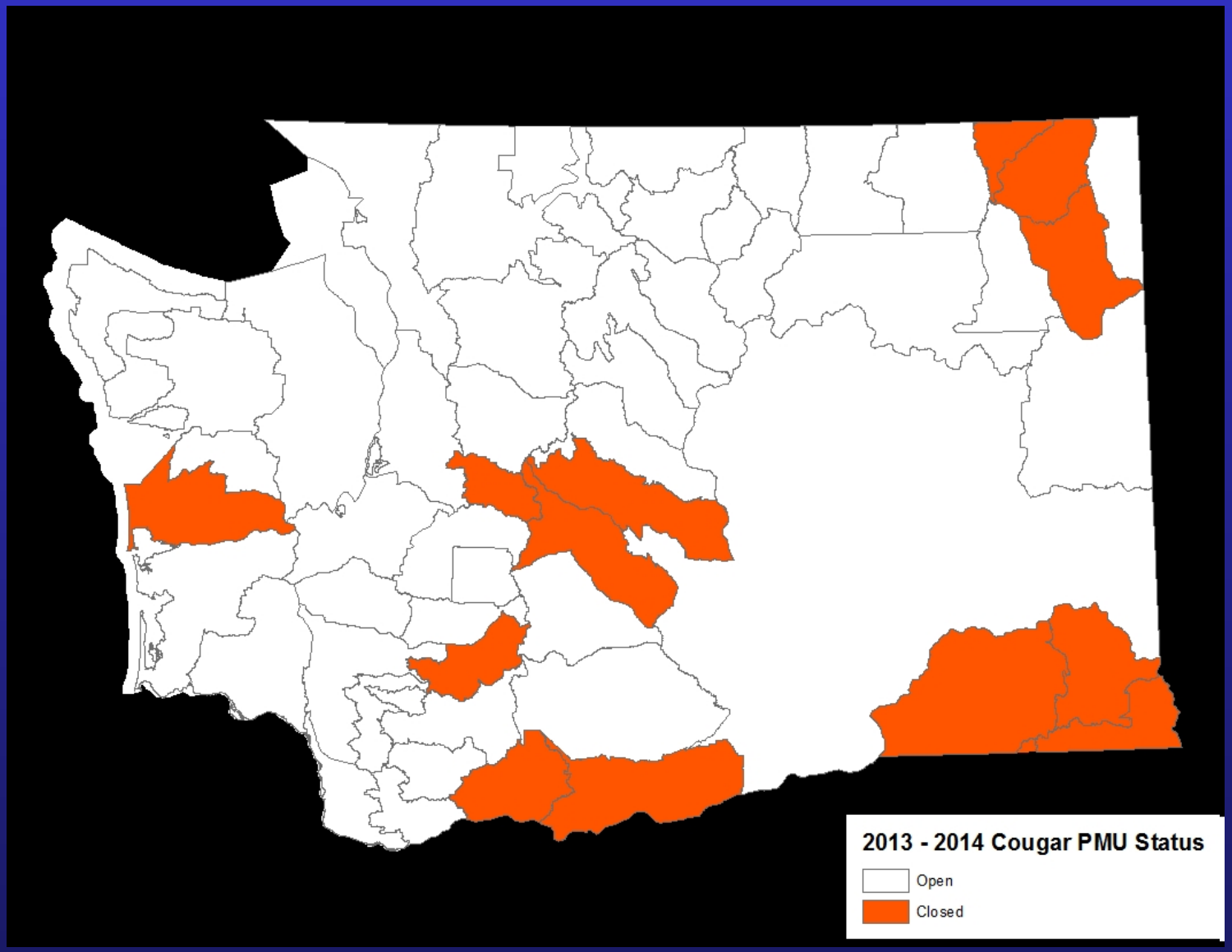


Density X Habitat = population est.
Population X 12-16% = Guidelines

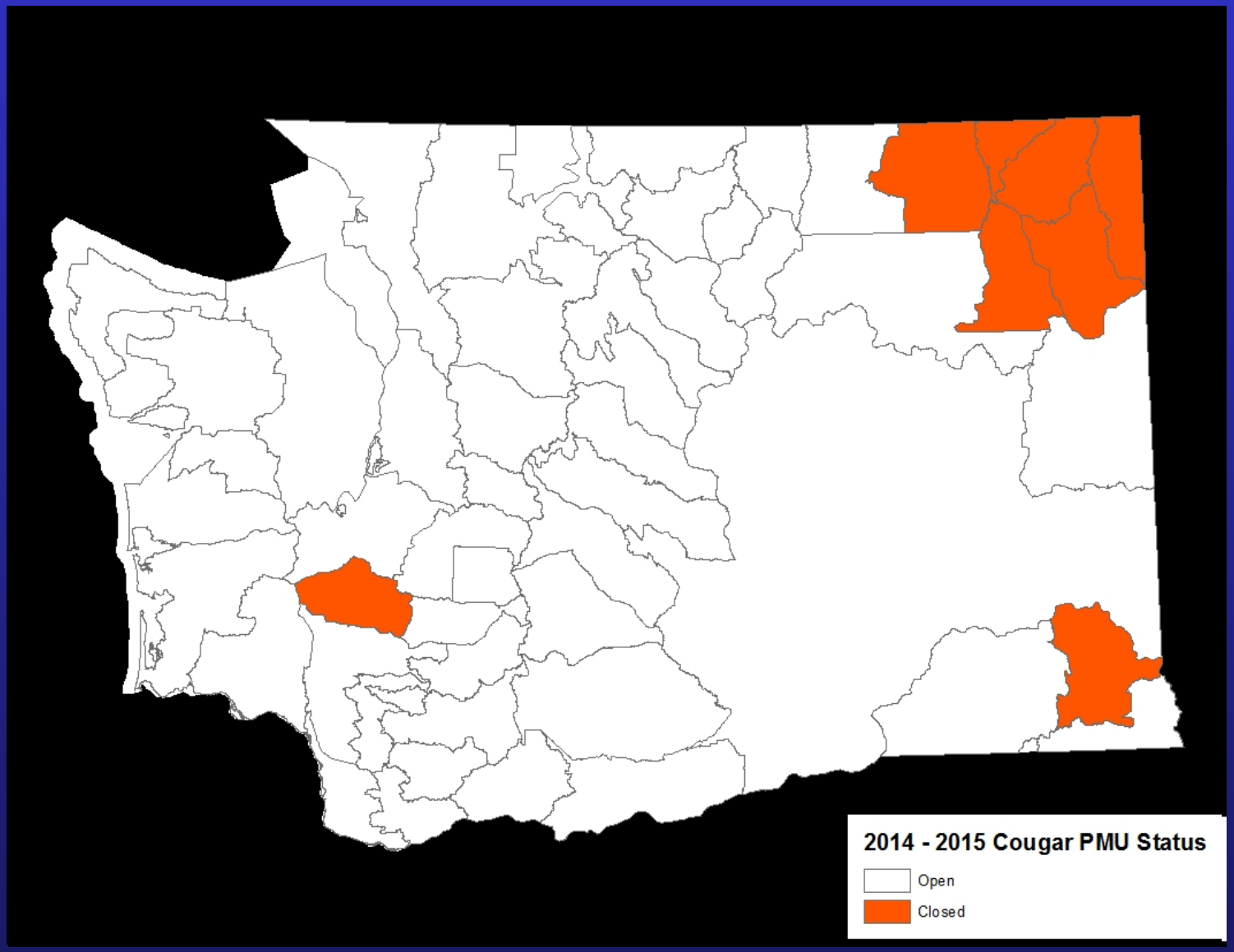
2012-13 PMU Closures 14



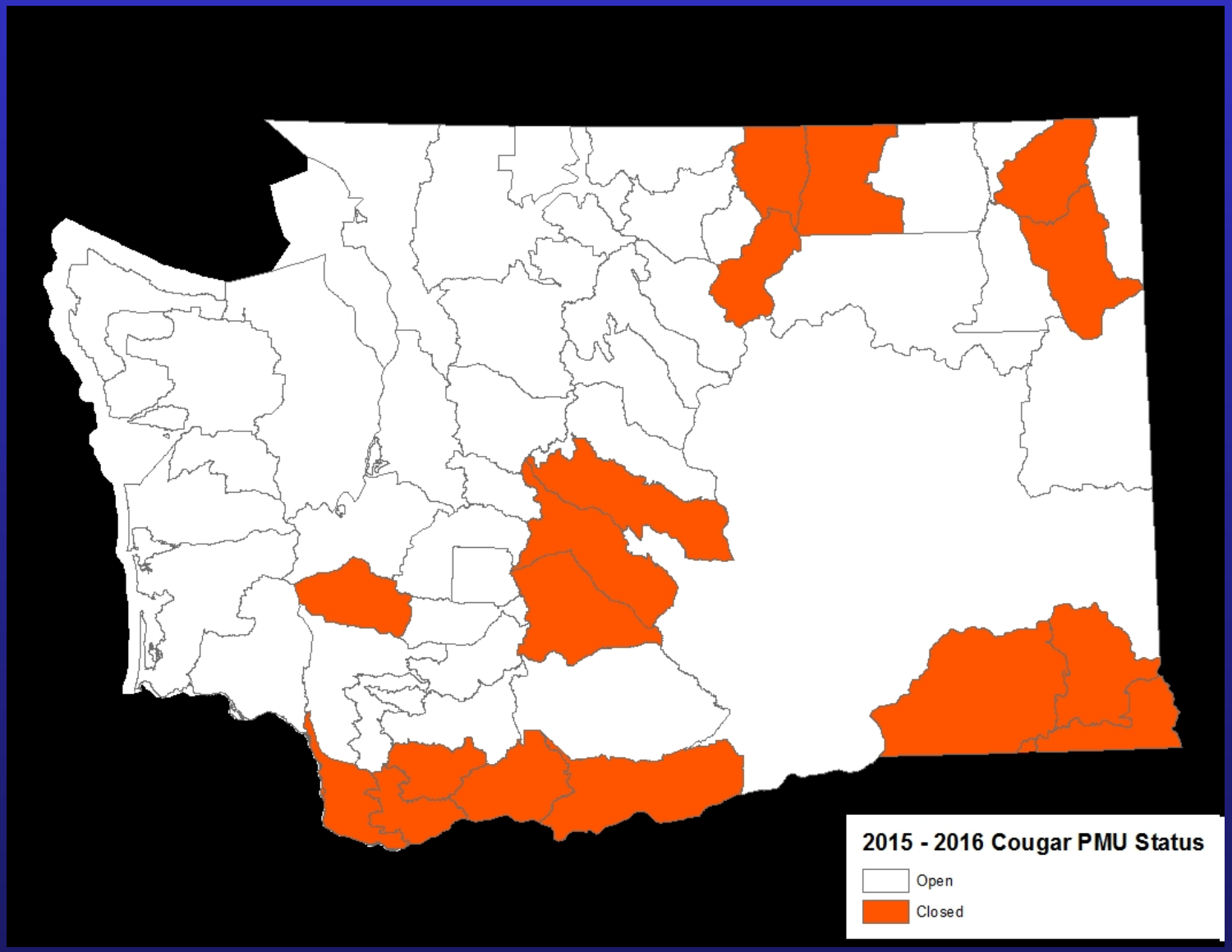
2013-14 PMU Closures 13



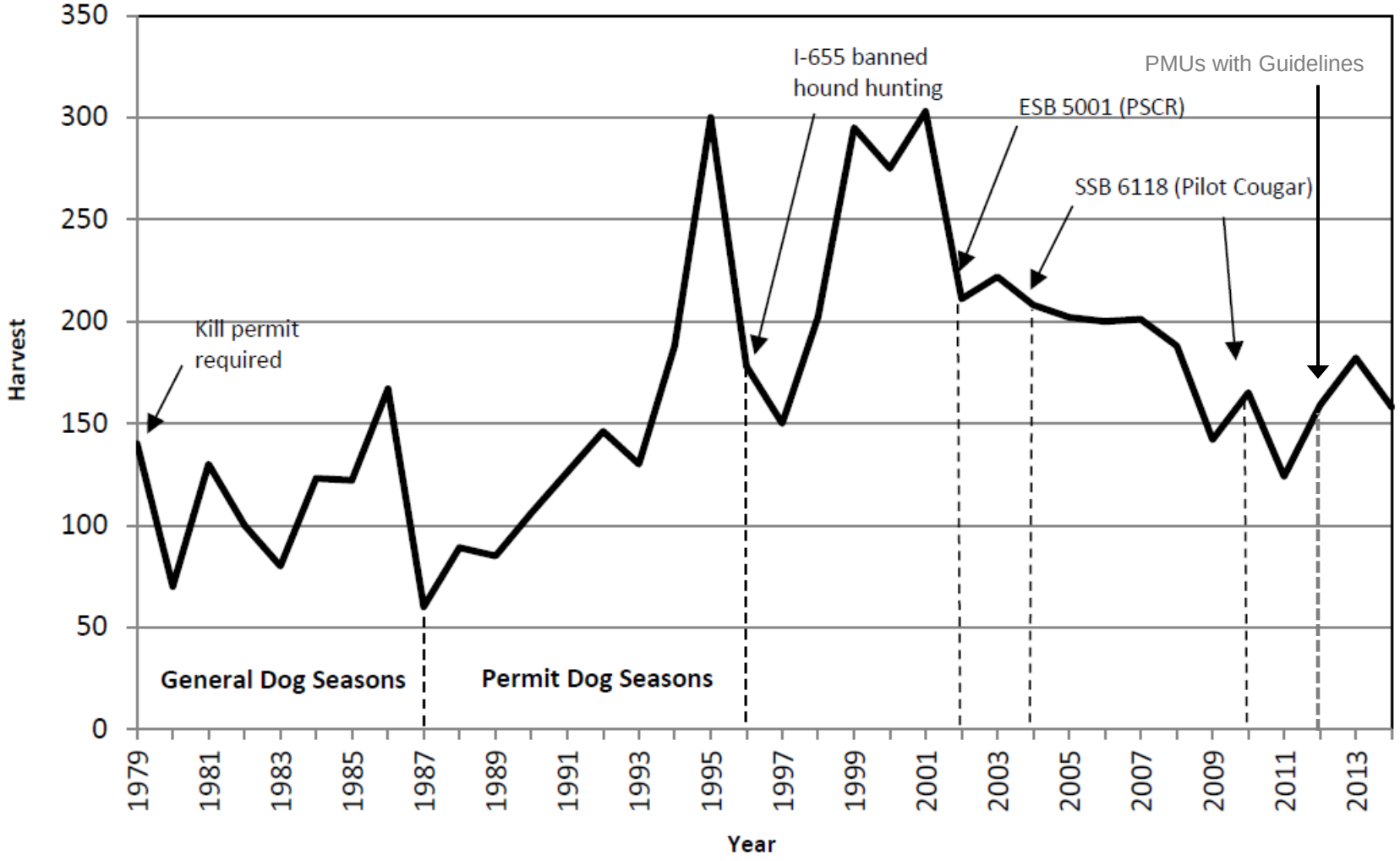
2014-15 PMU Closures 8



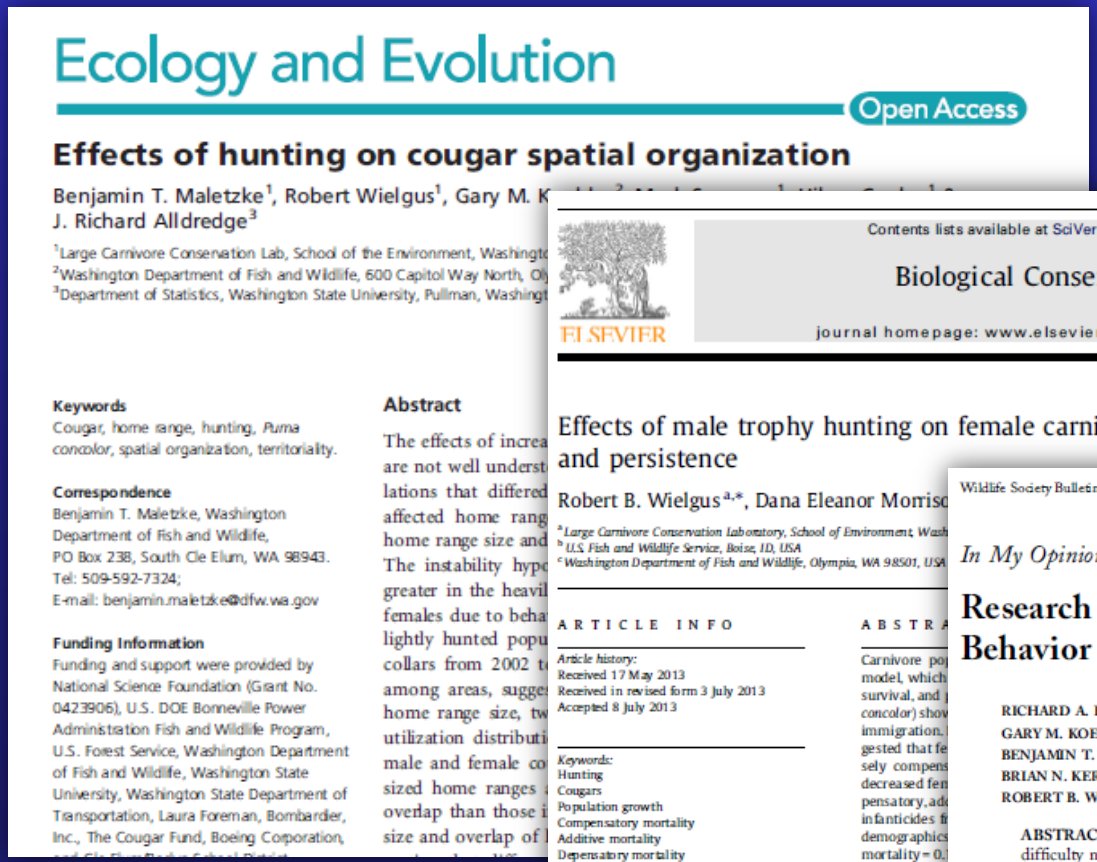
Current Season PMU Closures 17



Cougar Harvest Trend



Harvest Guidelines Based on Research



Ecology and Evolution

Open Access

Effects of hunting on cougar spatial organization

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Keywords
Cougar, home range, hunting, *Puma concolor*, spatial organization, territoriality.

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Abstract

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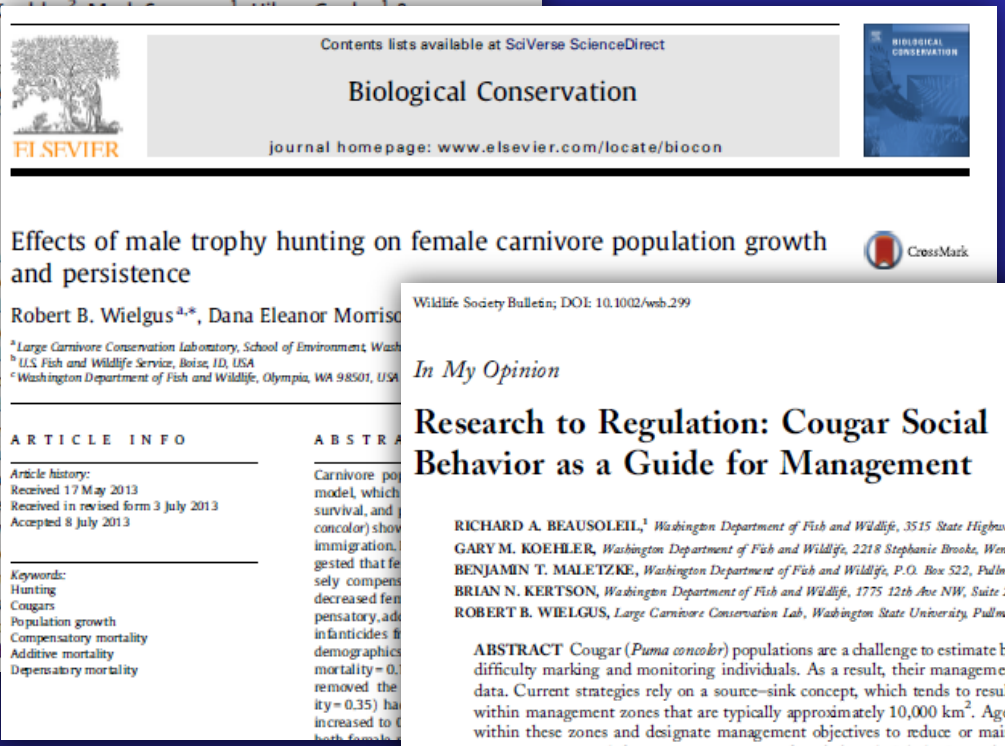

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Effects of male trophy hunting on female carnivore population growth and persistence

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In My Opinion

Research to Regulation: Cougar Social Behavior as a Guide for Management

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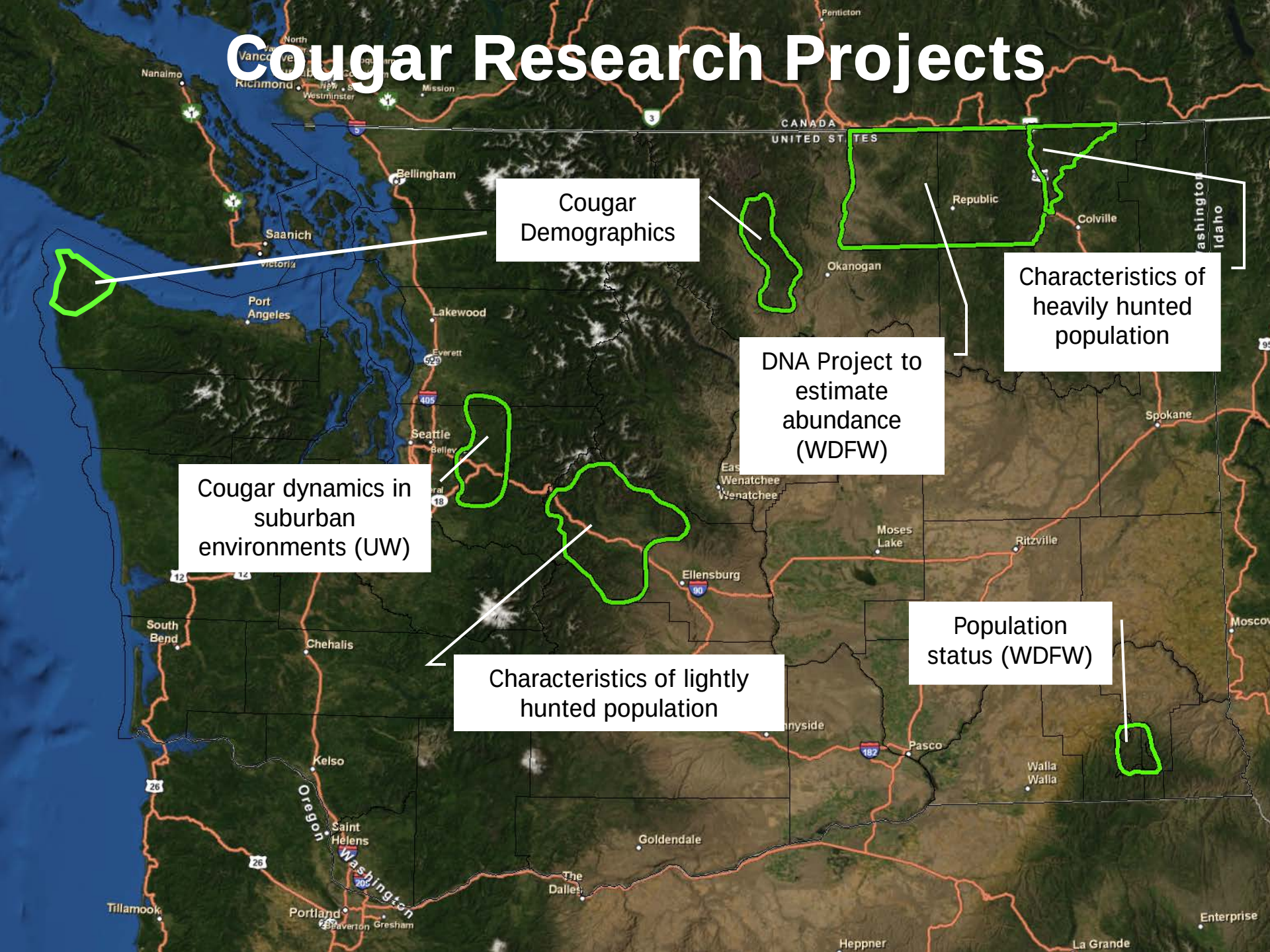
ABSTRACT Cougar (*Puma concolor*) populations are a challenge to estimate because of low densities and the difficulty marking and monitoring individuals. As a result, their management is often based on imperfect data. Current strategies rely on a source–sink concept, which tends to result in spatially clumped harvest within management zones that are typically approximately 10,000 km^2. Agencies often implement quotas within these zones and designate management objectives to reduce or maintain cougar populations. We propose an approach for cougar management founded on their behavior and social organization, designed to maintain an older age structure that should promote population stability. To achieve these objectives, hunter harvest would be administered within zones approximately 1,000 km^2 in size to distribute harvest more evenly across the landscape. We also propose replacing the term "quota" with "harvest threshold" because quotas often connote a harvest target or goal rather than a threshold not to exceed. In Washington, USA,

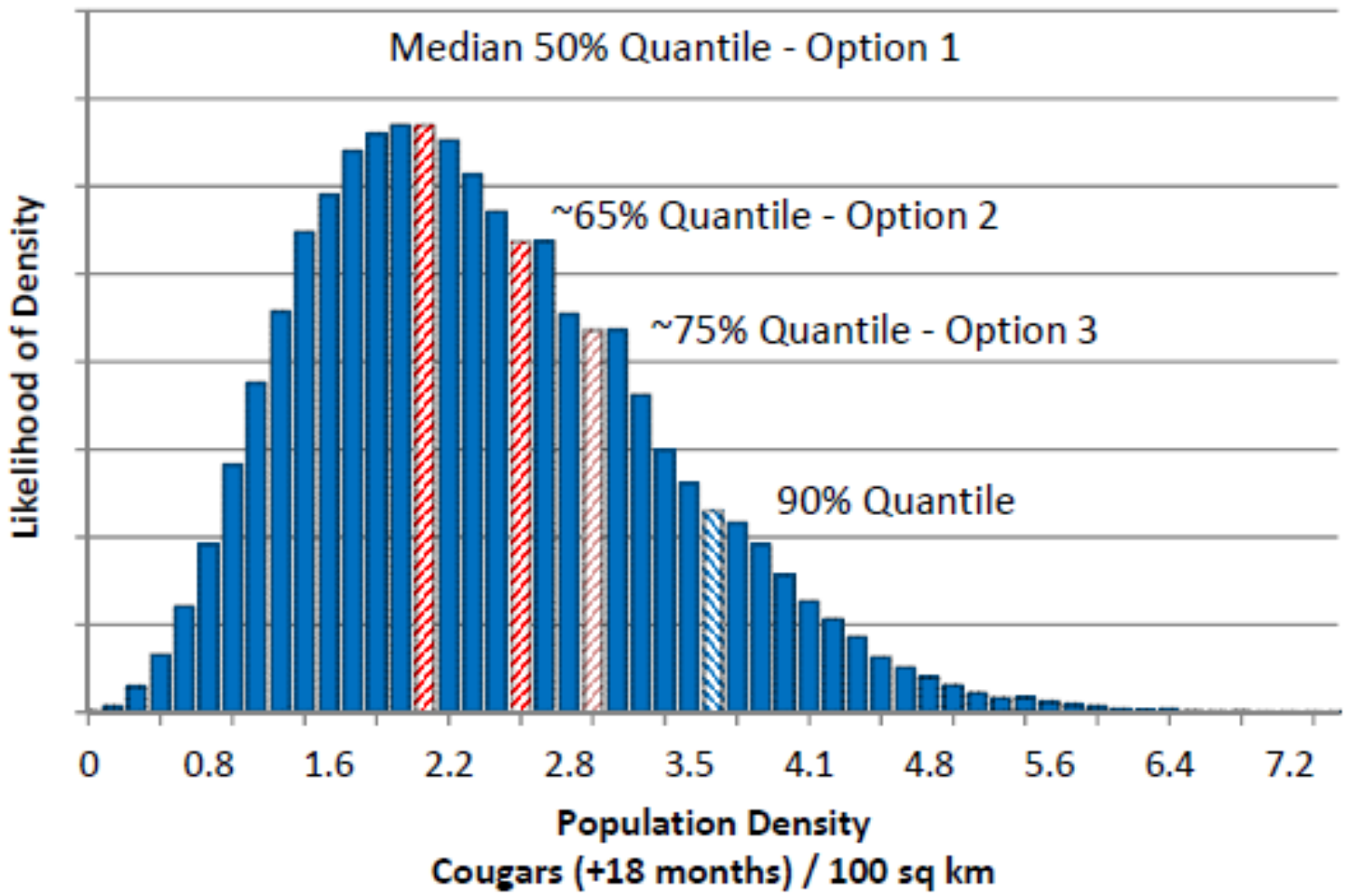
Cougar Research Projects



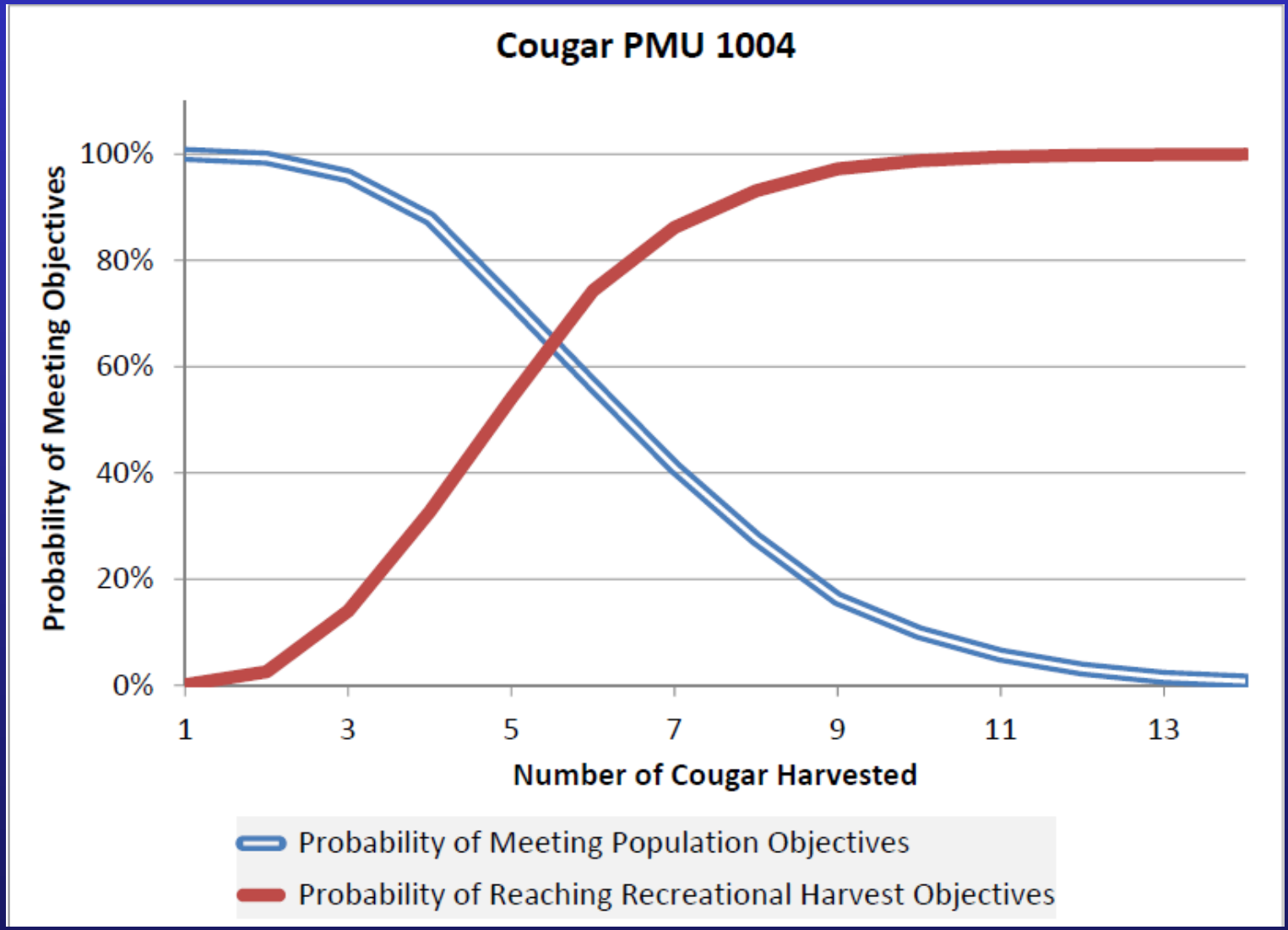
Vital Information Learned

- We can safely harvest cougar at approximately 14%
- Cougar density varies slightly across the state with a median of about 2.2 cougars/100 km^2 (not including Kittens)

New Approach Incorporating Uncertainty



Harvest Guideline
Risk Assessment for Each PMU



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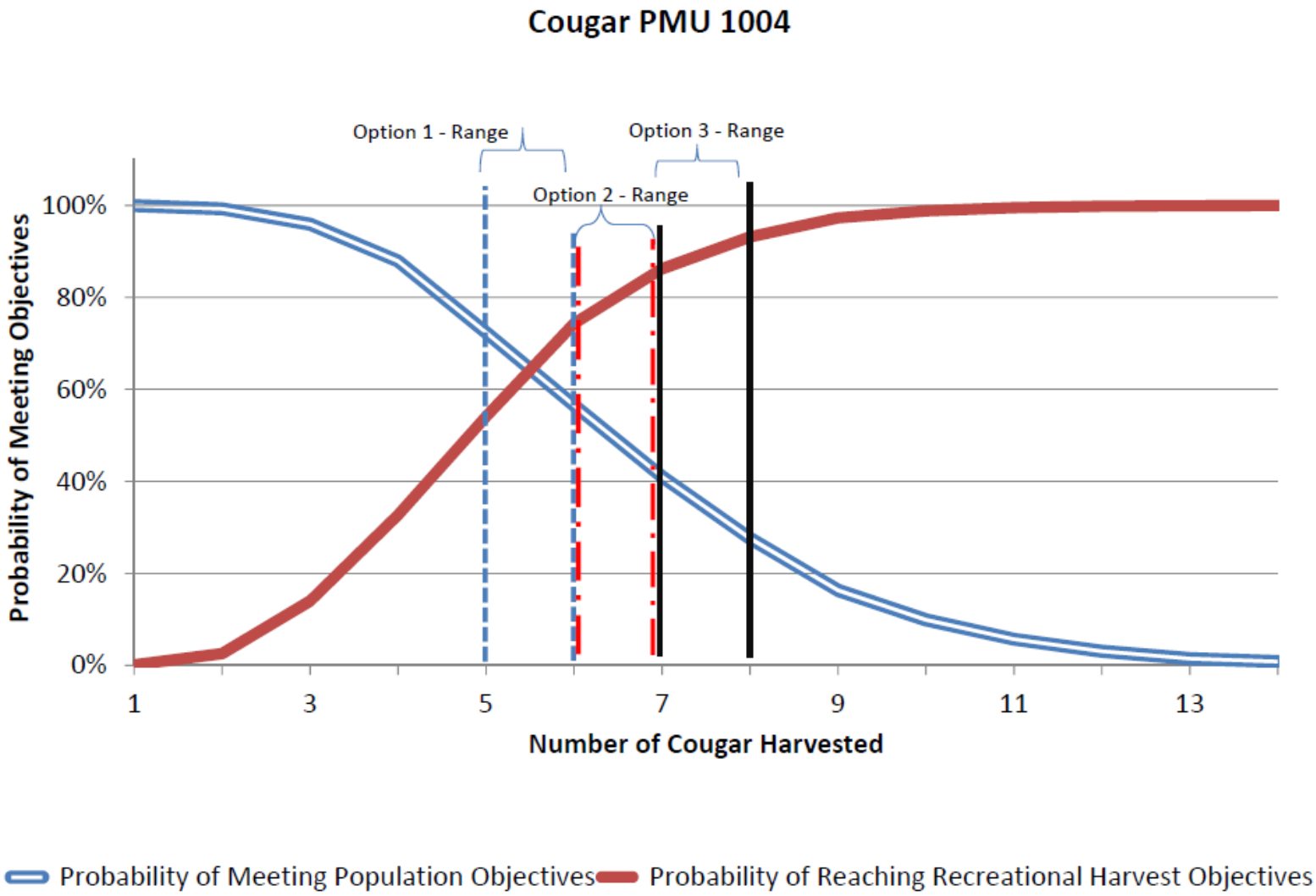

Recommendation

- No change in season dates – Sept. 1 – April 30 for all options

- Option 1: Set guidelines using 12-16% harvest rate based on a statewide density estimate approach that incorporates uncertainty (*Dept recommendation*)

- Option 2: Adding 1 cougar to Option 1 guideline per PMU

- Option 3: Adding 2 cougars to Option 1 guideline per PMU

Questions