Cougar Management and Public Safety Briefing

Eric Gardner – Wildlife Program Director
Anis Aoude – Game Division Manager
Mick Cope – Wildlife Program Deputy Director
Steve Bear – Enforcement Chief
Goal of Presentation

*Provide background on cougar management to inform scoping for cougar season setting and public safety*

**Presentation Road Map**

– Overview of issue
– Summary of Commission engagement
– Cougar Management
  • Cougar season framework within scope of Game Management Plan
  • Other States’ programs
– Public Safety Programs
Commission and Department Engagement

What we heard (March 1 & 2):

• Increased predator numbers
  – Public safety re: cougar interactions and department response
  – Impacts to ungulates and hunting opportunity

What we’ve done:

• March 5 – CR 101 black bear and cougar seasons and regulations
• March 15 - confirmed bear season timeline, intent to provide direction
• March 26 – Director’s memo re: public safety response
• April 4-6 – confirmed “off-cycle” cougar season/regulation process
• Oct. 18 – additional Commission scoping

Information is subject to changes and amendments over time.
Cougar Management

Anis Aoude
Game Population Management Framework

- **Game Management Plan (GMP)**
  - Overarching SEPA document
  - Goals, Objectives and Strategies for each Game species
  - Usually revised every 6 years
  - Current plan sunsets in 2021 (we are delaying revision until 2023)

- **Three year season setting process**
  - Rule making process to set hunting seasons for managing game species (guidance from GMP)
  - Annual adjustment to dates and permits are often made
GMP Cougar Goals

1. Preserve, protect, perpetuate, and manage cougar and their habitats to ensure healthy, productive populations.
3. Manage cougar for a variety of recreational, educational and aesthetic purposes including hunting, scientific study, cultural and ceremonial uses by Native Americans, wildlife viewing, and photography.
4. Manage statewide cougar populations for a sustained yield.
5. Improve our understanding of predator-prey relationships.
Cougar Game Management Plan Objectives for Recreational Hunting

- Manage for a stable cougar population in each PMU
- Provide recreational harvest opportunity at a 12-16% annual harvest rate of the cougar population, excluding kittens in each PMU
Cougar Science Informs Management

• There are currently two dominant theories
  – Resource limited population
  – Space or territory limited population

• Regardless to what theory you subscribe you need two main parameters to manage cougars
  – Density
  – Reproductive rate (population growth rate)
Washington Research Informs Management

• Research conducted in Washington helps us get a range of densities and population growth rates of cougars in Washington

• These two parameters are important when setting harvest guidelines regardless of harvest objective

• The growth rate parameter (12%-16%) is less variable than density parameter which can be tied to habitat quality and food abundance
Densities in 6 Washington studies (kittens not included)
Statewide Cougar Habitat
104,788 km$^2$ or 25.9 M acres

This translates to roughly 2,300 independent cougars and 3,350 cougars if we count kittens statewide.
Cougar Habitat managed by the state
91,099 km$^2$ or 22.5 M acres

This translates to roughly 2,000 independent cougars and 2,915 cougars if we count kittens statewide.
CURRENT MANAGEMENT FRAMEWORK

Manage for stable populations:
- Growth rate
- Density

Manage harvest within ecologically-based Population Management Unit:
- Limit harvest to 12% – 16% of independent animals:
  - Early Season September 1 – December 31
  - Late Season January 1 – April 30
- Units that meet or exceed the guideline can close on January 1
- Recreational harvest only - does not include agency removals
Cougar Season Structure
50 Hunt Areas or PMUs

Each PMU has a harvest guideline based on the amount of habitat
Population Estimate
And Harvest Guidelines

Density x Habitat = population est.
Population x 12-16% = Guidelines
Cougar Harvest 1979-2018
Including Milestones

- I-655 banned hound hunting
- ESB 5001 (PSCR)
- SSB 6118 (Pilot cougar)
- PMUs with Guidelines

General Dog Seasons
Permit Dog Seasons
## Comparison with nearby states

<table>
<thead>
<tr>
<th>State</th>
<th>Human pop</th>
<th>Cougar Habitat</th>
<th>Cougar Pop</th>
<th>Cougar Density</th>
<th>Hunter Harvest</th>
<th>Conflict Removals</th>
<th>% Hunter harvest</th>
<th>% removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA</td>
<td>7.5 M</td>
<td>104,788</td>
<td>3,350</td>
<td>3.2</td>
<td>205</td>
<td>53</td>
<td>6.1%</td>
<td>7.7%</td>
</tr>
<tr>
<td>OR</td>
<td>4.2 M</td>
<td>186,000</td>
<td>6,400</td>
<td>3.4</td>
<td>300</td>
<td>180</td>
<td>4.7%</td>
<td>7.5%</td>
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<tr>
<td>ID</td>
<td>1.8 M</td>
<td>207,200</td>
<td>6,600</td>
<td>3.2</td>
<td>550</td>
<td>41</td>
<td>8.3%</td>
<td>8.9%</td>
</tr>
<tr>
<td>MT</td>
<td>1.1 M</td>
<td>192,000</td>
<td>5,300</td>
<td>2.8</td>
<td>485</td>
<td>43</td>
<td>9.2%</td>
<td>10%</td>
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<tr>
<td>UT</td>
<td>3.1 M</td>
<td>92,700</td>
<td>3,500</td>
<td>3.8</td>
<td>383</td>
<td>49</td>
<td>10.9%</td>
<td>12.3%</td>
</tr>
<tr>
<td>NV</td>
<td>3 M</td>
<td>130,000</td>
<td>3,000</td>
<td>2.3</td>
<td>150</td>
<td>25</td>
<td>5%</td>
<td>5.8%</td>
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<tr>
<td>CA</td>
<td>39.5 M</td>
<td>184,200</td>
<td>5,000</td>
<td>2.7</td>
<td>NA</td>
<td>103</td>
<td>NA</td>
<td>2.1%</td>
</tr>
<tr>
<td>CO</td>
<td>5.7 M</td>
<td>152,350</td>
<td>5,000</td>
<td>3.3</td>
<td>450</td>
<td>70</td>
<td>9%</td>
<td>10.4%</td>
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<tr>
<td>WY</td>
<td>0.57 M</td>
<td>115,000</td>
<td>Unk</td>
<td>Unk</td>
<td>271</td>
<td>8</td>
<td>NA</td>
<td>NA</td>
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<tr>
<td>AZ</td>
<td>7.2 M</td>
<td>274,166</td>
<td>2,500</td>
<td>0.9</td>
<td>282</td>
<td>32</td>
<td>11.3%</td>
<td>12.6%</td>
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<tr>
<td>NM</td>
<td>2.1 M</td>
<td>186,972</td>
<td>5,500</td>
<td>2.9</td>
<td>270</td>
<td>23</td>
<td>4.9%</td>
<td>5.3%</td>
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</tbody>
</table>
## Focus areas

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<th>State</th>
<th>Human pop</th>
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<tr>
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<td>39.5 M</td>
<td>184,200</td>
<td>5,000</td>
<td>2.7</td>
<td>NA</td>
<td>103</td>
<td>NA</td>
<td>2.1%</td>
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</table>
### Comparison with nearby states

<table>
<thead>
<tr>
<th>State</th>
<th>Harvest limit</th>
<th>Sex specific limit</th>
<th>Mandatory inspection</th>
<th>Hounds</th>
<th>Hunt Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Intrinsic growth rate 12-16%</td>
</tr>
<tr>
<td>OR</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Maintain population of &gt; 3,000 cougars statewide</td>
</tr>
<tr>
<td>UT</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Maintain &lt; 40% female &amp; 15-20% &gt; 5 years old</td>
</tr>
<tr>
<td>NV</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Keep adult female (≥ 3 years) harvest &lt; 35% of harvest and total females &lt; 50% of harvest</td>
</tr>
<tr>
<td>WY</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Source sink and stable pop</td>
</tr>
<tr>
<td>AZ</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Keep female (≥ 3 years) harvest &lt; 25% of total take</td>
</tr>
<tr>
<td>NM</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>% female in harvest</td>
</tr>
</tbody>
</table>

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Take home messages

• Many ways to approach cougar management
• All start with management objectives
• Objectives often reflect societal values
• Many require population and/or harvest information
  – demographics, density and growth rate
What Adjustments Should We Make?

- Existing GMP
  - Options in March 2020
  - Propose changes supported by current GMP
    - Nexus to public safety and conflict
    - Adaptively manage by PMU
    - Increased hunting opportunity

- Revised GMP - Consider
  - May require SEPA work
    - Longer timeline
    - Evaluate objectives
      - Stable population, 12-16%
      - Changes to PMUs and related guidelines
Addressing Public Safety Concerns

Mick Cope and Steve Bear
Cougar Game Management Plan Objectives for Public Safety

Minimize negative human-cougar interactions so that the “number of interactions per capita” is constant or declining from 2007 levels
Current Actions

- Website - Living with Wildlife
  - Basic Cougar Biology
  - Conflict Prevention
    - Clear brush and other hiding places
    - Don’t feed wildlife/pets
    - Keep pets inside
    - Keep garbage cans inside
    - Secure Livestock
Current Actions

- Wildlife Conflict Specialists (18)
  - Personal Communication
  - Husbandry
  - Education/Outreach
Current Actions

• Enforcement Officers
  – Personal Communication
  – Dangerous Wildlife Reports

Photo credit: Rick Bannan; The Reflector 11/26/2018
Cougar Calls for Service - WDFW Enforcement

<table>
<thead>
<tr>
<th>Region</th>
<th>CY 2015</th>
<th>CY 2016</th>
<th>CY 2017</th>
<th>CY 2018</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>145</td>
<td>178</td>
<td>216</td>
<td>326</td>
<td>865</td>
</tr>
<tr>
<td>R2</td>
<td>88</td>
<td>89</td>
<td>103</td>
<td>104</td>
<td>384</td>
</tr>
<tr>
<td>R3</td>
<td>30</td>
<td>44</td>
<td>69</td>
<td>72</td>
<td>215</td>
</tr>
<tr>
<td>R4</td>
<td>81</td>
<td>64</td>
<td>64</td>
<td>85</td>
<td>294</td>
</tr>
<tr>
<td>R5</td>
<td>62</td>
<td>63</td>
<td>55</td>
<td>156</td>
<td>336</td>
</tr>
<tr>
<td>R6</td>
<td>51</td>
<td>50</td>
<td>130</td>
<td>175</td>
<td>406</td>
</tr>
<tr>
<td>Total</td>
<td>457</td>
<td>488</td>
<td>637</td>
<td>918</td>
<td>2500</td>
</tr>
</tbody>
</table>

Current CY 2019 To Date*
- R1: 235
- R2: 121
- R3: 62
- R4: 70
- R5: 110
- R6: 173
- Total: 771

Using the 2015-2018 growth rate applied to remaining CY averages, the projected calls would create an additional 225 incidents.

2019 Total Projection: 996

*the information for CY 2019 is from 01/01/19 to 10/10/19
Current Actions

• Enforcement Officers
  – Personal Communication
  – Dangerous Wildlife Report
  – Cougar Pursuit Season
    • RCW 77.12.077
  – Lethal Removal
    • Human safety – director memo
    • Livestock or pets

Reported Cougar Incidents in past 365 days
## Cougar Lethal Removals- WDFW Enforcement

<table>
<thead>
<tr>
<th>Region</th>
<th>Regional Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>62</td>
</tr>
<tr>
<td>R2</td>
<td>5</td>
</tr>
<tr>
<td>R3</td>
<td>3</td>
</tr>
<tr>
<td>R4</td>
<td>8</td>
</tr>
<tr>
<td>R5</td>
<td>13</td>
</tr>
<tr>
<td>R6</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>107</strong></td>
</tr>
</tbody>
</table>

### WDFW Lethal Cougar Removal Statewide Historical:

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>26</td>
<td>27</td>
<td>32</td>
<td>80</td>
</tr>
</tbody>
</table>

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Current Actions

• Enforcement Officers
  - Personal Communication
  - Dangerous Wildlife Report
  - Cougar Pursuit Season
    - RCW 77.12.077

  - Lethal Removal
    - Human safety
    - Livestock or pets
  - County Governments
    - RCW 77.15.245
Public Safety Planning for Future Actions

- Considerations:
  - Public Outreach Campaign:
    - Public Outreach Plan (2010) – limited resources
  - Workshops with County Governments – Partnerships
  - New Rules: Public Safety Cougar Removal
    - WAC 220-440-030 – longer timeframe
  - OTHER?