

WAC 220-440-210

Briefing: Black Bear Timber

Damage

Depredation Permits

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WAC 220-440-210

Black Bear Timber Damage Depredation Permitting

Summary: Outlines the requirements related to *timber owner application* for a removal permit and the processes involved for application review and permit issuance.



Bear Timber Damage

- Tree damage typically occurs mid-April to mid-June
(some seasonal and tree sp. variations)
- Highly managed forests 15-25 yrs. old are most vulnerable
(those plantations that are thinned & fertilized)
- Cambium layer of tree contains concentrated carbohydrates
in early spring
- As late spring foods emerge, bears lose interest in trees
- Damaged trees that die turn red (“red flags”) in 2-5 years
and then become gray
- A single bear can strip as many as 70 trees per day*



Management Approaches

- **Decrease bear population**
 - Hunting seasons

- **Alternative feeding**

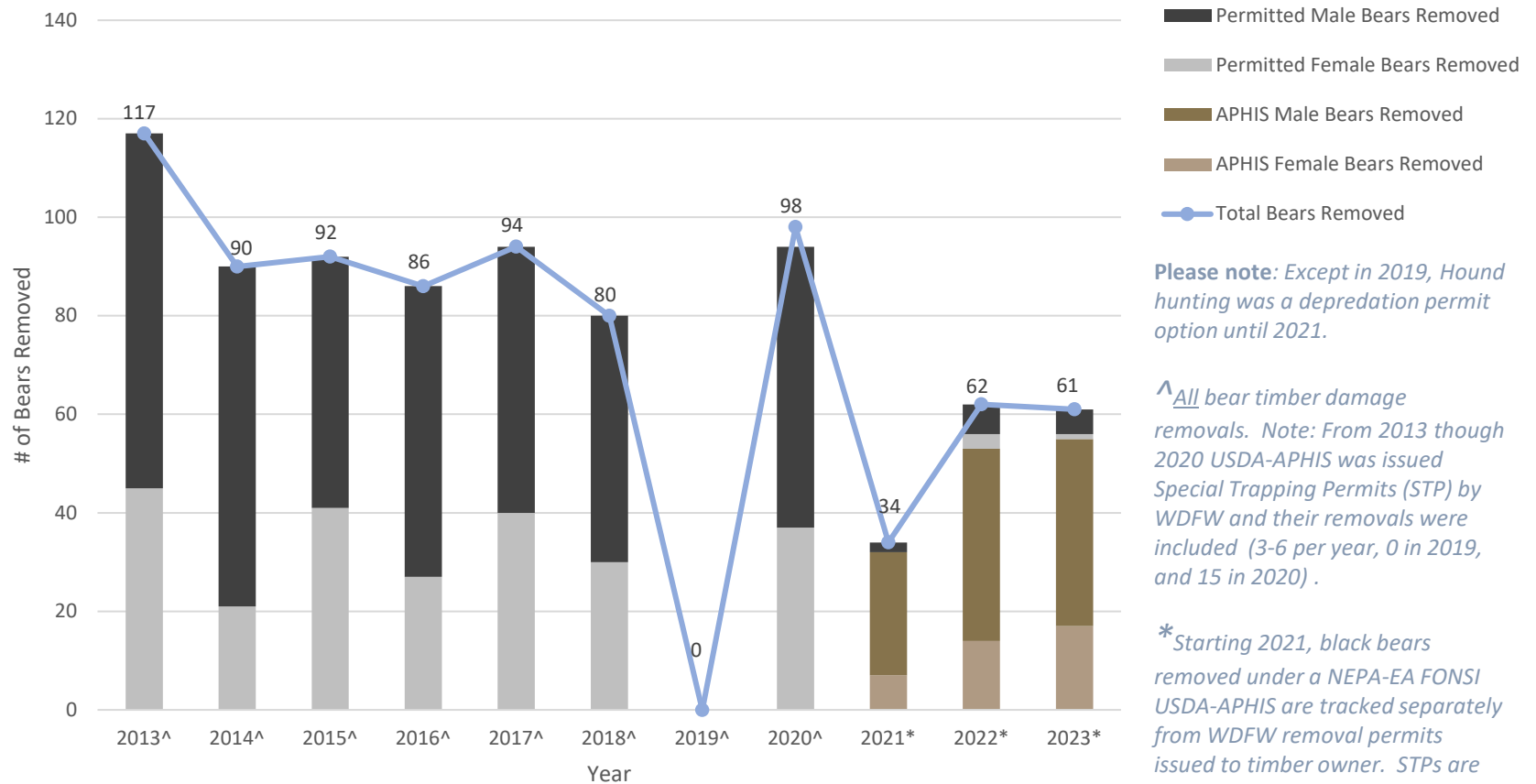
- **Targeted removal of black bears causing damage**
 - WDFW Black bear timber damage depredation permits
 - USDA *APHIS-Wildlife Services* program (fee for service)
 - All fee based for timber owner
 - Operated under a NEPA EA

- **Silvicultural approaches**



Black Bear Timber Permit Removals

2024 Status and Trends report



Please note: Except in 2019, Hound hunting was a depredation permit option until 2021.

[^]All bear timber damage removals. Note: From 2013 though 2020 USDA-APHIS was issued Special Trapping Permits (STP) by WDFW and their removals were included (3-6 per year, 0 in 2019, and 15 in 2020).

^{*}Starting 2021, black bears removed under a NEPA-EA FONSI USDA-APHIS are tracked separately from WDFW removal permits issued to timber owner. STPs are still issued by WDFW today.



Underlying Existing Wildlife Conflict RCW and WAC References



Legislative Authority

RCW 77.12.240 Authority to Take Wildlife

- (1) The department may authorize the removal or killing of wildlife that is destroying or injuring property, or when it is necessary for wildlife management or research.
- (2) The department shall dispose of wildlife taken or possessed by them under this title in the manner determined by the director to be in the best interest of the state. Proceeds from sales shall be deposited in the state treasury to be credited to the fish, wildlife, and conservation account created in RCW 77.12.170(3).



Legislative Authority

RCW 77.36.030 Trapping or killing wildlife threatening human safety or causing property damage—Limitations and conditions—Rules.

- (1) Subject to limitations and conditions established by the commission, the owner, the owner's immediate family member, the owner's documented employee, or a tenant of real property may trap, consistent with RCW 77.15.194, or kill wildlife that is threatening human safety or causing property damage on that property, without the licenses required under RCW 77.32.010 or authorization from the director under RCW 77.12.240.
- (2) The commission shall establish the limitations and conditions of this section by rule.
The rules must include:
 - (a) Appropriate protection for threatened or endangered species;
 - (b) Instances when verbal or written permission is required to kill wildlife;
 - (c) Species that may be killed under this section; and
 - (d) Requirements for the disposal of wildlife trapped or killed under this section.
- (3) In establishing the limitations and conditions of this section, the commission shall take into consideration the recommendations of the Washington state wolf conservation and management plan.



“General” Damage Rule

WAC 220-440-060 Killing wildlife causing private property damage.

The fish and wildlife commission is authorized to classify wildlife as game, and/or as endangered species or protected wildlife, and/or as a predatory bird consistent with RCW 77.08.010 and 77.12.020. The commission is also authorized, pursuant to **RCW 77.36.030**, to establish the limitations and conditions on killing or trapping wildlife that is causing damage on private property. The department may authorize, pursuant to **RCW 77.12.240** the killing of wildlife destroying or injuring property.

The conditions for killing wildlife vary, based primarily on the classification of the **wildlife species**, the imminent nature of the threat to damage private property, the type of private property damage, and the preventive and nonlethal methods employed by the person prior to the damage event. **Additional conditions defined by the department may also be important, depending on individual situations.** Killing wildlife to address private property damage is subject to all other state and federal laws including, but not limited to, Titles 77 RCW and 220 WAC.

(1-7)...(Continues with conditions and limitations. **Black bears are not referenced.**)



Summary of Proposed Changes: WAC 220-440-210 Black Bear Timber Damage Permitting Regulations

➤ **Change:** Repeal the entire *text* of existing WAC that was invalidated

- ✓ Existing number remains

➤ **Change:** Create a new process to replace the repealed WAC text

- ✓ Restructuring of the former WAC format for ease of understanding and clearer application processing
(summary in the following slide)



Summary of Proposed Changes WAC 220-440-210(1-12)

1. Purpose statement
2. Definitions
3. Standard permit conditions (several)
 - Including cessation of supplemental feeding
 - Include prohibition on baiting and use of dogs (see RCW 77.15.245)
4. Standard application process and required content
 - Personal use retention by owner requires a valid bear license and tag
 - Require a license and tag for non-owner hunters to exercise permit
 - Annual limit applies (2)
 - Retention option reduces potential wastage of bear



Summary of Proposed Changes WAC 220-440-210(1-12) continued:

5. Application determination process
6. Denial of permit process
7. Permit amendment process
8. Permit renewal process
9. Revocation of permit process
10. Appeal process
11. Penalty for violations
12. Department's lawful bear management authority is reserved



Timeline

- October 27, 2023: FWC Briefing and Public Hearing
- October 27, 2023: Public commenting closes
- November 17, 2023: FWC Decision
- January 10, 2024: File CR-103P*
- February 10, 2024: Rule becomes permanent

*If CR-103P is not filed by March 11, 2024, rule is considered withdrawn.





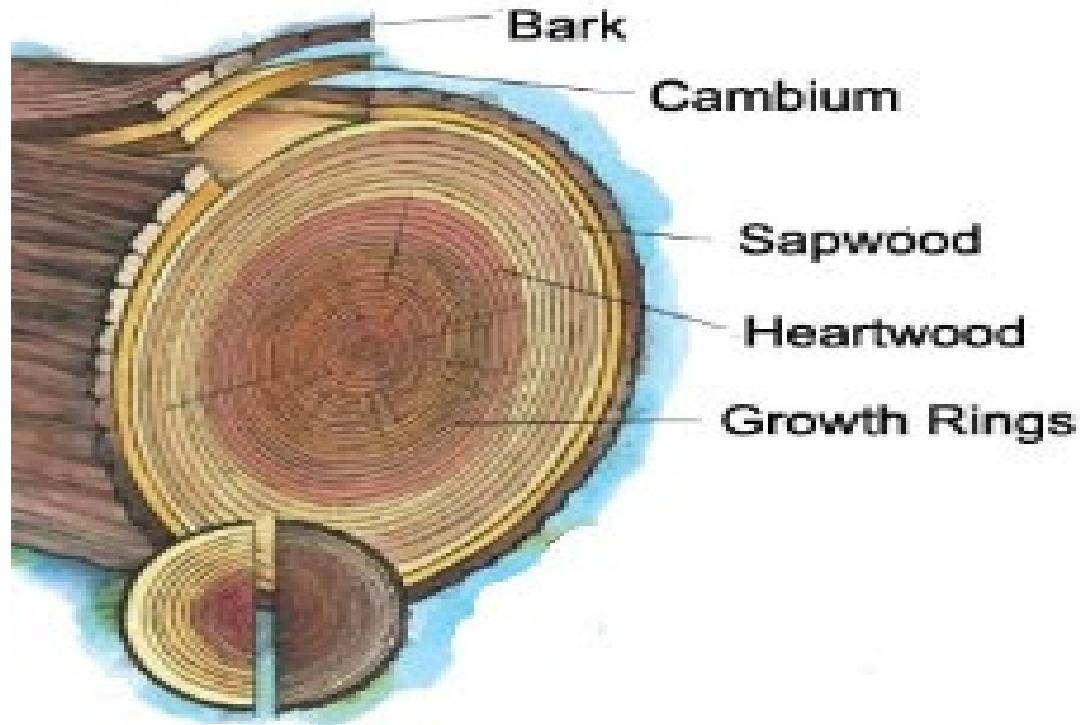
Questions?



Background Information (if needed)



What is the cambium layer?



It is the growing part of the trunk. It annually produces new bark and new wood in response to hormones that **pass down through the phloem with food from the leaves**. These hormones, called "auxins", stimulate growth in cells. Auxins are produced by leaf buds at the ends of branches as soon as they start growing in spring. (Courtesy of *Arbor Day Foundation*)



“Red Flags” and Peeled Trees



WDFW file photos



Bear Teeth Marks on Cambium



What Tree Species are damaged?

➤ Tree species most affected include:

- Douglas Fir (*Pseudotsuga menziesii*)
- Western Hemlock (*Tsuga heterophylla*)
- Western Red Cedar (*Thuja plicata*)
- other species may also be targeted

*Tree life cycle differences can also affect timing of when species are damaged

Nolte, Dale; Wagner, Kimberly K.; Trent, Andy. 2003. Timber damage by black bears: approaches to control the problem. Tech. Rep. 0324–2832–MTDC. Missoula, MT: U.S. Department of Agriculture, Forest Service, Missoula Technology and Development Center. 10 p.



Bear Timber Damage

Contributing Factors

- **Damage tends to increase when:**
 - **Herbicides are used**
 - Berry-producing shrubs are less plentiful
 - Forbs are less plentiful
 - **In areas with less moisture**
 - Steep slopes
 - South facing slopes
 - **Cambial production increases**
 - Thinning, fertilizing, and plantations tend to result in trees with increased carbohydrates stored in basal area of tree at ground level
- **Highly variable tree response to damage**
 - They either die, decline, or no effect



Bear Hunting Seasons

- Excerpt from Pgs. 42-43 of WDFW 2015-2021 GMP:
 - *Black Bear Tree Depredation on Commercial Timberlands, Objective 23--Strategies:*
 - "e. *Improve opportunities for recreational bear harvest to minimize potential timber damage.*"



Supplemental Bear Feeding

- One of the few “non-lethal” tools available

- Theory:
 - Feeders are placed in areas with historical timber damage to entice damage bears to use this source during the high damage time when other food sources are less plentiful

- Reality:
 - Expensive and labor intensive
 - Teaches bears to take a handout
 - 10 years of WDFW research (collar and camera data) has shown the damage causing bears are not primary users of the feed stations:
 - Dominant males followed by younger males
 - Females without cubs



Silvicultural Approaches

- **Intensely managed tree farming as near-monoculture and same age class contributes to damage risk**
- **To decrease bear caused damage, alter forest structure by:**
 - Create uneven-aged stands
 - Plant a mixture of tree species
(no high concentrations of 1 species)
 - Manage stands at higher stock levels during vulnerability age
(thinning reduces trees but increases sugar production)
 - Limb a tree's lower branches to help raise cambium storage higher in the tree (away from base)



Silvicultural Approaches

(continued)

- During regeneration, allow spring vegetation beneficial to bears to develop (devil's club, salmonberries, serviceberry, etc.)
- Reduce compaction when harvesting to benefit additional soft mast forage (cow-parsnip, horsetail)
- Seed landings and skid roads with clover and grasses
- Retain woody debris in openings to decay and increase insect occupancy
- Quartz sand / glue applied to bark, or use deterrent scent/taste substances (only possible for smaller scale situations)



WAC 220-440-090

Disposal of wildlife killed for personal safety or for causing private property damage.

The fish and wildlife commission is authorized pursuant to RCW **77.36.030**, to establish the limitations and conditions on disposal of wildlife killed or trapped because they were threatening human safety or causing property damage.

Except as specifically provided in a permit from the department or a rule of the commission, people taking wildlife under this title are subject to the laws and rules of the state including, but not limited to, those found in Titles **77** RCW and 220 WAC. Wildlife taken under this chapter remains the property of the state and may be disposed of in the manner and under the conditions that follow:

- (1) Wildlife killed subsequent to a permit provided by the department shall be possessed or disposed of in accordance with permit provisions and consistent with RCW **77.15.170**.



(2) Except as otherwise provided, all parts of wildlife killed in protection of private property without a permit authorized by the department must be lawfully disposed of as specified by the department or as otherwise provided in statute, rule, or local ordinance.

(3) Except as otherwise provided, big game animals or parts of big game animals killed in protection of private property without a permit must be reported to the department within twenty-four hours.

(4) Disposal methods: Unless otherwise specified in permits issued by the department:

(a) The person killing wildlife, or their designee, is responsible for disposal of killed wildlife and must dispose of the animal, within twenty-four hours or as soon as feasible, in a manner so as not to become a public or common nuisance or cause pollution of surface or groundwater.



- (b) The person responsible for disposal of dead wildlife must dispose of it by burial, landfilling, incineration, composting, rendering, or another method approved (such as natural decomposition) that is not otherwise prohibited by federal, state, or local law or regulation.
- (c) A person disposing of dead wildlife by burial must place it so that every part is covered by at least three feet of soil; at a location not less than one hundred feet from any well, spring, stream or other surface waters; not in a low-lying area subject to seasonal flooding; and not in a manner likely to contaminate groundwater.
- (d) A person disposing of a dead animal must not bury or compost it within the sanitary control area of a public drinking water supply source.

