

## 750 – UNMANNED AIRCRAFT SYSTEM USE

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### I. SUBJECT MATTER DESCRIPTION

Use of an unmanned aircraft system (UAS), also commonly referred to as a “drone,” as it relates to Department of Natural Resources’ (DNR) hunting, fishing, trapping, wildlife viewing, and public land use regulations.

### II. REFERENCES AND ANALYSIS

#### A. HUNTING RELATED ACTIVITIES

The use of a UAS as it relates to hunting related activities (e.g., scouting, hunting, recovery of wild animal killed or crippled) is complex and requires careful analysis to determine which activity the UAS operator is engaged in.

##### 1. Hunting

###### References

**s. 29.001, Stats. Definitions. In this chapter, unless the context requires otherwise:**

(6) *"Aircraft" means any contrivance invented, used or designed for navigation of or flight in the air.*

(42) *"Hunt" or "hunting" includes shooting, shooting at, pursuing, taking, capturing or killing or attempting to capture or kill any wild animal.*

**s. 29.307, Stats. Hunting with aid of aircraft prohibited.**

(1) *No person may hunt any animal with the aid of an aircraft, including the use of an aircraft to spot, group or drive, or otherwise attempt to affect the behavior of, animals for hunters on the ground.*

**s. 29.981, Stats. Parties to a violation.**

(1) *Whoever is concerned in the commission of a violation of this chapter or of any department order under this chapter for which a forfeiture is imposed is a principal and may be charged with and convicted of the violation although he or she did not directly commit it and although the person who directly committed it has not been convicted of the violation.*

(2) *A person is concerned in the commission of the violation if the person:*

(a) *Directly commits the violation;*

(b) *Aids and abets the commission of it; or*

(c) *Is a party to a conspiracy with another to commit it or advises, hires or counsels or otherwise procures another to commit it.*

###### **NR 10.07 General hunting.**

(1) *PROHIBITED METHODS. No person shall:*

(a) *Aircraft. Hunt with the aid of an aircraft, including the use of an aircraft to spot, rally or drive wild animals for hunters on the ground.*

###### **Analysis**

By statutory definition, unmanned aircraft systems are considered aircraft, and are subject to the general prohibition of “hunting with the aid of aircraft.” The broad text of the aircraft hunting prohibition

means there is no legal application of a UAS for hunting.

The term “hunting” must be interpreted in light of the legislative purpose, which can be gleaned from the statutory language and from case law. In *State v. Herwig*, 17 Wis. 2d 442, the court stated that hunting is “a privilege of reducing wildlife, which the hunter did not own, to possession and to ownership by a means and at a time and place which are lawful.”

For a person to be “hunting,” they must have the intent to reduce an animal to their possession and ownership, while having at their disposal the means (e.g., firearm, archery equipment, crossbow, or other weapon) to achieve their intended goal.

As applied to the use of a UAS, other factors should also be considered, such as if the operation is within shooting hours, the UAS operator is dressed in hunting clothing, animals are being rallied or driven, information gathered from the operation of a UAS is being used to track or pursue a wild animal, etc.

The use of an UAS to film ongoing hunting activities, such as a deer drive, is problematic as by their mere presence, the UAS operator easily becomes an active participant in the hunting activity. This could take different forms which would cross the line into potential violations of s. 29.307, Wis. Stats.

Examples of UAS filming activities that could result in a violation include:

- If the UAS camera is transmitting the recording directly to a participant in the hunting activity, such as during a deer drive, which would allow the operator to provide real-time information on the location and travel directions of the animal or to provide relocation instructions to hunters.
- If animals are inadvertently rallied or flushed by the UAS during the recording process which results in potential harvest opportunities for the accompanying hunters.
- If the recording is used to identify animal bedding areas or escape routes to plan future hunts at that location.

As with all cases, the warden needs to establish the elements of the offense in determining whether a violation of s. 29.307, Wis. Stats. has occurred with the UAS recording of hunting activities.

A warden does not need to wait until a person has shot at an animal before they can enforce a hunting violation. The conservation warden will rely on their experience in observing normal hunting behavior and the specific facts observed in each separate situation when determining if they feel sufficient probable cause exists that a person was in fact hunting with a UAS, or if the UAS operator is a party to the offense under s. 29.981, Wis. Stats.

## 2. Retrieval of Wild Animal Killed or Crippled

### References

#### **NR 10.07 General hunting.**

(1) *PROHIBITED METHODS. No person shall:*

- (f) *Retrieval.* Fail to make every reasonable effort to retrieve all wild animals killed or crippled; and until such effort is made, such wild animals shall be included in the daily bag.

### Analysis

The operation of a UAS to retrieve an animal killed would be lawful, while the operation of a UAS to retrieve an animal crippled may be a violation of s. 29.307, Wis Stats.

The operation of a UAS is not required for a hunter to demonstrate they made a reasonable effort to avoid being in violation of s. NR 10.07(1)(f), Wis. Adm. Code.

Each situation involving the operation of a UAS to aid in retrieval presents different circumstances that must be assessed on a case-by-case basis. Some of the factors that may contribute to the determination that a person is engaged in recovery of a wild animal killed or presumed dead, as

opposed to hunting, include:

- A reasonable but unsuccessful effort was made to locate the animal without the aid of a UAS.
- An articulable explanation why they believe the wild animal is dead (e.g., well-placed shot into the chest cavity, distance of the shot, blood trail, etc.).
- The operation of the UAS does not occur during the shooting hours for the animal being sought.
- None of the involved parties present during the flight or subsequent recovery efforts are in possession of a firearm, archery equipment, crossbow, or other weapon legally capable of reducing an animal to possession.
- The UAS is being flown within the line of sight of the operator.
- The UAS operator does not have a vested interest in locating the downed animal beyond assisting with locating it. The UAS operator locates the dead animal and then provides the animal's location to the hunter. The UAS operator does not accompany, communicate, or further aid in locating or retrieving the animal.
- The UAS operator is a third party and does not disclose the location of the crippled wild animal to the hunter upon locating it.

It is recognized that the hunter who shot the animal may choose to be the UAS operator. By doing so, the hunter/UAS operator risks being in violation of s. 29.307, Wis. Stats. and NR 10.07(1)(a), Wis. Adm. Code. The hunter/UAS operator clearly has a vested interest in locating and reducing the animal to possession. If the animal proves to still be alive when located, the hunter now has the location of the crippled animal and they may be in violation of s. 29.307, Wis. Stats. and NR 10.07(1)(a), Wis. Adm. Code since the UAS was used to pursue a live animal.

Regardless of the existence of the factors listed above, a warden may pursue enforcement for a violation of s. 29.307, Wis. Stats. if other facts and circumstances are present that establish a UAS was utilized for hunting.

### 3. Scouting

#### References

##### **s. 29.314, Stats. *Shining animals.***

(1) *Definition. As used in this section:*

(b) *"Light" includes flashlights, automobile lights and other lights.*

(d) *"Shining" means the casting of rays of a light on a field, forest or other area for the purpose of illuminating, locating or attempting to illuminate or locate wild animals.*

(5) *Shining wild animals after 10 p.m. during certain times of the year prohibited.*

(a) *Prohibition. No person may use or possess with intent to use a light for shining wild animals between 10 p.m. and 7 a.m. from September 15 to December 31.*

#### Analysis

Scouting is an activity conducted by hunters prior to a hunt to help understand the lay of the land and the patterns of the animals they intend to hunt. Through the years, hunters have integrated technology into the scouting process (e.g., trail cameras).

A UAS may be used for scouting activities, but the operator must be careful to:

- Not engage in acts constituting hunting and therefore violate s. 29.207, Wis. Stats.
- Not violate the rules related to wildlife viewing (SECTION D of this policy) and cause the operation of a UAS to harass or effect animals.
- Ensure that the operation of lights mounted on a UAS comply with the shining hour restrictions of s. 29.314(5)(a), Wis. Stats.

Use of a UAS to understand the topography of the landscape and determine stand location or viewing of wildlife and their patterns would not by itself be a violation of s. 29.207, Wis. Stats., but rather

needs to be considered along with all other present factors. Use of a UAS to locate live animals, such as bedded deer, feeding geese or turkeys displaying, so the UAS operator or another person could come back and hunt those animals at a later time could be a violation of s. 29.307, Stats. and NR 10.07(1)(a), Wis. Adm. Code. The further in time that the operation of the UAS is removed from hunting, the less likely it will be that the purpose of the UAS operation is considered to be hunting.

#### 4. UAS mounted lights and thermal imaging devices.

##### References

##### s. 29.314, Stats. *Shining animals.*

- (1) *Definition. As used in this section:*
  - (b) "Light" includes flashlights, automobile lights and other lights.
  - (d) "Shining" means the casting of rays of a light on a field, forest or other area for the purpose of illuminating, locating or attempting to illuminate or locate wild animals.
- (5) *Shining wild animals after 10 p.m. during certain times of the year prohibited.*
  - (a) *Prohibition. No person may use or possess with intent to use a light for shining wild animals between 10 p.m. and 7 a.m. from September 15 to December 31.*

##### Analysis

State law regulates the use of lights to shine or locate wild animals, there is no Wisconsin statute or rule which prohibits or restricts the use of a thermal imaging device for hunting. The use of a thermal imaging device mounted on a UAS to locate an animal while hunting is a violation of s. 29.307, Wis. Stats.

Irrespective of the time, and in considering the factors listed in subs. 1. associated with recovery of a killed or reasonably presumed dead animal, it is acceptable for a UAS operator to use UAS mounted spotlights to illuminate an animal carcass that has been located with the aid of a thermal imaging device for the sole purpose of determining if the animal is deceased.

## B. TRAPPING

##### References

**S. 29.001(84), Wis. Stats.** *"Trapping" includes the taking, or the attempting to take, of any wild animal by means of setting or operating any device that is designed or made to close upon, hold fast, or otherwise capture a wild animal. When "trap" is used as a verb, it has the same meaning as "trapping".*

##### NR 10.13, Wis. Adm. Code.

- (3) **SET TENDING INTERVAL.**
  - (a) *Non-submersion sets shall be tended at least once each day and any animal captured shall be removed from the set.*
  - (b) *Submersion sets shall be tended within a 4-day period following the last tending of the set. Any animal captured shall be removed from the set. Water levels shall be monitored to ensure effective submersion sets.*
  - (c) *Under ice sets are exempt from the checking periods.*
  - (d) *Sets placed for weasels consisting of body gripping traps placed entirely in enclosures, with no opening larger than 1 3/8 inch in diameter, and anchored to an immovable object shall be tended within a 4-day period following the last tending of the set. Any animal captured shall be removed from the set each time the trap is tended.*

**NR 19.25, Wis. Adm. Code. Wild animal protection.** *Unless engaged in dog training or dog trials as authorized by the department in s. NR 17.001 (3) and (5), or other activity specifically authorized by the department, a closed season is established and no person may harass, disturb, pursue, shoot, trap, catch, take, or kill protected wild animals by any means, except as described under s. NR 12.10 (1) (b) 4.*

## Analysis

UAS use while trapping is generally unregulated, likely because UASs theoretically provide little benefit to trapping activities. However, the general “wild animal protection” code provision would prevent a UAS from being used to harass or disturb animals in an attempt to drive them into traps.

An imaging equipped UAS cannot be used to meet trap tending requirements. This is similar to the department’s position that current law does not permit remotely viewed cameras to sufficiently meet the trap tending requirements of s. NR 10.13 (3), Wis. Adm. Code.

## C. FISHING

### References

**s. 29.001(27) Wis. Stats.** *“Fishing” includes taking, capturing or killing fish, other than farm–raised fish, or attempting to take, capture or kill fish, other than farm–raised fish. When “fish” is used as a verb, it has the same meaning as “fishing”.*

**NR 20.03(42), Wis. Adm. Code.** *“Unattended line” means a fishing line to which the person using the line is not actively directing his or her attention and, during open water, any line that is more than 100 yards from the person using the line.*

**NR 20.06, Wis. Adm. Code.** *Hook and line fishing. No person may do any of the following:*  
*(9) Fish with an unattended line except where specifically authorized under s. NR 20.20. Failure to immediately respond to a line upon indication of a bite shall be prima facie evidence that the line is unattended.*

**NR 20.06, Wis. Adm. Code.** *No person may do any of the following:*  
*(10) Fish with an unmanned aircraft system (UAS) or, in open water, with a free-floating, remote controlled or anchored buoyant device, with attached hook and line that is not held or otherwise controlled by the angler with the use of a line connected to the device.*

### Analysis

#### 1. Open Water

Pursuant to s. NR 20.06 (10), Wis. Adm. Code, it is unlawful to fish with a UAS.

#### 2. Ice Fishing

Pursuant to s. NR 20.06 (10), Wis. Adm. Code, it is unlawful to ice fish with a UAS.

The use of a UAS for checking a tip-up for indication of a bite does not constitute fishing as defined in s. 29.001 (27), Wis. Stats. The use of a camera equipped UAS to check tip-ups is similar to the use binoculars in that it is lawful if the angler immediately responds to the line upon indication of a bite.

## D. WILDLIFE VIEWING

### References

**NR 19.25, Wis. Adm. Code. Wild animal protection.** *Unless engaged in dog training or dog trials as authorized by the department in s. NR 17.001 (3) and (5), or other activity specifically authorized by the department, a closed season is established and no person may harass, disturb, pursue, shoot, trap, catch, take, or kill protected wild animals by any means, except as described under s. NR 12.10 (1) (b) 4.*

## Analysis

The use of a UAS for observing or photographing wildlife is somewhat restricted because the operation of a UAS may not harass or disturb the animals. Wildlife enthusiasts must be particularly sensitive to the auditory and visual senses of species in the vicinity of UAS operations, as predator/prey behavior and territorial instincts frequently cue from visual observations and noises, including reflections and shadows, or sounds inaudible to humans.

Considerations for when UAS use may rise to the level of “harass” or “disturb” include:

- A change in an animal’s natural behavior because of the visual or auditory presence or action of a UAS (e.g., causing a bird to leave its nest or altering the path an animal).
- Interfering with migration or hibernation through the use or presence of a UAS.
- Creating harassment zones through the use of a UAS to alter the natural presence or movement of animals, unless authorized by the department as a nuisance wildlife abatement measure.

## E. PUBLIC LANDS

### References

**NR 45.04 (1), Wis. Adm. Code.** *Flying related activities, including but not limited to, hang gliding, parasailing, hot air ballooning, land sailing, flying model airplanes or sky diving on state parks, state recreation areas, state natural areas, Kettle Moraine and Point Beach state forests and Lower Wisconsin state riverway shall be restricted to areas posted for their use.*

### Analysis

Except where UAS operation is allowed by posted sign or by a permit has been issued by a property superintendents or property managers for a particular state park, operation of a UAS is prohibited in the properties defined in s. NR 45.04 (1) (c).

NR 45 does not regulate UAS operation on state wildlife areas, some state forests, and additional DNR lands not otherwise included in s. NR 45.04 (1) (c), Wis. Adm. Code.

UAS operators should contact the appropriate supervising authority regarding regulations for flying of a UAS on other government-owned properties (e.g., local, county, state, and federal properties).

## F. FEDERAL REGULATIONS

### References

50 CFR Part 19. Airborne hunting

<https://faadronezone-access.faa.gov/#/>

### Analysis

DNR staff do not enforce, interpret, or advise people on federal laws or regulations. However, individuals who utilize a UAS should be aware of federal restrictions and rules governing their use.

Individuals with questions relating to federal laws and regulations should be referred to the appropriate federal agency. Wardens observing potential violations of federal laws or regulations pertaining to the use of a UAS should report the violation and any known information to the Federal Aviation Administration.

## III. BACKGROUND

As UAS technology and prevalence continues to increase, existing legal frameworks will be challenged to assess, adapt, and integrate UAS regulation. Current Wisconsin law adequately addresses most proposed

UAS uses within the conservation context. However, constant innovation necessitates diligent intervention when new, unanticipated uses are proposed that challenge the biological, public safety, fair chase and *North American Model of Conservation* principles upon which Wisconsin's conservation laws are based.

UAS operators are responsible for researching and adhering to all applicable laws affecting the deployment of UAS technology. This document presents an interpretive summary of certain Wisconsin natural resource laws applicable to UAS use; other sections of state and federal law, including Federal Aviation Administration (FAA) regulations and the Airborne Hunting Act, administered by the U.S. Fish and Wildlife Service, may impose additional controlling provisions.

#### **IV. APPROVED**

Casey Krueger  
Chief Warden

#### **V. REVISION HISTORY**

1-15-24: Revised to provide guidance on UAS mounted spotlights and thermal imaging equipment and the use of an UAS for recording hunting activities. (Legal Review: Hahn 1/5/2024)  
9-12-23: Updated to provide guidance on use of an UAS with animal recovery and other hunting and fishing-activity relating to the use of an UAS (Legal Review: Hahn 8/30/2023).  
4-1-15: Created.