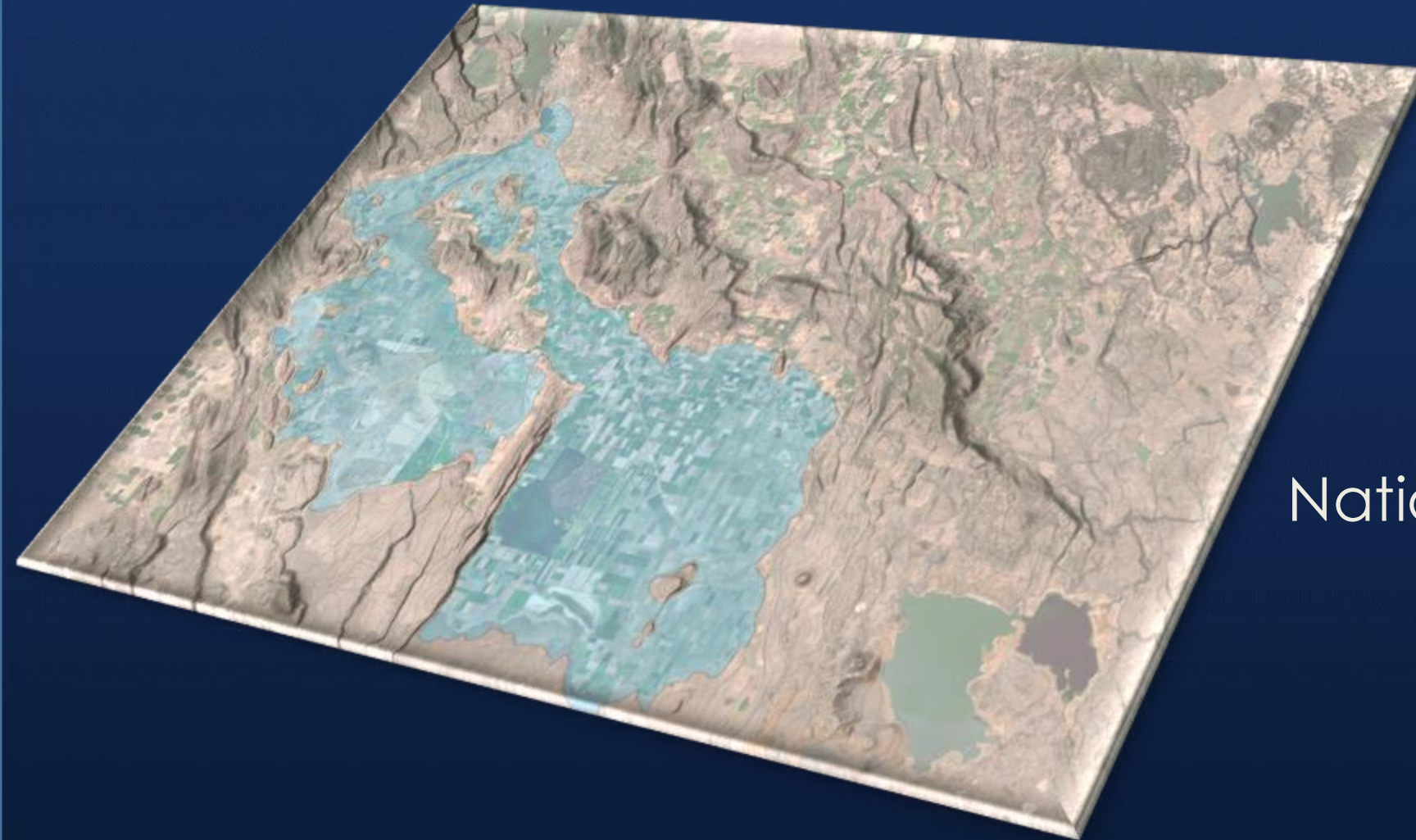




Habitat Conditions and Hunt Information



Lower Klamath
and Tule Lake
National Wildlife Refuges
2026 / 2027



Meeting Purpose & Expectations

- Education on Refuge guiding principles, legislation, and management objectives that influence hunt planning.
- To provide information about habitat conditions and changes to the hunting program that will be implemented during the 2026/2027 hunting season.
- This presentation includes answers to the questions that we received via email.
- After this presentation staff will answer questions, provided they are communicated respectfully.



Thank You

- **All of You** – for supporting your National Wildlife Refuges
- **Cal Ore Wetlands and Wildlife Council** – Continued advocacy, youth engagement, and funding support
- **California Waterfowl Association** – advocacy, banding, disease management, and water support
- **Ducks Unlimited** – advocacy and habitat restoration
- **Tulelake Irrigation District** – wetland and waterfowl management collaboration
- **Klamath Drainage District** – advocacy and spring tailwater deliveries
- **Klamath Water Users Association** – advocacy and spring water deliveries to Lower Klamath NWR
- **Klamath Watershed Tribes** - water and habitat advocacy
- **Oregon Bird Alliance** – monitoring and water advocacy
- **Refuge Staff** – For the work they do every day in service to the public and the Refuge Mission



Klamath Basin NWRC

The Klamath Basin National Wildlife Refuge Complex is made up of six Refuges in the Klamath Basin that include Tule Lake, Upper Klamath, Lower Klamath, Klamath Marsh, Bear Valley, and Clear Lake, whose combined mission is to protect what remains of what once was the largest perennial wetland system west of the Mississippi River. These surviving wetlands remain a highly managed yet critical part of the Pacific Flyway, a place where migrating waterfowl can rest and refuel.



Compatible Recreation

- Refuge managers do their best to balance the needs of wildlife, wetland preservation, and people.
- Grounded in the Refuge Improvement Act 1997.
- Six wildlife-dependent recreational uses are allowed when they are compatible with a refuge's purpose. They include hunting, fishing, wildlife observation, photography, environmental education, and interpretation.
- A recreational use is compatible when it:
 - Does not conflict with fish and wildlife habitat goals or objectives
 - Develops the public's understanding of, and appreciation for, their role in the conservation of our nation's fish and wildlife resources
- Habitat and water management is based on wildlife needs first.





The Kuchel Act

and Management of Lower Klamath and Tule Lake National Wildlife Refuges

After nearly a decade of debate between agricultural interests and conservationists over the future of the refuges, The Kuchel Act of 1964 dedicated the lands within the boundaries of Tule Lake and Lower Klamath NWRs to wildlife conservation for the primary purpose of waterfowl management, with a mandate of continuing an agricultural leasing program consistent with “proper waterfowl management”

At a time, when agricultural crops were viewed as a requirement for waterfowl in the Klamath Basin, and Tule Lake and Lower Klamath NWRs held unparalleled fall waterfowl populations of 5 to 7 million birds, the bill was viewed as a win-win solution.

The debate continues to this day



The Kuchel Act Cont.

Agriculture

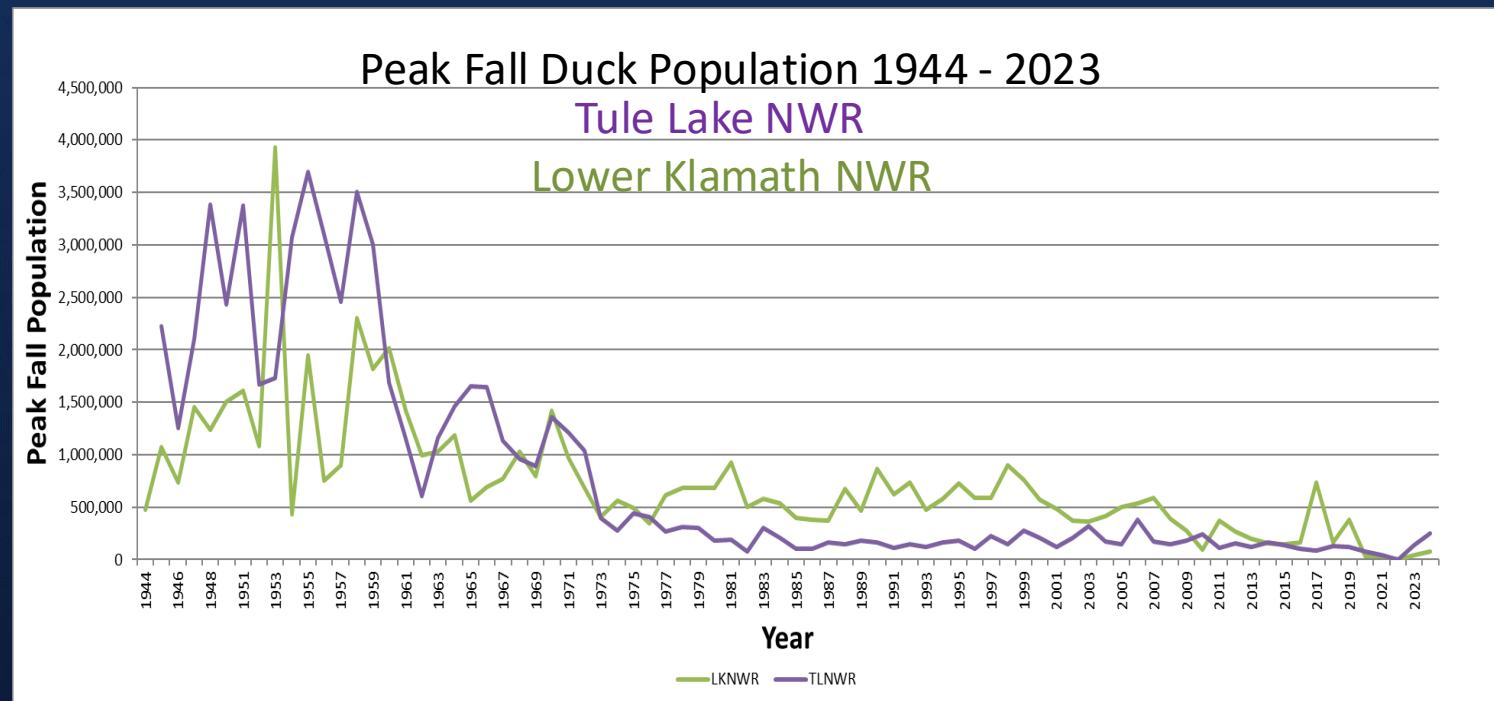
- The Kuchel Act of 1964 dictates how much refuge land can be used for certain crops and how much must be kept as wetlands to support waterfowl. The Bureau of Reclamation manages these agreements and keeps the money.
- One-third of the leased land can be used for row crops when proper waterfowl management has been achieved. Farmers decide what to plant and where.
- The refuge works with farmers to leave some grain behind for the birds on cooperative farmlands.
- The refuge can partner with farmers to manage flooding, grain left in the fields, and wetland areas. This can include both cooperative farmland and private or leased lands.
- Growing row crops on cooperative farmland helps increase the amount of grain left for birds elsewhere on the refuge (lease lands), creates more wetlands, and allows better control of flooding during the fall.



Setting the Stage for Discussion

No Water - No Wetlands - No Birds

- National Wildlife Refuges in the Klamath Basin continue to struggle with reliable supply and delivery of water to meet the needs of wetlands and migratory waterbirds.
- Without reliable and adequate water deliveries, waterbird populations will continue to decline.





Water Availability and Management

- Tule Lake NWR holds a priority water right under the Klamath Reclamation Project.
- Under the 1964 Kuchel Act, Lost River flows outside the irrigation season should be directed to Wetland Units 1A and 1B.
- Wetland Units 1A and 1B at Tule Lake (about 13,000 acres), along with 8,000–10,000 acres of year-round wetlands at Lower Klamath, are critical to meeting the requirements of the Kuchel Act.
- Currently, these requirements set by Congress are not being met.



Water is Everything

- The current Biological Opinion provides some water to the refuges, but it does not recognize the need for reliable water throughout the year. Without year-round water, the refuges cannot fully meet the goals of the Pacific Flyway Waterbird Management Plan.
- Reduced and unpredictable water deliveries to both refuges have made it impossible to properly manage waterfowl habitat, even though waterfowl management is a priority required by the 1964 Kuchel Act.
- Unreliable water supplies affect everything that depends on healthy wetlands and effective waterbird management, including agriculture.



Habitat Overview

Fall 2025 Spring & Summer 2026

- The Klamath Basin experienced exceptionally low snowpack during the 2025–26 winter.
- The Klamath Project received only 50% of its full water supply (221,000 acre-feet), leaving less water and flexibility to deliver water to Tule Lake and Lower Klamath refuges.
- Tule Lake wetland Units 1A and 1B had stable water levels through fall, spring, and early summer, but levels began dropping in mid-June.
- Tulelake Irrigation District and Refuge staff have worked together to maintain water levels throughout the summer.
- Lower Klamath had abundant wetland habitat in the spring, but little to no water was delivered during the summer. as a result, much of the Refuge dried up during the critical brood-rearing and molting season.
- Both Lower Klamath and Tule Lake NWR's received much needed water between August 16 and August 24.
- Both Tule Lake and Lower Klamath NWR's had full farming program this year (lease and cooperative).



Population Monitoring in 2025/2026

- Funding cuts eliminated aerial surveys beginning fall 2025.
- This marks the end of the nation's longest-running refuge-based aerial waterfowl survey.
- Without aerial surveys, the Refuge cannot accurately track waterbird population trends during spring and fall migrations. Refuge staff are working with partners to develop alternative survey methods.
- Refuge staff continue to conduct brood counts and banding operations.



2026 Duck Banding

- Why does the Refuge Band Birds ?
 - Hunting regulations in the Pacific Flyway are based in part on data from the Western Mallard Model.
 - Bird banding provides important information on waterfowl reproduction, movement, survival, and harvest, helping biologists track populations and make informed management decisions.
- Duck banding was delayed due to the botulism outbreak.
- Ducks were banded in Unit 2 at Lower Klamath and Units 1A and 1B at Tule Lake.
- More than 1,000 geese were banded at Lower Klamath, Tule Lake, Upper Klamath, and on private lands in Oregon.
- About 7,000 ducks have been banded at Tule Lake and Lower Klamath By Refuge and CWA staff.





Disease/Mortality in Waterbirds

- Disease occurs naturally in wildlife populations, but poor habitat conditions and limited water can increase the risk and severity of outbreaks.
- Botulism has affected both Tule Lake and Lower Klamath since mid-June, with an estimated 15,000 bird deaths.
- Proactive water management, including late-August deliveries, helped control the outbreak and reduce bird deaths.
- Avian influenza has been detected at Tule Lake; testing is underway to determine the strain.



Tule Lake National Wildlife Refuge





Tule Lake NWR Waterbirds

Fall 2025 Spring/Summer 2026/Fall Outlook

Fall 2025

- Habitat improved, but waterbird numbers appeared below long term average populations.
- Units 1A and 1B were full or filling, meeting sanctuary habitat needs.
- Units 1A and 1B were open to hunting.
- Botulism continued into mid-November.

Spring/Early summer 2026

- Wetland habitat and conditions improved.
- Spring migration numbers appeared below long term average populations.
- Breeding pairs and successful reproduction were above long term average populations.
- Brood numbers remained high, and molting birds increased from 2025.
- The largest increases were in non-waterfowl species, including grebes and ibis.

Fall 2026

- Conditions going into fall are good – Wetland habitat and agricultural resources.
- Many locally produced and molting birds remain on the Refuge.
- Early migrant numbers, including teal, pintail, wigeon, and shovelers, appear to be above long term average populations.



Current Conditions on Tule Lake NWR

Wetlands 1A & 1B

- Both units are currently full.
- Unit 1A has large mats of old cattail, softer bottom conditions, and less submerged aquatic vegetation.
- Unit 1B is becoming increasingly overgrown on the east side.
- Both units are scheduled for aerial treatment in September to increase shallow, open-water habitat.

Freys Island

- Units D, E, and F will be disked this fall. They will remain open to hunting but may be less productive and harder to access.
- Restoration work on Units A, B, and C is planned for 2027.

Agriculture

- Continued pressure to plant winter cereals.
- Alfalfa acreage continues to expand.



Lower Klamath National Wildlife Refuge





Lower Klamath Waterbirds

Fall 2025 Spring/Summer 2026/Fall Outlook

Fall 2025

- Habitat improved throughout the fall, but waterbird numbers appeared below long term average populations.
- Seasonal wetlands and grain fields became available as water allowed.
- Sanctuary habitat needs were met.
- Lower Klamath was fully open to hunting.

Spring/Early Summer 2026

- Wetland habitat and conditions improved.
- Spring migration numbers increased but remained below long-term average populations.
- Breeding pairs and brood numbers were above average.
- Wetland drying during brood rearing may have reduced survival of young birds, especially in Units 12C, 6A–C, 3, and 2.
- Molting bird numbers increased from 2025, but limited habitat may have affected molting success.

Fall 2026

- Wetland availability is poor, but agricultural food resources are good.
- Many locally produced and molting birds remain on the Refuge.
- Early migrants, including teal, pintail, wigeon, and shovelers, are arriving.
- Heavy bird use of dry agricultural fields is already occurring.



Current Conditions on Lower Klamath NWR

Unit 2

- Nearly dried by early August and was not maintained at the elevation required by the 2024 Biological Opinion. Received water Aug. 16–27.

Unit 3

- Nearly dried out over the summer but has been receiving water since Aug. 18.

Unit 6A

- Continued to dry through summer; fall water availability is uncertain.

Area K

- May receive fall water, but flooding is outside Refuge control.
- Refuge staff is unaware if additional water deliveries are currently planned



2026 Hunting Program Changes

Lower Klamath, Tule Lake, and Upper Klamath National Wildlife Refuges

- Add quail as a huntable species during the existing pheasant season on Lower Klamath and Tule Lake.
- Upland gamebird hunting times have changed (upland game bird hunting ends at 2:30 PM)
- Reconfigure hunt and sanctuary units at Lower Klamath and expand the area open to hunting.
- Open a new area to waterfowl hunting at Upper Klamath.
- Use a sliding scale to open or restrict waterfowl hunt units based on flooded habitat at Lower Klamath and Tule Lake.



2026 Hunt Program Change Process

(The Rulemaking Process)

1. **Define the Changes** - FWS identified the proposed hunting changes.
2. **Public Scoping Meeting** - FWS presented the proposal and asked for public input.
 - Public Comment Periods:
 - Dec. 4, through Jan. 30, 2026
 - May 27 through June 26, 2026
 - EA: May 27 through June 27, 2026
3. **Environmental Review** - FWS reviewed impacts, alternatives, and public comments.

4. **Public Comment** - FWS released the proposed plan and environmental documents for public review.
5. **Final Decision** - FWS considered comments and decided which changes to approve.
6. **Final Rule** - FWS published the approved regulations and effective date.
7. **Implementation** - The new rules are now in affect for the 2026 hunting season.



Sliding Scale for Dry Years

Adaptive Approach at Lower Klamath NWR and Tule Lake NWR

- The sliding scale is an adaptive way to manage waterfowl hunting during years with limited water deliveries.
- Waterfowl hunting at Lower Klamath and Tule Lake will depend on the amount and location of flooded habitat.
- Upland gamebird hunting is not affected by the sliding scale.
- The approach protects minimum sanctuary needs first, then opens hunt areas when conditions allow.



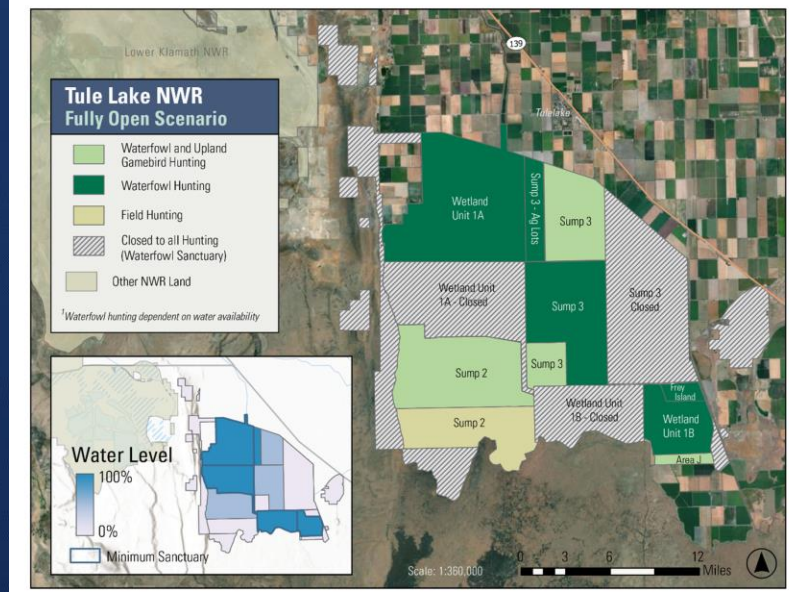
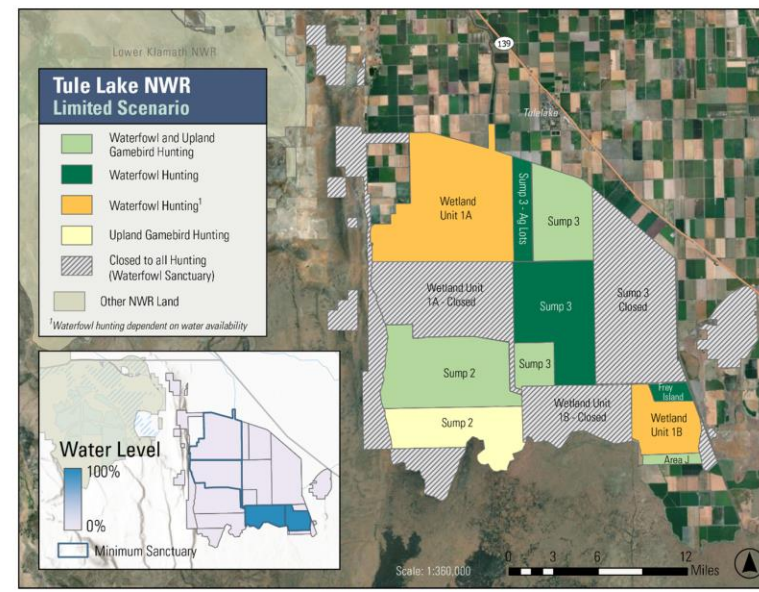
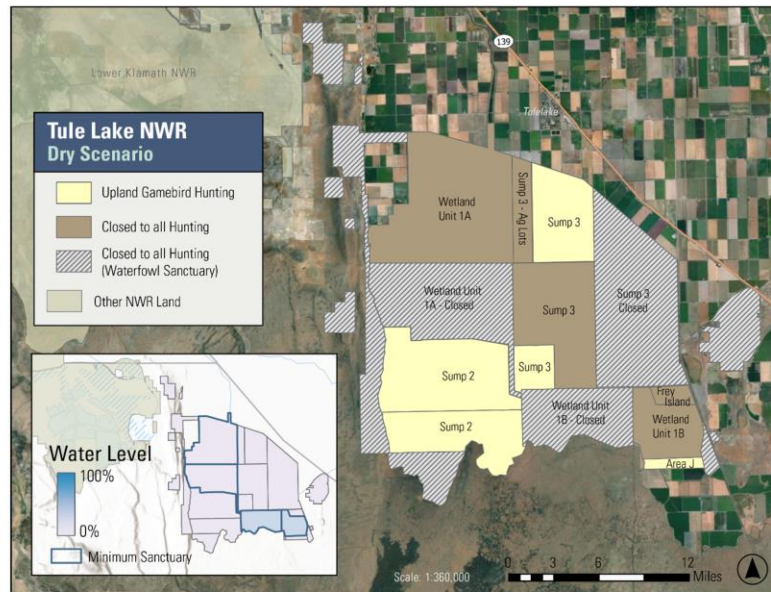
Sliding Scale for Dry Years Cont.

Lower Klamath NWR and Tule Lake NWR

Three possible outcomes

1. **Dry conditions:** the refuge is dry, and waterfowl hunting is closed (Upland game bird hunting remains open)
2. **Limited Water:** specific areas are flooded resulting in limited waterfowl sanctuary habitat. The refuge is open to a restricted level of waterfowl hunting, with reduced wetland and agricultural habitat within the hunt area.
3. **Adequate Conditions:** the refuge has enough water to provide sanctuary habitat, and waterfowl hunting is fully open within the hunt area.

Tule Lake NWR

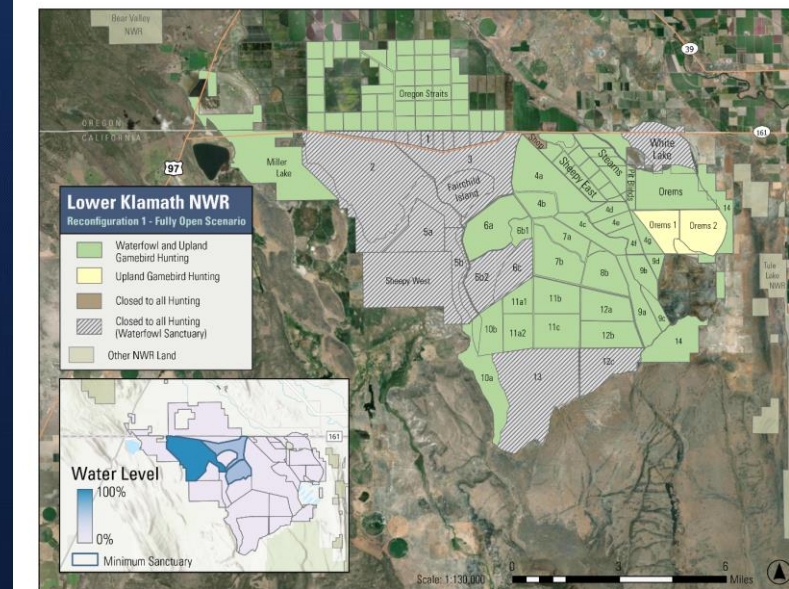
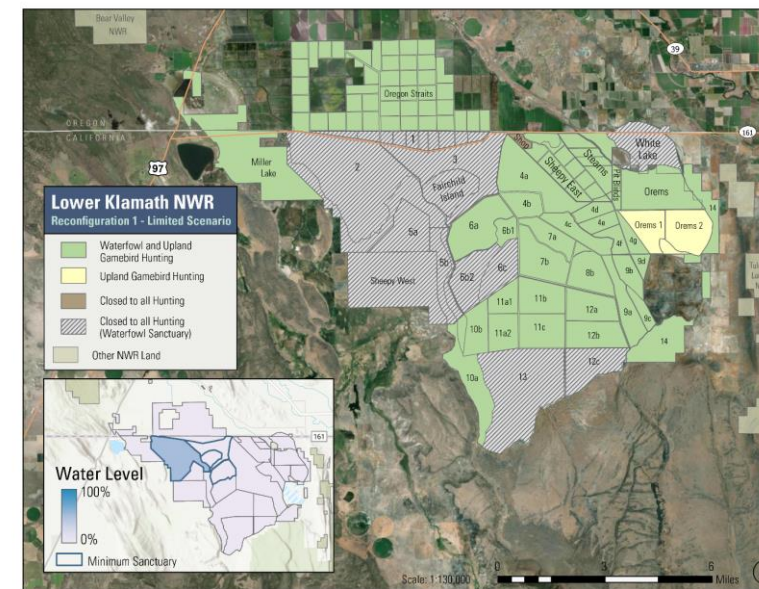
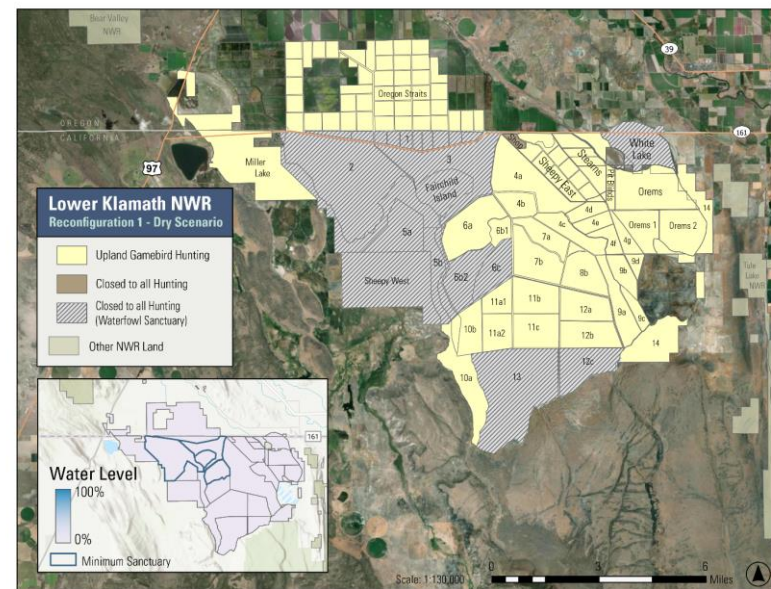


DRY

LIMITED WATER

ADEQUATE CONDITIONS

Lower Klamath NWR





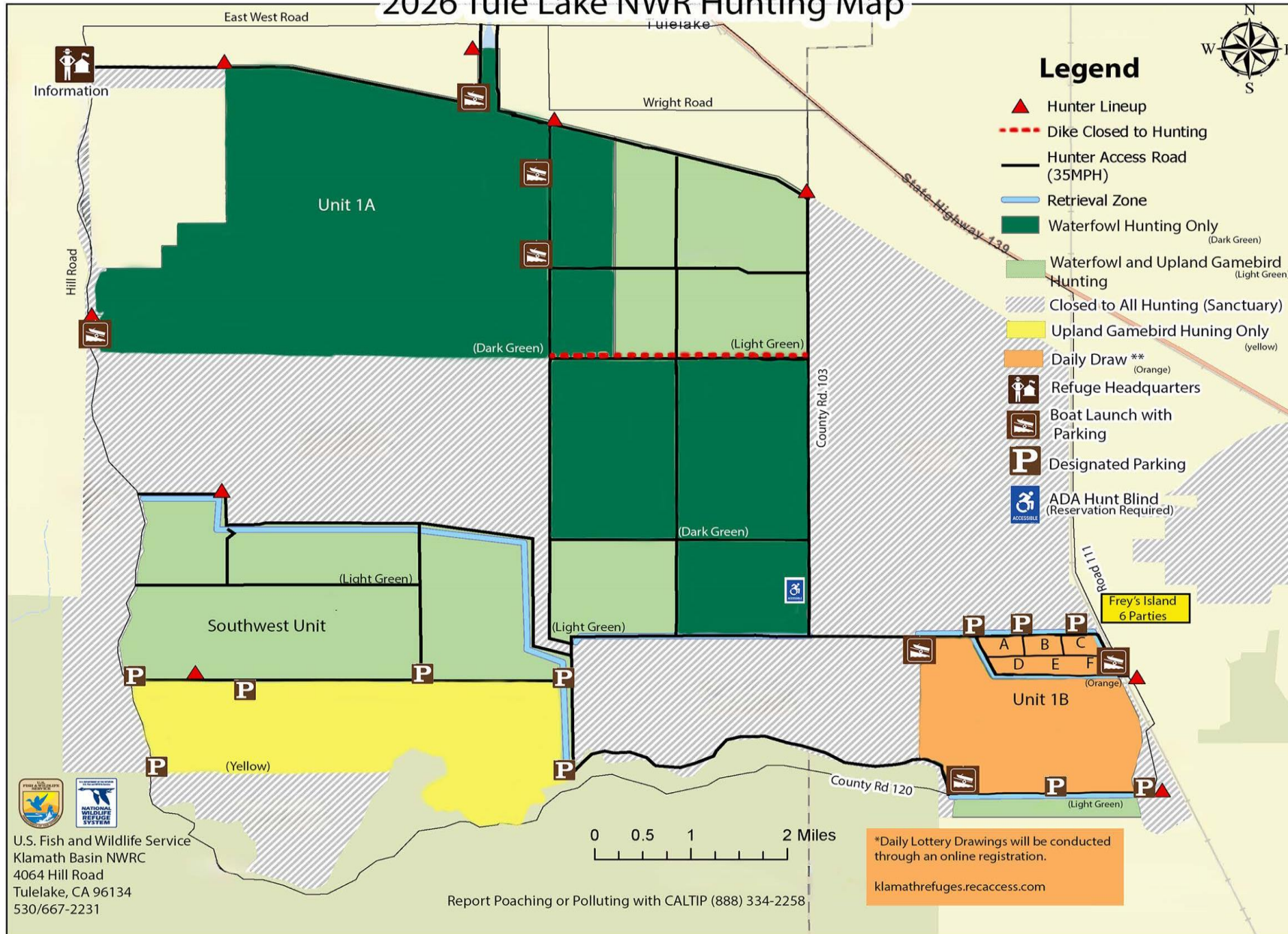
Hunting on Tule Lake This Season

Waterfowl

- **Preseason Hunt Determination - ADEQUATE CONDITIONS/FULLY OPEN**
- Hunting for ducks and geese will begin one half hour before sunrise and end at 1:00 p.m. each day - **No Full-Day Hunting**
- **Wetland Unit 1A** (Oct. 3 – end of season)
Hunting is available on a first-come, first-served basis. Boat-in and walk-in access permitted.
- **Wetland Unit 1B** (Oct. 3 – Dec. 1)
Hunting is available by lottery for up to 10 parties, with each party limited to 4 hunters and 1 motorboat. Boat-in and walk-in access permitted.
- **Fry's Island Units** (Oct. 3 – Dec. 1)
Hunting is available by lottery for up to 6 parties (lots A-F). Boat-in and walk-in access permitted.
- **Wetland Units 1B and Fry's Island** (Dec. 2 – end of season)
Both units become free roam on a first-come, first-served basis, with the same party restrictions as above.
- **All Other Dry and Flooded Field Hunt Areas**
Will operate on a first-come, first-served basis with no daily drawing. Hunters may drive into fields to set up, but must exit fields before shooting time, which follows state shooting schedules.

ADEQUATE CONDITIONS/FULLY OPEN

2026 Tule Lake NWR Hunting Map





Hunting on Tule Lake Cont.

Wetland Units 1B and Fry's Island Lottery

- Unit 1B and Frey's Island Units A–F will use an online lottery through RecAccess.com <https://klamathrefuges.recaccess.com/>
- **Unit 1B:** 10 parties per day
- **Frey's Island:** 6 parties per day
- Lottery access runs **Oct. 3–Dec. 1**, with a separate drawing for each hunt day.
- **Note:** Habitat work will be completed in units D,E,F hunters should anticipate a lot of open water and poorly consolidated soil

Application Rules

- Parties must apply as a group.
- The **Group Leader** enters all members when applying.
- Group Leaders need each member's **name and RecAccess ID (RAID #)**.
- No changes can be made after payment.
- Each "group" (not individual) is assigned a random number that is used for the draw order (A group of 1 and a group of 4 are same.)
- An instructional video will be available on RecAccess.

Lottery Schedule

- **Opens:** 9:00 a.m., 3 days before the hunt
- **Closes:** 2:00 p.m., 2 days before the hunt
- Hunters may apply for up to **two hunt days** at a time. Cost has been reduced (\$25 General, or \$12.50 for Sr. & Student)
- Winners are randomly selected.
- Results will be emailed and posted on RecAccess by **5:00 p.m., 2 days before the hunt.**



Tule Lake Upland Game Bird Hunting

- Upland game bird hunting is allowed in designated hunt zones from **8:00 a.m.–2:30 p.m. daily** (NEW).
- Pheasant numbers have improved but remain below pre-2020 levels.
- Upland habitat conditions have improved across Tule Lake NWR.
- Hunters should expect average bird numbers, with some areas holding larger concentrations.
- Quail hunting is allowed in designated upland hunt areas during California pheasant season, **Nov. 14–Dec. 27**. (NEW)



Hunting on Lower Klamath This Season

Waterfowl and Upland Game Birds (OR and CA)

- **Preseason Hunt Determination** - Limited Water / Limited Hunting Opportunities
- Early waterfowl hunting will likely be limited to **dry fields** until more water becomes available.
- Flooded grain fields are expected on the Oregon side of the Refuge (Straits).
- If water becomes available, Refuge staff will flood additional units to increase hunting opportunities.



Hunting On Lower Klamath

(OR and CA)

Waterfowl Hunting

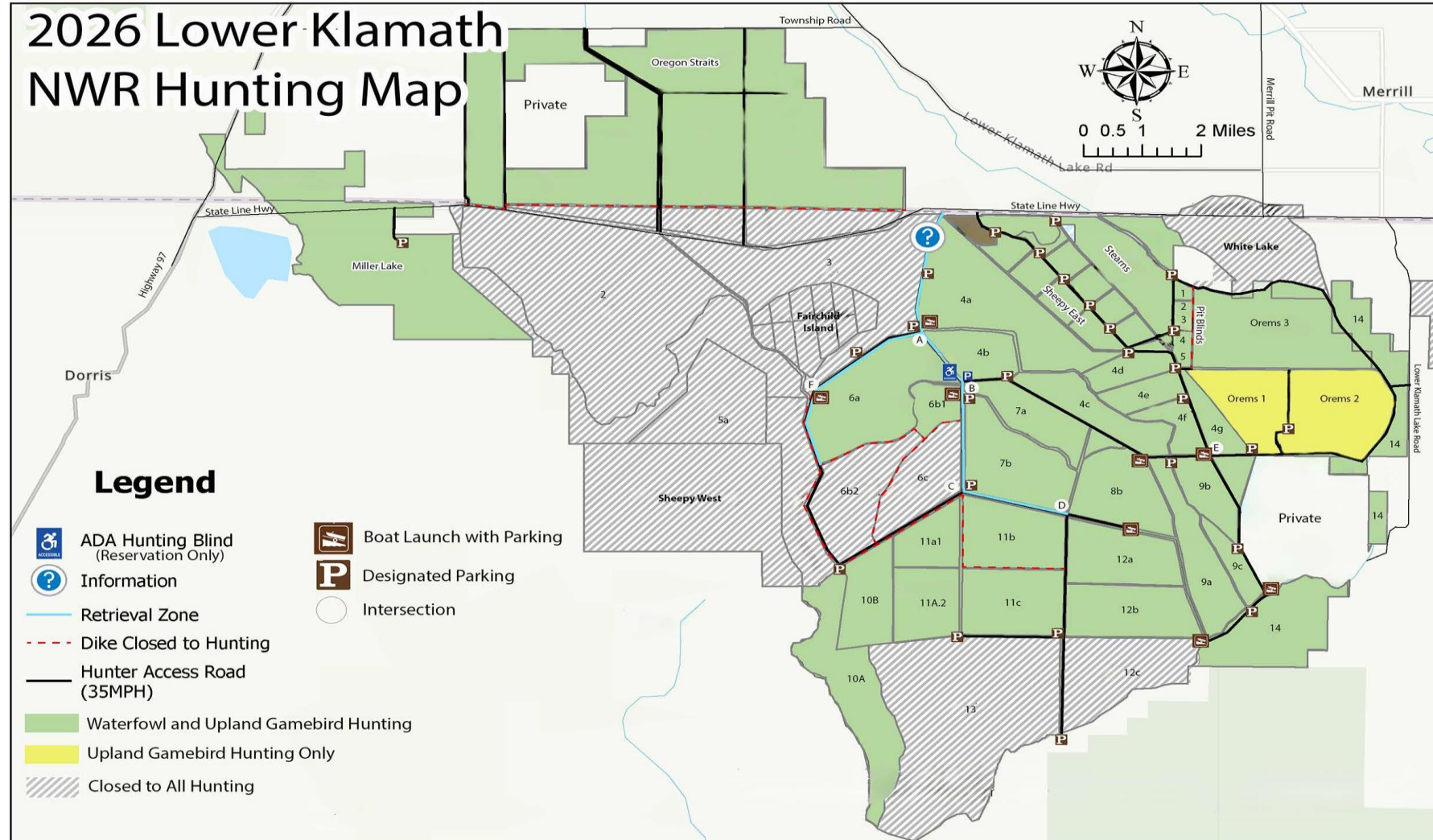
- Hunting is allowed in **designated hunt areas**, including new areas described later.
- Hunting hours are **½ hour before sunrise to 1:00 p.m. daily** — **No full-day hunting in Oregon or California.**
- All hunt areas are **first-come, first-served** — no daily drawing.
- Hunters may drive into fields to set up but must **exit fields before shooting time.**
- Seasonal road closures (4C–8B) will occur **only if wetlands are flooded.**
- Access may change throughout the season based on conditions.

Upland Game Bird Hunting

- Upland game bird hunting is allowed in designated areas at Tule Lake NWR
- from **8:00 a.m.–2:30 p.m. daily** (NEW).
- **NEW:** Quail hunting is allowed in designated upland hunt areas during California and Oregon pheasant season, Oregon (**Oct 10 – Dec 31**) California (**Nov. 14–Dec. 27**).

LIMITED WATER/LIMITED HUNTING OPPORTUNITY

2026 Lower Klamath NWR Hunting Map



Report Poaching or Polluting with CALTIP (888) 334-2258



U.S. Fish and Wildlife Service
Klamath Basin NWRC
4064 Hill Road
Tulelake, CA 96134
530/667-2231



Hunting Upper Klamath NWR



- Walk in or boat (lake) access only
- Waterfowl hunting is allowed in designated hunt areas.
- Hunting hours are ½ hour before sunrise to sunset daily.
- Hunt areas are first-come, first-served — no daily drawing.
- No upland game bird hunting.



Please Hunt Responsibly

Respect Others • Respect Wildlife • Respect Your Refuge

Respect All Refuge Users

- If a spot is taken, come back later
- Hunt safely and give each other space
- Avoid low shots and conflict
- Don't yell or drive boats/vehicles aggressively
- Everyone hunts differently—be considerate
- Not all visitors are hunters; set a positive example
- Upland hunters – Do not walk levees or through fields where waterfowl hunters are set up

Respect Wildlife

- Avoid high shots
- Only shoot where you can retrieve game
- Retrieve all game
- Don't leave carcasses in roads, parking lots, or trash cans





Please Hunt Responsibly – Cont.

Respect Others • Respect Wildlife • Respect Your Refuge

Respect Your Refuge

- Know before you go: Several regulations have changed this year.
- Check the Refuge website and Facebook page for current hunting information and maps before the season.
- Launch boats only at designated public sites.
- Do not walk or drive through active hunting areas.
- Follow all Refuge speed limits.
- Obey all posted signs and closures.
- Assume roads are closed unless marked open.





Use CAUTION While Boating

- Watch for rocks, floating tule mats, root balls, fencing, and other debris.
- Old blind materials, including boards and timbers with exposed nails, may be floating in the wetlands.
- The wetland bottom remains uneven, with deep holes, cracks, and soft spots.
- Restored channels can be 6–12 feet deep and difficult to see.
- The southern Unit 1A hunt boundary may be difficult to identify; some wetland areas are now in closed zones.



INVASIVE PLANT ALERT !

Purple loosestrife is a highly invasive plant that threatens wetland habitats

- The plant occurs throughout wetland 1A and parts of wetland 1B and is now showing up at LKNWR and UKNWR
- Control is expensive, ineffective, and funds are being spent on loosestrife control at the expense of more needed habitat work
- Purple loosestrife reduces habitat quality for waterfowl and wetland dependent wildlife
- **Do Not** use this plant for blind material.
- Wash boats, decoys, waders, boots, etc. When leaving the refuge (there are several wash stations throughout TLNWR)
- Drain boats well
- Dispose of all blind material before leaving the wetland as it likely has loosestrife seeds in it





Public Health Notice – Water Quality & Disease

Avian Influenza

- Is present in the waterfowl population
- Use caution when handling, cleaning, and cooking harvested birds
- Follow CDC guidelines for safe handling and consumption

Toxic Algae

- Is present in refuge wetlands (OR & CA)
- TL, LK, and UKL: Check California and Oregon health advisories for humans before hunting
- Risk to pets remains high – monitor dogs closely, especially early in the season
- Illness in dogs may appear as skin problems or other health issues



Questions Submitted by Email

The Refuge received questions by email from 7 people on a variety of topics.

The following slides address questions that may not have been fully answered earlier in the presentation.

Staff will also be available to answer additional questions during breakout sessions at the end of the presentation.



Access Questions

Questions about restoring or expanding hunting opportunities, including evening and afternoon hunting and women's and youth hunts.

Answer:

We recognize that evening hunting, additional afternoon hunts, and women's hunts are valued opportunities for the hunting community. The Refuge recently expanded hunting opportunities at Tule Lake, Lower Klamath, and Upper Klamath, including new hunt areas, additional species, and increased access.

However, current water availability, habitat conditions, and waterfowl population trends do not support restoring these additional hunting hours or special hunts at this time. The current schedule is intended to balance quality hunting opportunities with adequate feeding and resting areas for waterfowl.

As water, habitat, and bird populations improve, Refuge staff will reevaluate opportunities for additional hunting.



Regulations Questions

Questions about guide access, treatment, and the future of commercial guiding on the Refuges.

Answer:

- The Refuge currently plans to continue allowing permitted commercial guides.
- Guides receive the same access as the public and must follow the same lotteries, procedures, and hunting regulations.
- Guides do not receive preferential access and are held to a higher standard as permit holders.
- Anyone with concerns about preferential treatment should contact the Refuge Project Leader.

Questions about guide permit terms and the selection process.

Answer:

- Current guide permits expire in 2027.
- Guides must apply for a Refuge permit and are selected through a blind panel review.
- Selection is based on experience, qualifications, safety record, and past performance.
- Guides pay an annual permit fee and set their own rates for clients.
- There are currently 3 permitted guides at Tule Lake and Lower Klamath and 4 at Upper Klamath.
- Commercial guiding is allowed only with a Refuge permit. Unpermitted guiding on Refuge lands is prohibited.



Thank You !

Please Contact us with Questions

John Fitzroy– Visitor Services Manager

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458-281-0140 – Cell

John Vradenburg – Supervisory Biologist

john_vradenburg@fws.gov

575-517-7733 – Cell

Summary of Peer Reviewed Literature on Afternoon Hunting

Literature Supported Reasons for Afternoon Hunting

- Hunter success may be higher
- May support recruitment and retention
- Aligns with spikes in waterfowl foraging activity
- Distributes hunting activity
- Increases opportunity (temporally)

Literature Supported Reasons for Afternoon Closures

- Waterfowl use of food resources declines under all day hunting
- Impacts to non-target species is higher
- Waterfowl foraging is higher in sanctuary areas (spatial or temporal) which improves energetic benefits
- Decreases “sanctuary effect” and nocturnal foraging shifts
- Sanctuary zones often lack adequate energetic resources (reduces ability to hold/stage birds) – Afternoon access to hunt areas can off set this
- Birds conserve energy with shorter flights to undisturbed food resources (on refuge)
- Harvest is not impacted
- Hunter experience/satisfaction may improve (more birds observed, increased bird movement, harvest rates)