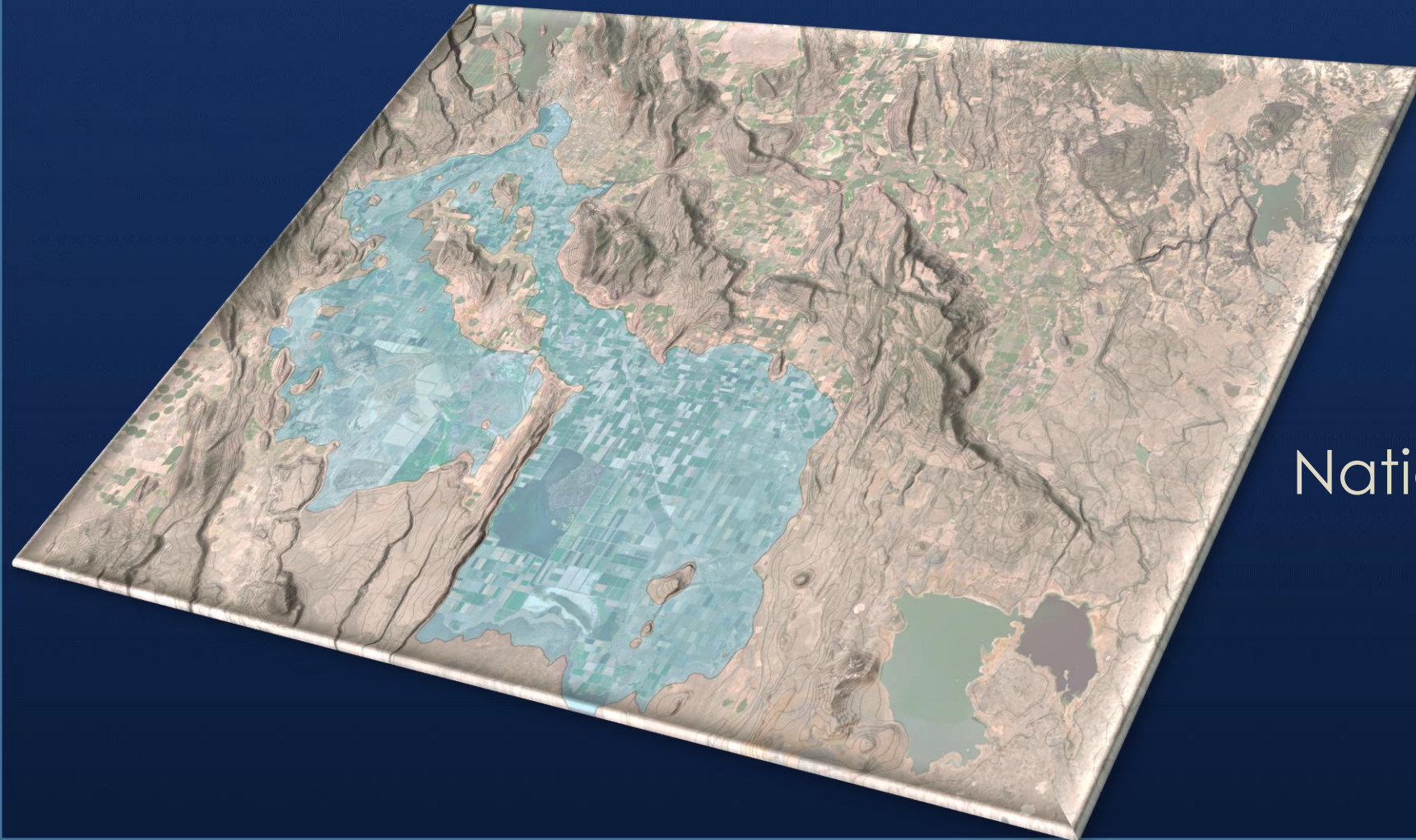




Habitat Conditions and Hunt Information



Lower Klamath
and Tule Lake
National Wildlife Refuges
2024



Meeting Purpose & Expectations

- The purpose of this meeting is to provide information about habitat conditions and provide information about the 2024/2025 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

Refuge Staff – For all the work they do to support wetlands and waterbirds

CWA for their advocacy and assistance with banding and disease management

Ducks Unlimited for their advocacy and assistance with infrastructure upgrades and the rehabilitation hospital

BirdAllyX for disease management and rehabilitation hospital operation

Tulelake Irrigation District for their advocacy and water deliveries to Units 1A and 1B in 2024 Spring

Klamath Drainage District for advocacy and spring tailwater deliveries

All who are reading this in support of your National Wildlife Refuges



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 wetlands area 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
- 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
- Refuge staff is aware that not every management decision is going to be supported by all user groups
- We hope that this presentation will help you better understand what we are doing and alleviate some anxiety and frustration





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 leased 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
- One-third of the leased land can be used for row crops when conditions are right. Farmers decide what to plant and where.
- The refuge works with farmers to leave some grain behind for the birds
- 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, create more wetlands, and allow better control of flooding during the fall.



Setting the Stage for Discussion

No Water - No Wetlands - No Birds

- The Klamath Basin received above average precipitation during the winter of 2023/2024, which has helped improve the wetlands. However, habitat conditions are still poor.
- It's disappointing that, even after two of the wettest years in over a decade, water deliveries have been limited.
- This ongoing issue with water reliability is causing serious problems for the wetlands, as well as the waterbirds, fish, and communities that depend on them.
- The Klamath Basin is losing its wetlands quickly, losing both land area and the ability of these areas to stay flooded.



Setting the Stage for Discussion Cont.

- The National Wildlife Refuges in the Klamath Basin are facing the most severe threats since the 1920s.
- Despite some improvements this year, the population of water birds remains worryingly low
- Our main goal is to enhance the refuges' habitat value throughout the year, allowing the wetland to support larger numbers of staging waterbirds, as well as those during the breeding, molting, and fall migration periods
- To achieve this, staff work within existing constraints to develop and maintain habitats that are accessible to the public and provide a sanctuary for birds. This ensures a rich habitat for birds and a high-quality experience for visitors.



Water Availability and Management

- Tule Lake NWR holds a top-priority water right under the Klamath Reclamation Project
- According to the 1964 Kuchel Act and a Federal Contract, The Lost River's flow outside the irrigation season should end in Units 1A and 1B
- Wetland units 1A and 1B are essential for meeting Kuchel Act Requirements
 - #1 Proper waterfowl management (habitat and food)
 - #2 Agricultural production (facilitate irrigation).



Water is Everything

- The current biological opinion has removed refuges from the Pacific Flyway waterbird management plan
- Reduced water deliveries to both refuges have made it impossible to properly manage waterfowl, which is required by the 1964 Kuchel Act
- This situation has affected and will keep affecting everything that depends on good wetland and waterbird management, including agriculture
- Without adequate water deliveries, waterbird populations will continue to decline



Water is Everything Cont.

- Recent studies by the Intermountain West Joint Venture show that the main problem for waterfowl migrating in the fall along the Pacific Flyway is the lack of water on public lands and wetlands. These areas are keeping water for shorter times because of increasing water shortages

<https://onlinelibrary.wiley.com/doi/full/10.1111/gcb.15010>

<https://www.frontiersintps://esajournals.onlinelibrary.wiley.com/doi/10.1002/ecs2.2758>

<https://org/articles/10.3389/fevo.2022.844278/full>



Habitat Overview

Fall 2023 Spring & Summer 2024

- Although there's plenty of water in the watershed, not enough was delivered to the refuges
- In spring 2024, Tule Lake wetland units 1A and 1B were filled, but their water levels have been dropping since late May.
- To help, extra water was added to Unit 2 on August 17th to help manage disease and support young birds until they can fly.
- Similarly, Lower Klamath wetlands 3, 2, 6A, 6B, and 5B were filled, and Lot 4B was irrigated and planted with grain under the refuges cooperative farming program.
- Water was moved between units as it evaporated to consolidate the water to help young birds reach the stage where they can fly.



Population Monitoring in 2023/2024

- Few aerial surveys were done in 2023/2024 because bad weather grounded flights
- Limited flooding in Wetland 1B, combined with keeping 1B as a sanctuary, helped increase bird activity during the early to mid-fall 2023 migration
- Spring water deliveries to Tule Lake and Lower Klamath refuges led to more bird use during the Spring migration
- Surveys in spring and summer showed a recovery in nesting birds at both refuges, likely due to better wetland conditions and fewer predators because of the long drought



2024 Duck Banding

- Why does the Refuge Band Birds ?
 - Hunting harvest regulations in the Pacific Flyway are based on the Western Mallard Model
 - Bird banding helps biologists understand waterfowl populations, including their production, age, movement, survival, and harvest rates in 2024
- Duck banding was conducted on both refuges in 2024 (~7K)
- 2024 duck banding was primarily in Unit 2 LKNWR and wetland 1B.
- About 700 geese were banded at Lower Klamath, Tule Lake, and private lands in Oregon
- Around 7,000 ducks were banded at both refuges in 2024, mostly in Unit 2 of Lower Klamath and Wetland unit 1B on Tule Lake
- Unfortunately, even though there were many young and molting adult ducks, Wetland 1A couldn't be used for banding because of bird diseases like HPAI and botulism.



Disease in Waterbirds on Tule Lake

- In July 2024, Highly Pathogenic Avian Influenza (HPAI) was found in eared grebes in Sump 1A
- In August 2024, Low Path Avian Influenza was found in many of the waterfowl that were tested
- Refuge staff, along with the National Wildlife Health Center (USGS) and the National Wildlife Health Office (USFWS), are continuing to test for HPAI
- Botulism was detected in wetland unit 1A in early August 2024, but lower levels were detected in 1B
- Diseases, especially in area 1A, will affect the survival of young birds and those molting this year
- The disease outbreak this year will be one of the worst on record (>60,000 birds)

Tule Lake National Wildlife Refuge





Tule Lake Waterbirds

Fall 2023 Spring/Summer 2024

In 2023 - conditions remained poor, and there were fewer birds

- There was limited wetland habitat available
- Wetland 1B was the only sanctuary habitat for birds during the fall migration for both TLNWR and LKNWR
- Wetland 1B was opened to limited access in December 2023

In 2024 - wetland conditions improved

- Spring migration numbers improved
- The number of breeding pairs and successful local reproduction was above average
- The number of young birds (broods) was the highest in 30 years
- The molting bird population was lower than usual for some species but higher for others
- The biggest increase in waterbird populations were seen in non-waterfowl species like grebes and ibis



August 2023



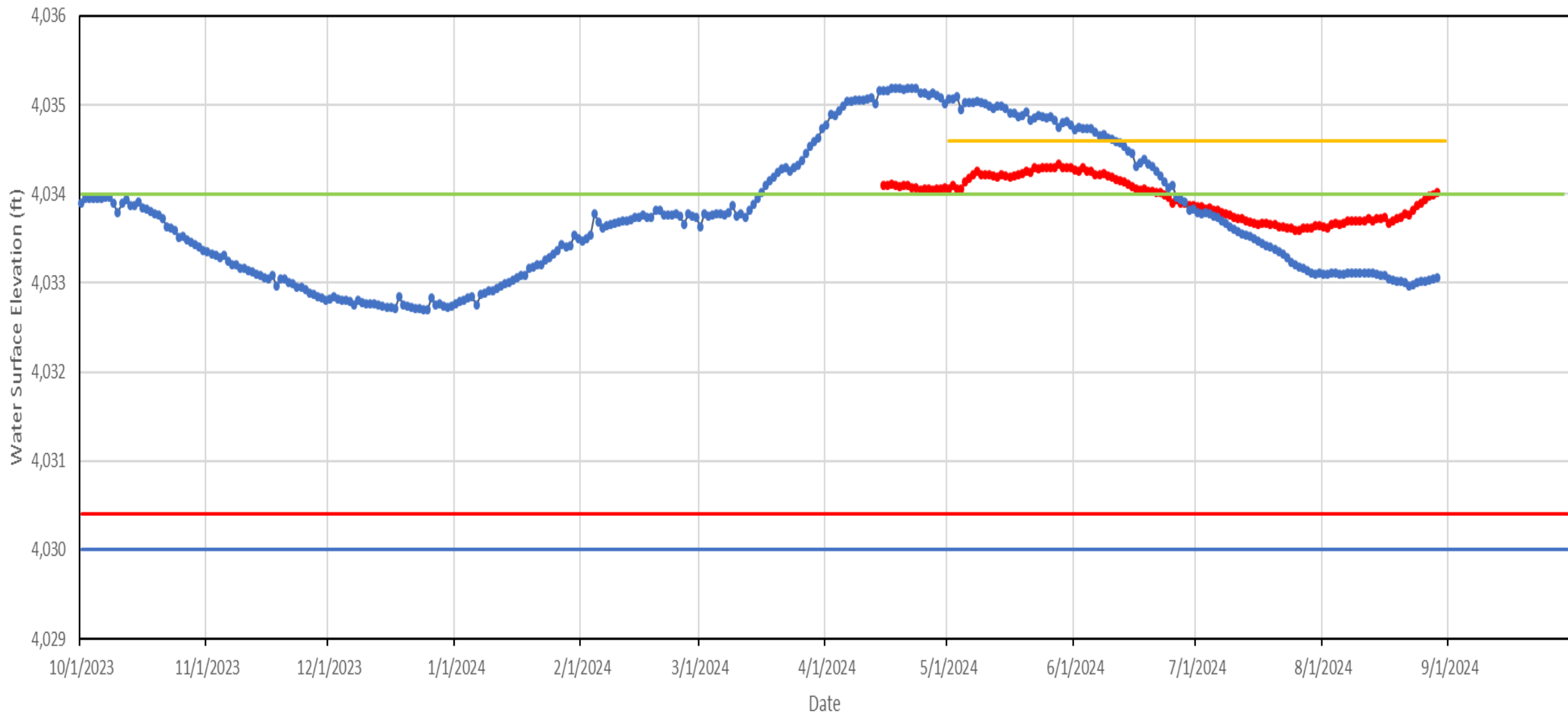
August 2024



Current Conditions on Tule Lake NWR

- Tule Lake NWR still has problems getting a steady water supply
- Wetlands 1A and 1B are about 75% full
- There have been many issues with the infrastructure
- Problems include ditch collapses, sinking levees, and broken pumps
- The southwest sump was affected the most, with less grain and more empty fields
- The Tulelake Irrigation District did a good job using leftover water from farming (return Flows) to help keep water levels up
- But there still wasn't enough water for everything needed

Tule Lake Sumps Water Surface Elevation-Water Year 2024



1A Elevation (ft) 1B Elevation (ft) Minimum Biop Elevation Irrigation Season Minimum (May-Aug) 1A Bottom 1B Bottom



Hunting Outlook on Tule Lake NWR 2024/2025

- Areas 1A and 1B will be open with the usual access rules
- Youth and early season hunters can expect to see many sick or dead birds due to botulism: Hunting is allowed, but it's **not recommended** until the die-off is over
- Conditions in 1A will be very different compared to previous years
- Motorized boats are allowed where they've been used before
- Boat access might be harder because of low water levels and more vegetation
- Walking in or using layout boats might work better in some areas
- Access to 1B will be by online lottery from opening day through Thanksgiving



Hunting Outlook on Tule Lake Cont.

Fields will be opened for hunting – Dry and Flooded

- Some fields will be flooded for all or part of the hunting season
- It's unclear when or how many grain fields will be flooded.

Pheasant hunting will be opened under normal access rules

- Pheasant populations have rebounded well on TLNWR
- Habitat conditions are improved in some areas but still poor in other areas
- Hunters should expect good success early in the season and increased challenges later in the year



CAUTION!

- 1A has changed dramatically
- Expansive areas of shallow water exist where there used to be wetland plants
- There are numerous obstacles (rocks, floating tule mats, large root balls, fencing material).
- Debris from old blinds is floating out there (pallets, timbers, boards) - many have exposed nails.
- The bottom is harder but there are still deep holes and cracks.
- Restored channels are deep (6-12'). They are currently hard to see in some areas and you will go over waders.
- The southern hunt boundary line is harder to see – Portions of the wetland are now in closed zones.
- The North portion of the 1B zone has become choked with vegetation. The Hunt line is difficult to see and many of the holes are filled in



Flooded Conditions at TLNWR August 29, 2024



Circled areas indicate very shallow conditions and in 1B dry areas



Public Health Notice

Avian Influenza is present in the waterfowl population

- Take care when handling, cleaning, and cooking harvested birds
- Follow published CDC guidelines for safe handling and consumption

Toxic Algae is present in the wetlands

- Take care when hunting with dogs, especially early in the season when conditions are warm

Invasive purple loosestrife is everywhere in 1A and parts of 1B

- Wash boats, decoys, waders, boots, etc. When leaving the refuge (there are several wash stations throughout TLNWR)
- Do not make blinds out of purple loosestrife
- Dispose of all blind material before leaving the wetland

Lower Klamath National Wildlife Refuge



Lower Klamath
National Wildlife Refuge
White Lake Unit



Current Conditions Lower Klamath NWR

- Right now, Lower Klamath NWR is getting a small amount of water in Unit 2 to help birds reach the stage where they can fly
- Lower Klamath NWR is not expected to receive any more water until December
- For waterbirds to recover, Lower Klamath NWR needs consistent water deliveries in the summer and fall to create more permanent wetlands. This will:
 - Attract more migrating waterfowl, leading to more birds stopping at the refuge
 - Provide good sanctuary areas with less disturbance and more food
 - Allow more flexibility in managing water so that food and habitat are available when birds need them.



Hunting Outlook on Lower Klamath NWR 2024/2025

If water delivery stays the same Lower Klamath Will be open for hunting

- The Oregon Straits (Area K) will be open for waterfowl and pheasant hunting.
- On the California side: only dry field waterfowl and pheasant hunting will be allowed.
- Seasonal road closures (4C-8B) won't happen unless the wetlands are flooded.
- Waterfowl hunting in flooded wetlands will be reconsidered if water deliveries begin.
- The pheasant population hasn't improved due to long dry conditions and poor habitat.



Hunting Program Reminders

- Hunt information on our website Including area maps will be updated and available prior to the start of the season
- Please:
 - Launch boats at designated public launch sites only
 - Do not walk or drive through areas where others are hunting
 - Pheasant hunters – stay away from fields and levees where people are hunting waterfowl
 - Follow the speed limits when driving on the refuge
 - Pay attention to and follow all signs – like “Area Closed,” “No Motorized Vehicles,” and “Parking”



Questions Submitted by Email

Refuge received questions via email from 6 people

- The questions were about different topics:
 - Access (7 questions)
 - Draw/blinds (4 questions)
 - Guides (4 questions)
 - Regulations (3 questions)
 - Pheasant Hunting (1 question)
 - Management (1 question)
- The next slides will answer the questions that were sent in.
- Staff will try to answer any other questions during breakout sessions at the end of the presentation.



Access Questions

Not Answered Above

- Why do we allow hunting on one refuge and not the other, ie, Sometimes Tule Lake, and not Lower Klamath? This depends on how much water is available and the need to protect good habitat, (sanctuary) for waterbirds.
- Will there be restrictions on the junior hunt ? No, the junior hunt will have the same rules and opportunities as the general hunt.



Draw & Blinds Questions

Not Answered Above

- Will there be spaced blinds or will everything (fields) be free roam in Tulelake like last year?
Yes, everything will be free roam except for Unit 1B. There won't be any draws for spaced blinds.
- Will the spaced blinds (fields) or free room areas have water by opening weekend?
We don't know yet. Flooding the agricultural lots is a team effort, but it mostly depends on how much water is available and what the farmers need.
- Is there a lottery for opening day as has been the case in past years? If so, how do I enter the draw? There is no lottery system draw, except for the Sump 1B draw (Opening Day through Thanksgiving). If there are issues, we will re-visit.



Guide Questions

- Will there be guides on the refuge this year?
Yes, all guides are currently working under existing five-year agreements
- Do guides put unnecessary pressure on the birds? If yes. WHY?
No, guides don't put any more pressure on the birds than other hunters do.
- Why is Klamath basin refuge only 2 of the United States refuges that allows hunting guides? Guiding was found compatible with the refuge's purpose. The refuge believes that guides provide the public with increased opportunities by providing access to hunters unfamiliar with access, conditions, lacking equipment, etc.
- Can the contracts with the guides be limited or eliminated if there's not ample opportunities for the do-it-yourself hunter since the guides almost always take the best spots? Yes, the contracts with the guides can be adjusted, they have been in the past years when habitat availability was limited.



Regulation Questions

- What day is Opening Day? These are set by each state's Game and Fish Department. Check Oregon or California's state rules for more information.
- Are we required to report the number and species of birds harvested per day?
Right now, the refuge doesn't have a check station or require a harvest report. Sometimes, we work with other federal or state agencies to collect data like flu samples or animal parts, but it's up to each hunter to decide if they want to report.



Regulations Questions Cont.

- Does the Klamath Basin Complex have a habitat cut-off where hunting will be halted? There are no set habitat rules included in the yearly hunting plan. The refuge limits hunting when wetland habitat is lacking, but those choices get a lot of attention and political pressure. Because of this, they are being reviewed in long-term planning to make sure decisions are fair and clear to the public.
- If so, what is that cut-off? We try to balance habitat and hunter access, which is why we can't plan for the hunt earlier in the season. If we made decisions based on predicted water earlier, there would likely be more closures and frustration due to lack of information. For example, three weeks ago the Oregon Straits would have been closed. It's easier to add more access as things get better than to take it away if conditions get worse.
- If not, can you provide information about why it seems like waterfowl don't find refuge on the refuges during the hunt season? Hunt planning hasn't changed quickly enough to keep up with the unpredictable water availability. We might not be providing enough sanctuary, or the sanctuary we do provide isn't good enough to attract and keep birds.



Management Questions

- Why is the Refuge not flooding the White Lake Unit?

The refuge has not decided to stop flooding White Lake. The reason White Lake hasn't been flooded is that there hasn't been enough water available due to Klamath Project operations. Surface water can only be delivered by pumping from D-Plant, and the lack of flooding isn't a choice or something the refuge wants. Refuge staff want to manage water to benefit wetlands and waterbirds, but without water, there are no wetlands to manage for waterbirds and wildlife.



Please Contact us with Questions

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