

# Summit Lake Paiute Tribe

Natural Resources Department

## Newsletter



April 2024



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# Road Conditions

On March 25, 2024 the SnoTel weather station on Summit Lake Mountain recorded 35 inches of snow, and temperatures ranged from highs around 39 to lows around 21 degrees Fahrenheit. The SnoTel Station has recorded continuous presence of snow since November 17th, with the deepest amount recorded as 38 inches on March 14th. Soldier Meadows road to the Reservation has lingering puddles and some erosion in places, but is passable. Expect lots of mud and difficult travel conditions in the upcoming weeks as more snow melts.



Travelers are advised to use caution. Bring a shovel in case of getting stuck, and extra food, water, and appropriate clothing in case you need to wait for or get help. Be sure to tell someone of your planned travel and when to expect to hear from you.



# Natural Resources Staff

## James Waddell-Fish & Wildlife Biologist



Hello, my name is James Waddell, and I am beginning my sixth year as a Fish and Wildlife Biologist with the Natural Resources Department. I have a master's degree in Natural Resource Management from Oregon State University, and I have decades of field experience working on several diverse projects ranging from bear and wolf research to private consultation with government agencies. I am captivated by natural resource management issues with particular concern regarding the conservation of threatened and endangered species. I am excited to continue projects investigating bat and bird species diversity on the Reservation this summer and I am proud to serve the Summit Lake Paiute Tribe in their efforts to conserve these species and the landscape upon which they rely.

## Jason Piasecki-Fish & Wildlife Biologist

Hello, my name is Jason Piasecki and I am happy to be starting my first full year as one of your Fish and Wildlife Biologists. I



have a BS in Fisheries and Wildlife Science and an MS in Sustainable Forest Management from Oregon State University. Over the past six years I have worked with numerous threatened and endangered species including Marbled Murrelets and Red Tree Voles. My passion is to explore and develop creative solutions to conserve and protect our most sensitive wildlife resources in the face of anthropogenic and climate driven challenges. My main focus on the Reservation is Greater sage-grouse but I will also be working on various other projects such as springs restoration and migratory bird monitoring. I am excited and honored to serve both the Tribe and your wildlife resources so

please do not hesitate to reach out to me at [jason.piasecki@summitlaketribe.org](mailto:jason.piasecki@summitlaketribe.org) with any questions about upland wildlife and habitats at Summit Lake.



## Audrey Dufresne-Fish & Wildlife Biologist

Hello! My name is Audrey, and I am one of your Fish and Wildlife Biologists! I will be entering into my third field season with the



Summit Lake Paiute Tribe, and this year I'm excited to help continue to manage your Lahontan cutthroat trout alongside Keane Flynn. Another responsibility of mine will be leading the Bald Eagle Monitoring Project to help gain a better understanding of their habitat usage and to observe/quantify their predation effect on LCT. In 2021, I graduated from the University of Nevada, Reno with a degree in Environmental Science emphasizing in restoration and conservation and a minor in Spanish.

Over the past two years working on various projects through the Natural Resources Department I have seen myself grow tremendously and am excited to continue to develop my

skills this next field season. In my free time I enjoy playing rugby, exploring new places, painting, and spending time with family and friends.



# Natural Resources Staff

## Keane Flynn-Fish & Wildlife Biologist



Hello! My name is Keane Flynn and I am one of your Fish and Wildlife Biologists with the Natural Resources Department. While this is my first year as a staff biologist, this will be my fourth season working up on the Reservation. I recently finished my master's degree with the University of Nevada, Reno studying the stream-resident Lahontan Cutthroat trout population in Mahogany Creek after getting my bachelor's degree at the University of California, Berkeley. This year I will be leading the implementation of the observational network at the Reservation which will help improve our efficiency as a Department to collect remote data and share it with you all! While most of my educational background is in fisheries work, much of my professional work involves implementing cutting-edge technological advancements for environmental monitoring. I am excited to apply my diverse skillset to whatever projects I am able to assist with to help conserve the landscape and improve our ability to share this conservation effort with you all!



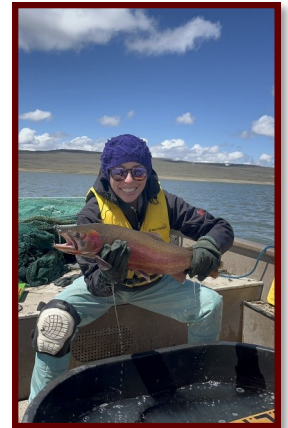
## Meghan Munn-Program Coordinator/Biologist

Hello! My name is Meghan Munn, and this will be my second year as the Natural Resources Program



Coordinator/Biologist. I grew up in Auburn, California and received my Bachelor of Science in Wildlife and Conservation Biology from UC Davis. Previously, I worked with the USGS in the California Central Valley on the monitoring project for the threatened giant garter snake, I have also worked at UC Davis in a teaching biology lab, and at UNR as a Laboratory Animal Technician. I am passionate about conservation, and I am excited to begin the reptile and amphibian study on the Reservation this year as well as assist with the numerous natural resource and environmental programs of the Tribe. Please feel free to email me at

[mghan.munn@summitlaketribe.org](mailto:mghan.munn@summitlaketribe.org) if you have any questions or concerns.



## Madison Hutchinson-Environmental Specialist



Hello everyone! My name is Maddie, and I am your Environmental Specialist. This will be my third field season and second full year working with Summit Lake Paiute Tribe. My responsibilities on the Reservation include water sampling, noxious weed management, event planning, and nonpoint source pollution studies. I am the person to talk to about any questions regarding water, invasive species, and future Tribal activities. I am a Reno local but have done other work in Wyoming and Hawaii. I graduated spring 2022 from UNR with a bachelor's degree in environmental science and a focus on ecology and sustainabil-

ity. When I am not working, I like spending time sightseeing, playing with my dog Bluey, and relaxing with a good tv show/movie. I look forward to learning more about our great Nevada environment!



# Natural Resources Staff

## Mary-Clare DeBord-Natural Resources Technician



Hello, my name is Mary-Clare DeBord. I am excited to start my second year of the field season and continue working with the Natural Resources Department. I started in March 2023, and I am honored to having to opportunity to continue working with Audrey Dufresne and Keane Flynn with the Lahontan Cutthroat Trout. I am also excited to start working more with Meghan Munn and her newly formed reptile and amphibian surveys.



## Cory Burdette-Maintenance Worker



Hello all, my name is Scott Cory Burdette. I am glad to be returning to work with the Tribe this year and look forward to working on all the exciting projects we have.





Fishing limits for 2024 were established by the Tribal Council at the February 2024 meeting:

**3 fish allowed per adult Tribal member and 1 fish allowed per minor Tribal member per year.**

- ◆ Tribal members must be present on the Reservation to take their limit of fish.
- ◆ Except for spouses of Tribal members, fishing by non-Tribal members is prohibited.
- ◆ A non-Tribal member married to a Tribal member may assist their spouse in fishing or fish in place of their spouse, as long as the Tribal member is present on the Reservation. Their take in fish per year is limited to the number of fish to which the Tribal member is entitled.
- ◆ Mahogany Creek is closed to all fishing in and above the fish trap and 100 yards below the fish trap (marked by the fence crossing the stream) from March 1 to June 15.
- ◆ **All of Mahogany Creek is closed to fishing from September-December 2024.**
- ◆ Tribal members may use dip nets and fishing poles to catch fish. The use of live bait, chumming, gaff hooks, spears, traps, wire fences, or other implements to take fish is prohibited.



Remember- the fish you catch could potentially have been tagged. Please have a Tribal employee scan your catch before cleaning it. PIT (Passive Integrated Transponder) tags are small, bead-like capsules inserted just below the skin of a fish. Tribal members fishing this spring should bring their fish to the Tribal Compound to be scanned for the presence of a PIT tag so that it can be removed before eating.



Location of PIT tag implant



# Hunting and Fishing Regulations

Hunting within the exterior boundaries of the Reservation is permitted to Tribal members provided that hunting is conducted in a safe manner.

- ◆ A non-Tribal member married to a Tribal member may assist their spouse in hunting or hunt in place of their spouse, as long as the Tribal member is present on the Reservation.
- ◆ Firearms are not to be discharged within 300 feet of buildings, land assignments, or areas known to be occupied by Tribal members or employees. Firearms are not to be discharged from motorized vehicles, or at night.
- ◆ **When hunting or fishing on the Reservation, it is strongly recommended that you carry your state issued ID, SLPT member ID, Harvest tag, and any hunter safety documentation.**

**At the February 2024 meeting the Tribal Council supported the continuation of the sage-grouse hunting moratorium for 2024 in light of the ongoing sage-grouse population study. Based on preliminary data from the study, the sage-grouse population is showing indications of a concerning downward trend.**



# Harvest Reporting

Beginning this year, the Council approved a harvest tagging and reporting process for fish and game taken on the Reservation. Currently, this process is completely optional, but the Department strongly recommends that all members who harvest any fish and/or game on the Reservation properly fill out the harvest tag and return the reporting card. This process has three main benefits:

1. Proper tagging of harvest provides clarity to state game wardens in the event that any member is stopped outside the Reservation boundary with harvest taken on Summit Lake Tribal lands.
2. Harvest reporting provides valuable information to the NRD to more accurately monitor fish and wildlife populations at Summit Lake.
3. Annual harvest regulations (as approved by the Council) are detailed on the back of the harvest tag to provide a friendly reminder of any limits, restrictions, and/or seasons on fish and wildlife species within the Reservation boundary.

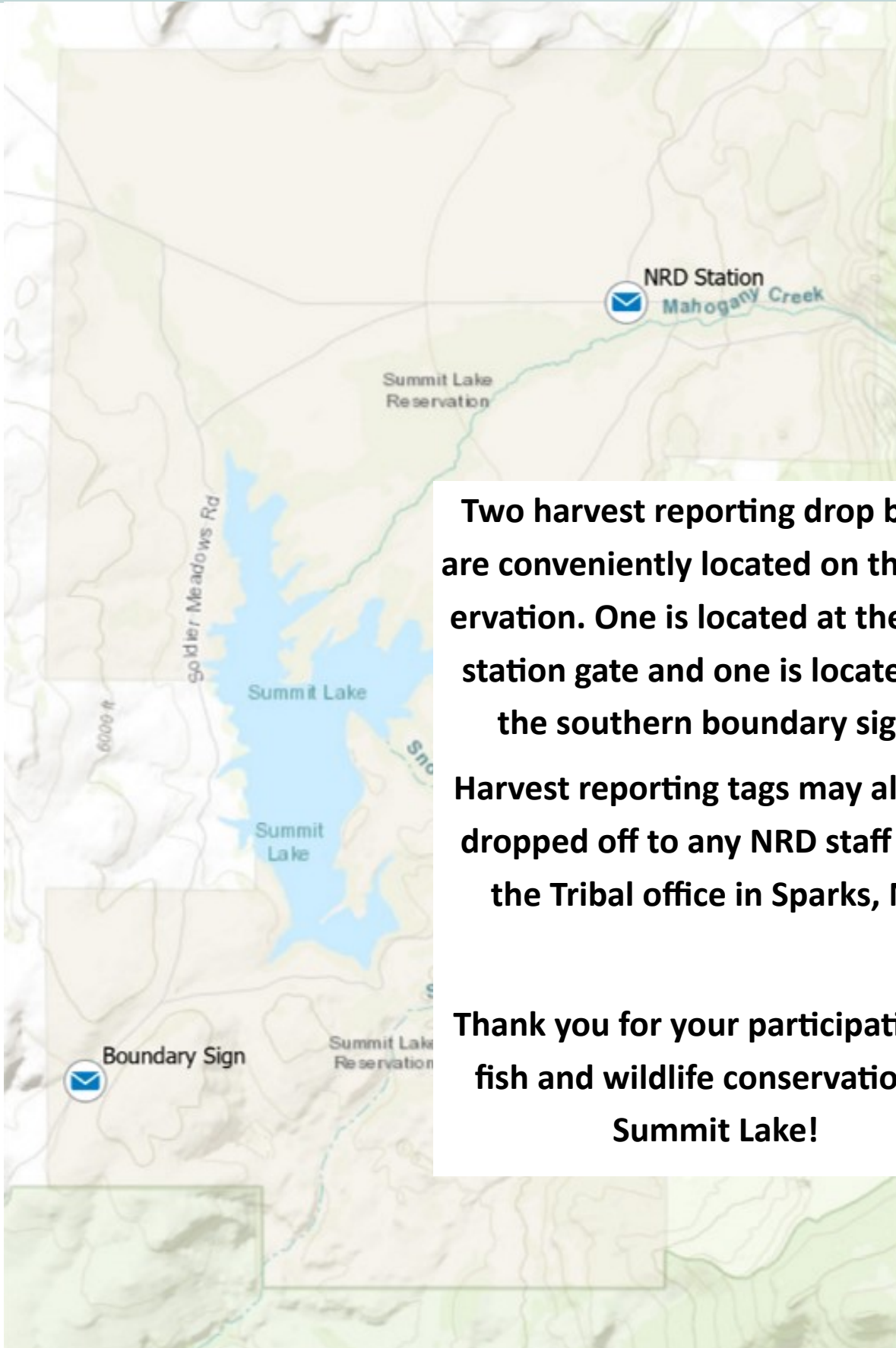
Additional harvest tags may be mailed on request or picked up at the Tribal office in Sparks, NV, and any questions about harvest tagging and reporting may be directed to the Natural Resources Department.

**Harvest reporting cards are found on the bottom, tear-off portion of the harvest tag. These cards can be dropped in either of two harvest reporting drop boxes located at the Reservation (see map on next page), or dropped off at the Tribal office in Sparks, NV.**





# Harvest Reporting



**Two harvest reporting drop boxes are conveniently located on the Reservation. One is located at the NRD station gate and one is located on the southern boundary sign .**

**Harvest reporting tags may also be dropped off to any NRD staff or at the Tribal office in Sparks, NV.**

**Thank you for your participation in fish and wildlife conservation at Summit Lake!**

# Harvest Reporting

**FRONT**

**Summit Lake Paiute Tribe  
Harvest Tag**

Record location of harvest (latitude/longitude preferred)

Circle appropriate species/sex for upland game and/or number of fish for LCT

Current harvest year will be punched out

Tag #: 0000 Tribal Enrollment #: \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Location (Lat/Lon): \_\_\_\_\_  
 Species: Mule Deer Antelope Sage Grouse  
 Sex: Male Female  
 LCT #: \_\_\_\_\_

Harvest Year  
 24  
 25  
 26  
 27

**SEE REVERSE FOR LIMITS/RESTRICTIONS**

Harvest taken on Summit Lake Paiute Tribal lands per Tribal Ordinance V.

For questions or concerns, please contact:

SLPT Natural Resources Director  
 2255 Green Vista Dr. Suite 402  
 Sparks, NV 89431  
 (775) 827-9670

This information should match the top portion. Tear off bottom and return to NRD station, Tribal office or harvest tag drop box.

This portion will show the current annual harvest limits/seasons as approved by the Tribal Council

Tag #: 0000 Tribal Enrollment #: \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Location (Lat/Lon): \_\_\_\_\_  
 Species: Mule Deer Antelope Sage Grouse  
 Sex: Male Female  
 LCT #: \_\_\_\_\_  
 Please tear off and return to station, office, or dropbox

**BACK**

**Summit Lake Paiute Tribe Harvest Limits**

LCT (Per Adult Member):  No Take  1  2  3  4  5

LCT (Per Minor Member, 17 & Under):  No Take  1  2  3  4  5

Sage Grouse:  No Take  1  2  3  4  5

Sage Grouse Season: \_\_\_\_\_

Mule Deer & Antelope: No limit; any sex and size

No harvest regulations on any other game animal

**THESE REGULATIONS APPLY ONLY TO HARVEST TAKEN ON SLPT RESERVATION**

Any fish or game harvested outside SLPT Reservation boundary requires appropriate state license(s) and is subject to Nevada state regulations. For additional information contact NDOW at (775) 688-1500.

Tear off this portion and return to a harvest tag drop box, NRD station, or the Tribal office.

Thank you for your participation in the conservation of fish and wildlife at Summit Lake!



The NRD is exploring options to make hunter safety education more accessible both financially and logistically for Tribal members. Existing resources for completing hunter safety education can be found at <https://www.hunter-ed.com/> or <https://www.huntercourse.com/>. Taking a hunter safety course is not required to hunt on the Reservation but is encouraged. Both courses are recognized by Nevada Department of Wildlife.



<https://www.hunter-ed.com/>



<https://www.huntercourse.com/>

# Preventing the Spread of Invasive Species & Disease

## *Preventing Invasive Species on the Reservation*

Invasive species are non-native species whose introduction causes harm to the environment that they have been introduced to. Invasive species are often called “hitchhikers” because of the primary way they spread into new environments, which is by “hitching” a ride on clothing or equipment. <sup>1</sup> A few simple practices can help stop the spread of invasive species on the Reservation:

**Invasive Plant Species:** Remove all seeds and stickers from hiking shoes and clothing before wearing them on the Reservation. Boot brushes can work well for this.

**Aquatic Invasive Species (AIS):** In order to prevent the spread of AISs on the Reservation, waders, shoes/boots, and nets should be disinfected before being placed in the water.

To disinfect waders and equipment, you will need <sup>2</sup>:

- Bucket of soapy water
- Scrub brush
- 3% bleach solution in a spray bottle (1:32 dilution)
- A hose or gallon of fresh water

Steps to disinfect <sup>2</sup>:

1. Remove all visible debris with hose and/or scrub brush
2. Wash with soapy water
3. Rinse with fresh water
4. Spray equipment thoroughly with diluted bleach solution, including bottoms of boots/waders
5. Wait 5 minutes
6. Rinse with fresh water

## *Preventing the Spread of Highly Pathogenic Avian Influenza*

Highly Pathogenic Avian Influenza (HPAI) is a disease that occurs naturally in waterfowl and can infect other bird species and animals (including humans), but currently poses a low risk to the public according to the CDC <sup>3</sup>. It is spread through infected birds’ saliva, nasal secretions, and feces <sup>3</sup>. HPAI has been found on the Reservation. To prevent its spread, any shoes worn on the Reservation (especially near the lake where waterfowl feces is present) should be cleaned then disinfected (using a 3% bleach solution) as soon as possible after leaving the Reservation.

### References

1. [https://www.michigan.gov/-/media/Project/Websites/invasives/Documents/Action/Training\\_AISDeconModule\\_NoQuiz\\_ADA.pdf?rev=3bf97924c633467f84cdf0a124fc45e](https://www.michigan.gov/-/media/Project/Websites/invasives/Documents/Action/Training_AISDeconModule_NoQuiz_ADA.pdf?rev=3bf97924c633467f84cdf0a124fc45e)
2. <https://dem.ri.gov/sites/g/files/xkgbur861/files/programs/bnatres/fishwild/pdf/wildlife-wetland-sanitation.pdf>
3. <https://www.cdc.gov/flu/avianflu/avian-in-birds.htm>



# Fisheries Management and Activities

The NRD fisheries program had a very successful season in 2023. Staff monitored the annual spring spawning run at the fish trap from April 17th-June 29th. This year, we had 222 spawning LCT pass through the trap on Mahogany Creek, a dramatic decrease from 2022. The population of LCT in the watershed varies quite a bit depending on the time of year (pre-spawn versus post-spawn), and therefore enumerating the size of the spawning run and monitoring trends across time is a key factor in understanding the population dynamics of this species.

Staff also completed three surveys in Summit Lake itself to sample the lake population pre-spawn, post-spawn, and in the fall. These fish are measured, weighed, and checked for a PIT

(passive integrated transponder) tag, and tagged if

one was not already present. Tagging fish is an important tool that allows us to do capture-mark-recapture studies, which help us estimate the size of the population at any given time based on the proportion of fish that are new captures versus fish that are recaptures during a particular sampling

period. PIT tags also allow us to track LCT movements throughout the watershed to better understand habitat usage and identify areas for targeting restoration efforts. Staff downloaded data periodically from three stationary PIT tag readers on Mahogany Creek throughout the year, which provides us with this information on fish movement.

From May through October, juvenile fyke nets were placed and monitored in lower Mahogany Creek. These nets capture fry as they move down into the lake and are a vital part of our work with the University of Nevada, Reno to build a population viability analysis (PVA) model.



# Fisheries Management and Activities

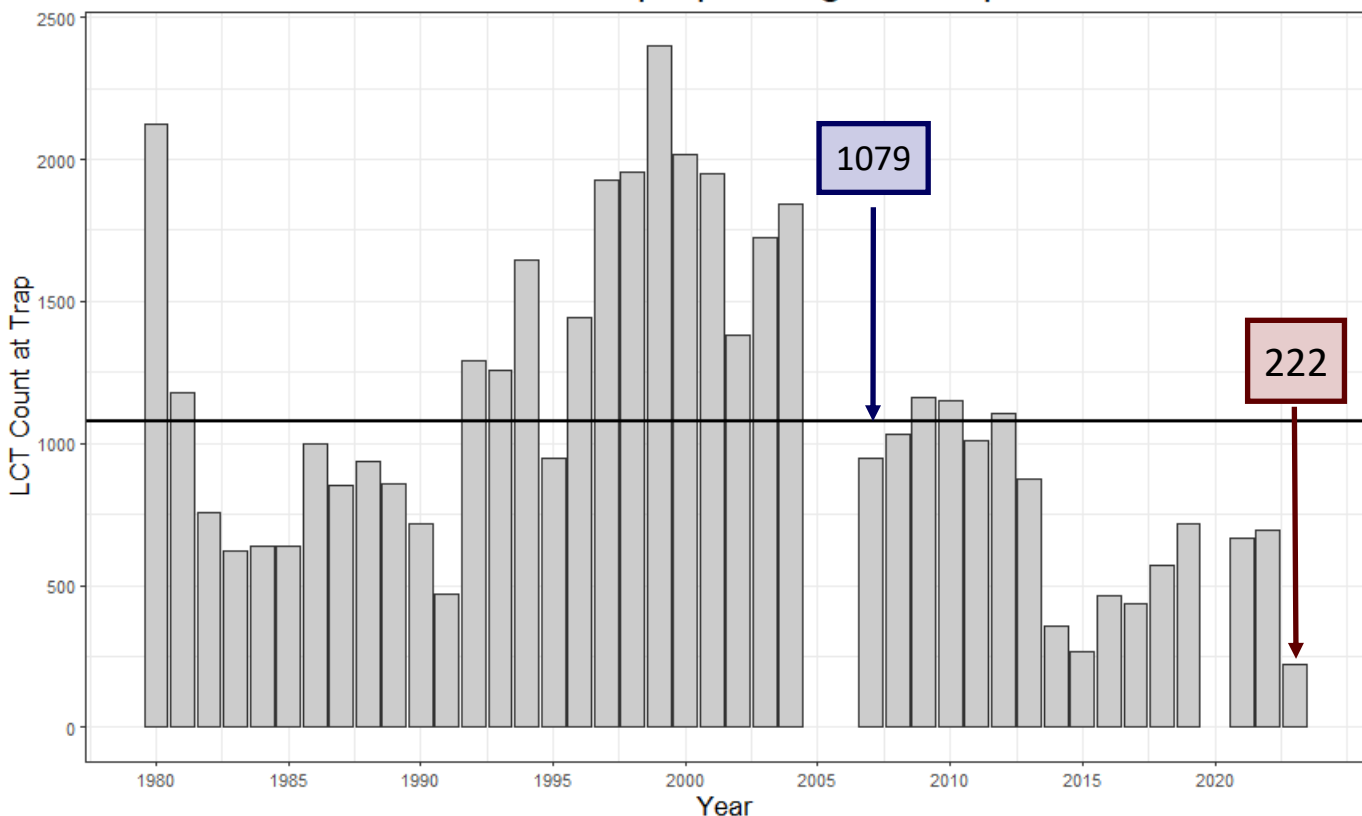
This model is a complex model that takes into account all the different life history stages of LCT to provide much more accurate information on the health and size of the population at every life stage.



NRD staff also completed another electrofishing survey of Mahogany Creek and Snow Creek. Seventeen sections of creek were non-lethally surveyed across four days in early August. These surveys are our primary source of data on stream resident LCT and help us determine the density of LCT throughout the watershed. We also completed a spot survey of Mahogany Creek during our irrigation removal project.



Historic Fish Trap Spawning LCT Captures



# Fisheries Management and Activities

This year the Natural Resources Department is rolling out a new section on the website that is focused on sharing information about the Lahontan Cutthroat trout population at the Reservation. Our first addition to this section will be a graph that will display the current cumulative count of Lahontan Cutthroat trout we have captured migrating upstream before spawning and back downstream after spawning through the Mahogany Creek fish trap. With the addition of some new equipment we have installed on the Reservation, this daily count will be updated every few hours so you will know (in real time) exactly how many fish we have processed this year! This is currently in development to be integrated into our website but we anticipate this will be operational by the beginning of the spawn run in 2024.

Additionally, we will also create a section of this webpage that will periodically live-stream a video of the Natural Resources Department catching and processing LCT in the fish trap! You will get to see us capture, measure, weight, tag, and release the LCT in real time. We plan to announce on our social media pages the specific dates and time when the livestream will be up and running on the website, but we currently plan to host this livestream once a week on our website during the peak of the spawn run to make sure you all get to see plenty of fish. Stay tuned for more information and updates about the cool projects we plan to share with you all!



Once up and running, the LCT count and live-stream will be available at <https://www.summitlaketribe.org/lct.html>, or by scanning the QR code above.

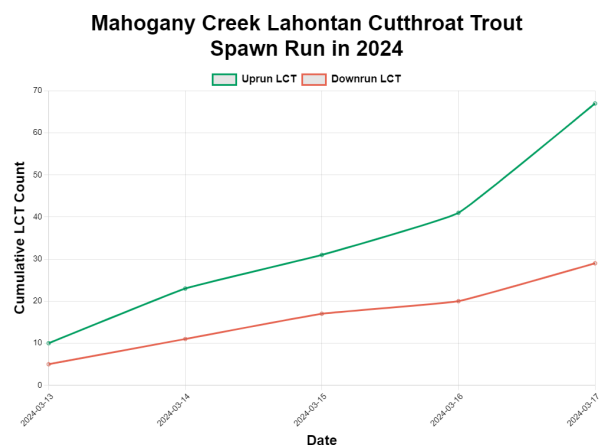


Figure 1. Sample of the real time line graph showing current cumulative LCT count for 2024



Figure 2. Image from the livestream camera installed in the fish trap looking into Mahogany Creek

# Sage-Grouse Study

Greater Sage-grouse (*Centrocercus urophasianus*) are the largest of seven grouse species in North America and occupy sagebrush-steppe ecosystems, which dominate the western portion of the continent. Sage-grouse were historically found throughout sagebrush communities in 16 states and along the southern border of three western Canadian provinces. The remaining core sage-grouse populations are located in areas of

Colorado, Idaho, Montana, Nevada, Oregon, and Wyoming, with remnant populations in other states. Over the last 30 years, sage-grouse populations have declined dramatically and currently occupy less than 50% of their historic range. Habitat loss, degradation, and fragmentation have reduced the quantity and quality of sagebrush-steppe habitat leading to widespread population declines. Wildfire, invasion of nonnative flora and fauna, grazing pressures, energy development and mining, agriculture and rural/ suburban development, disease, and climate change are all factors impacting sagebrush-steppe habitats. Because of these sources of habitat degradation and their contribution to sage-grouse population declines, sage-grouse have been petitioned multiple times for listing under the Endangered Species Act. To date, they have yet to be listed, largely in part due to state and federally enacted conservation efforts and monitoring programs throughout the West.



Tribal members have observed a sharp decline in sage-grouse populations on the Reservation over the past few decades. In the past, sage-grouse were commonly seen in groups of 30-40, but are now rarely seen, and usually in smaller groups of three to five birds. In response, the Summit Lake Paiute Tribe Natural Resources Department (NRD) began a sage-grouse study in 2014 to assess population trends over time and determine factors impacting the local sage-grouse population. In this study, birds are captured, outfitted with VHF (Very High Frequency)/GPS (Global Positioning System) collars, and morphometric measurements are recorded in the interest of monitoring seasonal movements, nest success, and habitat use. The goal is to regularly monitor lek attendance, seasonal movements, nest success, brood success, and mortality events. These data will help inform the Tribe on what habitat types on or near the Reservation are critical for sage-grouse, as well as where restoration and disturbance mitigation efforts should be implemented. Additionally, these data will help the Tribe to understand the population status of the local sage-grouse that may inhabit the Reservation.





# Sage-Grouse Study

## **Lek Counts**

Because of staffing shortages, only four ground-based lek counts were conducted at the Tollhouse lek in the spring of 2023. These counts showed a 100% increase in the high count of male sage-grouse at the Tollhouse lek compared to counts in 2022. While this is great news, the lek-count effort in 2023 was very limited and it is difficult to draw population-level conclusions based on those counts. Fortunately, the Department is well staffed going into the 2024 field season and is planning to increase the lek monitoring effort by almost 600% compared to previous seasons by increasing the number of leks counted to a minimum of 24 leks. Counts from these leks will help provide a more accurate assessment of the sage-grouse population around Summit Lake.

## **Capture Effort**

No grouse were captured or collared in the spring of 2023, however Department staff successfully captured and collared 11 hens in October 2023. These hens were fitted with GPS collars which provide more accurate and frequent location information compared to VHF collars. These location data, in addition to tracking sage-grouse survival, will help inform analyses on seasonal sage-grouse habitat use. Establishing areas of high sage-grouse use across different seasons will help inform species-conscious management decisions and reduce potential disturbance to sage-grouse across the Reservation. Additional capture efforts are planned for April 2024 and August 2024.

## **Nest/Brood Monitoring**

No nests or broods were monitored in 2023. With increased staffing going into 2024 and additional sage-grouse collaring and tracking, staff will be able to monitor nesting hens and broods. Department staff will monitor sage-grouse nests using passive video monitoring systems. This reduces potential for disturbance to nesting hens and allows for a more comprehensive assessment of nest success and nest predators. Following the hatching of chicks, department staff are also planning on conducting regular brood checks to track brood success and assess critically important habitat used by sage-grouse for brood rearing.



## **Habitat Surveys**

No habitat surveys were conducted in 2023. In 2024, department staff will be conducting comprehensive habitat surveys at sage-grouse nest locations, brood locations and summertime locations. These surveys will provide valuable information on the fine-scale habitat characteristics in areas that are key to sage-grouse life stages. This information can also improve decision-making processes for sage-brush habitat restoration and management around Summit Lake.



# Noxious Weed Project

Another year closer to reducing the noxious weed growth on the Summit Lake Paiute Reservation! Invasive species are a critical problem to address because of their ability to out-compete native species. Since invasive species and noxious weeds typically have limited natural competitors and predators, they tend to take away key resources shared with native plant species. This causes the number of native species to decline and the number of weeds to grow. In order to combat



this problem, Summit Lake partnered again with Great Basin Institute (GBI) to complete two treatments within the Reservation, one in the spring and one in the fall. The noxious weeds targeted



by the crews included Bull Thistle, Scotch Thistle, Canadian Thistle, Reed Canary Grass, and Tamarisk. For the spring treatment, only the thistles were targeted in the lower Mahogany Creek area. In the fall, GBI treated a small patch of Reed Canary Grass growing in the north

shore Mahogany Creek overflow and continued to treat thistles in lower Mahogany Creek. During the fall treatment GBI also scouted for tamarisk around the Summit Lake perimeter, but none were spotted. In total, roughly 37 acres were scouted by GBI and 1.46 acres of thistle were removed. Noxious weed treatments are planned to continue this upcoming field season.





# Paleoclimatology Project

This past year, our partners at the University of Nevada-Reno, along with other academic institutions, have analyzed sediment cores collected from the deepest part of Summit Lake to better understand the geologic and climatic history of the Summit Lake watershed. After collecting two overlapped 11-meter-long sediment cores (one of which ended up drilling into an ancient tree!) and radiocarbon dating the extracted sediment, they were able to reconstruct some of the major geologic and climatic events in the watershed's history. Approximately 12,000 years ago Summit Lake was created by a landslide from Summit Lake Mountain. The deep-water lake conditions of the



next 4,000 years helped to solidify the formation of the lake, but the period from approximately 8,000 to only 600 years ago shows that there were prolonged drought events with large fluctuations in lake level. In addition to these exciting results and insights into the lake's history the researchers plan to extract DNA remnants from the cores and examine tree rings from the surrounding region to better understand how changes in climate may have impacted the ecology and species composition of the watershed. We look forward to sharing more results from this study with you all as our partners at the University continue their research!



# Bat Inventory and Monitoring Project

Bats are a vital part of the Reservation’s ecology and occupy a wide range of habitats across the state, such as wetlands, woodlands, farmland, and even urban areas. They can tell us a lot about the environment because they are top predators of insects and are sensitive to changes in land-use practices. Bats navigate and find insect prey using echolocation. They produce sound waves at frequencies above human hearing, called ultrasound. Bats are monitored by using a bat detector that converts the ultrasonic frequencies of their calls into frequencies that humans can use, called sonograms. Each bat species has a unique call frequency that we use to identify different species, much like fingerprints can be used to identify individual people. The Summit Lake Paiute Tribe Bat Inventory and Monitoring Project has provided the Tribe with important information about the 15 species of bats that use the Reservation:

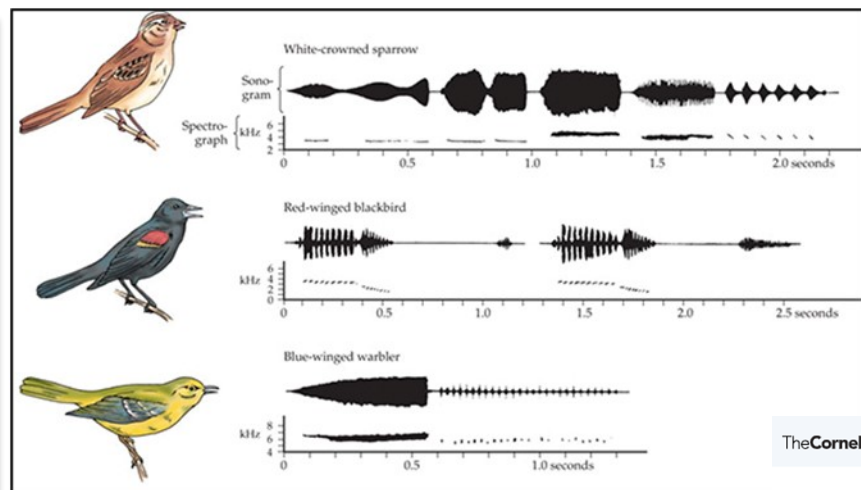
Summit Lake Paiute Tribe Reservation Bat Species Profile						
Common Name	Scientific Name	Number of Calls Detected in 2020	Number of Calls Detected in 2021	Number of Calls Detected in 2022	Number of Calls Detected in 2023	2020 - 2023 Total Calls Detected
Pallid bat	<i>Antrozous pallidus</i>	194	156	160	249	759
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	221	247	165	72	705
Big brown bat	<i>Eptesicus fuscus</i>	433	241	488	54	1,216
Spotted bat	<i>Euderma Maculatum</i>	147	144	228	25	544
Silver-haired bat	<i>Lasionycteris Noctivagans</i>	952	1,723	4,135	615	7425
Hoary bat	<i>Lasiurus cinereus</i>	193	171	269	231	864
California myotis	<i>Myotis Californicus</i>	51	73	159	26	309
Western small-footed myotis	<i>Myotis Ciliolabrum</i>	603	735	1,178	1,798	4,314
Western long-eared myotis	<i>Myotis evotis</i>	3,707	2,923	5,995	932	13,557
Little brown bat	<i>Myotis lucifugus</i>	4,476	1,794	3,266	758	10,294
Fringed myotis	<i>Myotis Thysanodes</i>	120	69	201	47	437
Long-legged myotis	<i>Myotis volans</i>	59	54	109	125	347
Yuma myotis	<i>Myotis Yumanensis</i>	13	11	19	3	46
Canyon bat	<i>Parastrellus hesperus</i>	2,075	1,793	1,530	57	5,455
Brazilian free-tailed bat	<i>Tadarida brasiliensis</i>	239	614	2,035	417	3,305

The information collected by Tribal biologists is beginning to show bat population trends on the Reservation. The last three years of research have provided the Tribe with a list of species that live at the Reservation as well as a broad idea about how the population of each species changes with time. The Natural Resources Department also contributes this information to The North American Bat Monitoring Program (NABat), which is made up of a large community of partners across the continent working together to better understand bat population status and trends in the U.S., Canada, and Mexico.

For example, the NABat community has collected information about the Little Brown Bat over the last twenty years, which shows that their population is in decline. Little Brown Bats are threatened by White-nose Syndrome (WNS), a fatal fungal disease, caused by the fungus *Pseudogymnoascus destructans*. The disease causes bats to use more energy and become dehydrated during hibernation, which leads to starvation and eventually death. However, the Little Brown Bat population on the Reservation appears to be stable, which is a good indication that the ecology of Summit Lake continues to thrive.

# Soundscape Ecology Project

The study of soundscape ecology provides scientists with unique insight into species diversity and habitat conditions. Many animals produce unique vocalizations that can be used to detect their presence on the Reservation, even when they can't be seen. Birds, frogs, and insects are monitored by using a special audio recorder that records sound at specific times of day and night. Audio recorders are often better than cameras because they can record species over larger areas and over longer time frames. Computer algorithms analyze audio recordings to identify specific species' calls, as each species has a unique frequency pattern that can be measured similarly to fingerprints between people. Over time, we can learn which species and how many species are present in different habitats which allows us to map biodiversity across the Reservation. Understanding biodiversity over space and through time can help inform us about how to best maintain or restore habitats for future generations. If you are interested in giving bird sound identification a try for yourself, the Cornell Lab of Ornithology offers a free and easy-to-use cell phone app called Merlin.



*This image shows an example of how wildlife recordings are analyzed to identify specific species*

The Cornell Lab

**Merlin**

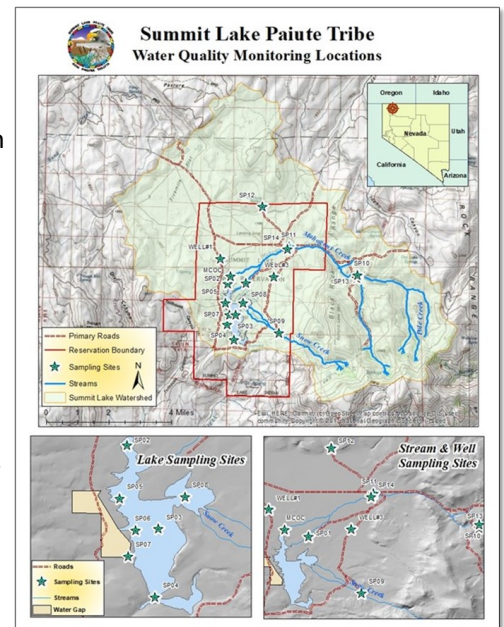


# Water Quality Monitoring and Game Cameras

## Water Quality update 2023:

The Summit Lake watershed requires the protection of water quality to guard human and environmental health. NRD staff were able to successfully complete water quality testing three separate times, stream flow measurements, BMI testing, and began importing all water quality data into the EPA water quality exchange. In September 2023, EPA approved our Tribe's Quality Assurance Project Plan update which specifies procedures and testing protocols for a water quality monitoring program. Each spring, summer, and fall NRD staff collect water samples from Summit Lake, Mahogany Creek, Snow Creek, water wells, and natural springs. The samples are analyzed in a laboratory for several different water quality parameters such as inorganic nutrient levels (i.e., magnesium, fluoride, iron, etc.), organic nutrient levels (i.e., ammonia, nitrogen, phosphorus, etc.), and bacteria presence. Field measurements which include pH, temperature, specific conductivity, turbidity, and dissolved oxygen are taken on site when the samples are collected. The water quality parameter's results are compared with past results to track changes over the years. Last year was a record-breaking snow fall year up at the Summit Lake Paiute Reservation. Our staff wanted to take advantage of the extra snow melt and had dedicated more effort into monitoring it during the 2023 field season. Flow measurements were taken almost every month from April 2023 to September 2023, allowing staff and members to see how the increase snow melt effects water volume around the Summit Lake Watershed. This year, Summit Lake Paiute Tribe is adding their water quality results to the United States Environmental Protection Agency (EPA) water quality exchange. This data will not be available to the general public but will increase the ability for staff to track water quality on the Reservation. Staff recommend only drinking from our approved drinking water well at the Reservation and remember to always filter or boil other stream/springs water before drinking!

Benthic Macro-Invertebrate's (BMI) are small critters that live on the bed of the lake and creeks. These invertebrates can help show NRD staff about the health and diversity of the lake or creek's ecosystem. The importance of BMI surveys is why our staff conducted samplings along the upper, middle, and lower sections of Mahogany Creek in 2023. Samples were sent in for ID testing and when the results are finalized, staff will know the different species of BMI within Mahogany Creek along with a rough estimate of the density of each species.



# Water Quality Monitoring and Game Cameras

## Nonpoint Source Pollution

Nonpoint source pollution (NPS) is categorized as a type of pollution that can't be traced back to certain outputs. Examples of NPS include snowmelt, drainage runoff, animal interactions (feces) and human interactions (oil or fertilizer). This past summer, our staff collected vegetation surveys, water quality samples, and invertebrate samples from Tule and Slide springs, while continuing to collect water quality data from One Mile springs. Slide and Tule are located in the southern area of the Reservation and One mile is located on the northern side. Water quality data is collected to test bacteria, metals, and inorganics parameters in the springs, and vegetation surveys are taken to monitor the plant communities growing around the springs. These data/surveys can be used for future possible restoration projects to prevent NPS and possibly mitigate climate change's effects toward the springs. In June 2023, cattle fencing was successfully set up around Middle Tule and Lower Tule springs. The fencing built around these two springs is specifically designed to allow native wildlife such as deer, pronghorn, and coyotes to pass through, while keeping out cattle and wild horses.



In the Summer 2022, our staff installed 9 wildlife cameras and 2 timelapse cameras to monitor wildlife interactions with Tule and Slide Springs. Since being set up, the springs game cameras have captured some incredible shots of Summit Lake's animal community and have informed NRD staff to the beautiful animals calling the Reservation home! After fencing was put up around middle Tule, and lower Tule, our wildlife game cameras showed that horse and cattle interaction at middle and lower Tule springs vanished almost completely! For NPS testing in 2024, NRD staff will be extending our surveys/sampling to Tollhouse and Lakeview springs and contractors will install additional fencing all around Slide and Upper Tule springs.

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In June 2023 the Tribal Council and the Natural Resource Department had the honor to host the “Connecting with the Reservation Event”. This was to provide a weekend for Tribal Members to visit the Reservation and to show Tribal Members what projects the Natural Resource Department had been working on. The activities last year included boat rides around Summit Lake, fish trap tour, sage grouse collar scavenger hunts, and environmental educational talks. The Tribal Council and Members also hosted tribally led activities including storytelling, singing, and smores around the fire pit. The last time an event like this was put on was in 2012, so for many Tribal Members this was a long-awaited weekend! The Tribal Council and the Natural Resource Department is pleased to announce that there will be another Outreach Event Occurring June 14th –16th 2024 (Friday- Sunday) and all Summit Lake Tribal Members are invited again! For more information about the 2024 Outreach Event and any future Tribal events follow us on our social media platforms:



Instagram: @slptnrd

Facebook: @Summit Lake Paiute Tribe- Natural Resource Department







# Chronic Wasting Disease Information

## What is Chronic Wasting Disease?

Chronic Wasting Disease (CWD) is a highly contagious neurological disease like Mad Cow Disease (BSE) but instead affects deer, elk, reindeer, and moose. To date, there have been no reported cases of CWD infection in people. However, CWD has been found to pose a risk to non-human primates like monkeys, which raises concerns that there may also be a risk to people.<sup>1</sup>

CWD and BSE are prion diseases that cause abnormal folding of prion proteins that lead to brain damage. Prion diseases are also known as transmissible spongiform encephalopathies (TSEs) and are a family of rare progressive disorders that affect both humans and animals. TSEs typically progress rapidly and are always fatal.<sup>1</sup> CWD is transmitted directly through animal-to-animal contact, and indirectly through contact with objects or environment contaminated with saliva, urine, feces, or carcasses of CWD-infected animals. There are no treatments or vaccines currently available.<sup>1</sup>

## Why are you being told about CWD?

Because of CWD's long incubation period, infected mule deer may be difficult to detect from appearance or behavior alone. So, by distributing information about CWD, Tribal members can make informed decisions about harvesting or consuming mule deer from the Reservation. Additionally, by providing information and gathering samples for CWD testing, Tribal members can assist with statewide monitoring and early detection efforts.

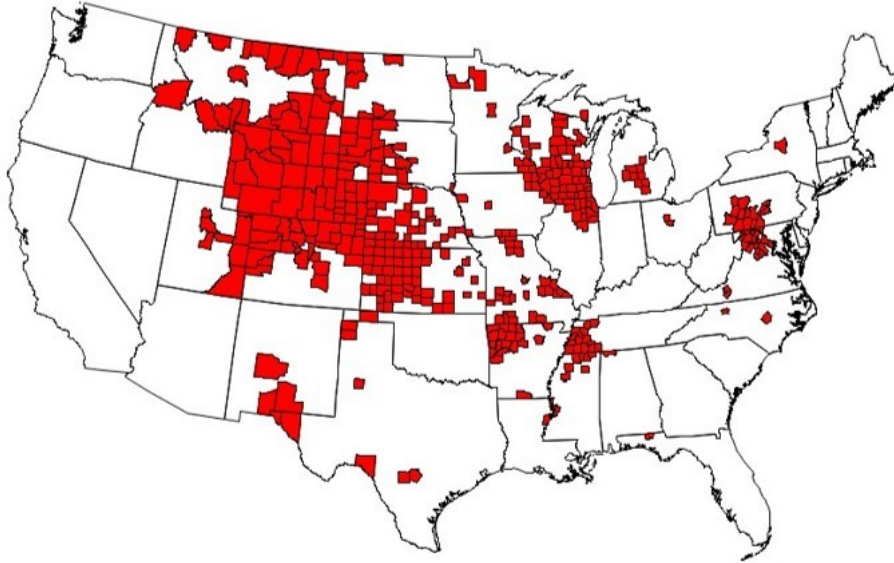


## What are the signs of CWD?

The most obvious sign of CWD is progressive weight loss. Other signs include loss of fear of humans, excessive salivation, decreased social interaction, and loss of awareness.<sup>3</sup> CWD has a long incubation period, averaging 18 – 24 months between infection and the onset of noticeable signs. During the incubation period, animals look and act normally.<sup>3</sup>

# Chronic Wasting Disease Information

## Where is CWD Found?



\*Occurrence of CWD based on best-available information ([www.cdc.gov](http://www.cdc.gov)).

*As of November 2023, 31 states have reported CWD in free ranging cervids such as mule deer and elk.<sup>1</sup> Although CWD has not been detected in Nevada yet, it is likely to arrive in the future based on its continued spread across the United States and presence in neighboring states.*

## How can a Tribal member get a harvested deer tested?

*Hunter participation is voluntary but critical in CWD testing at Summit Lake.*

**General Field Dressing Safety Precautions:** It is recommended to not use household knives or other kitchen utensils, wear protective gloves, minimize handling brain and spinal tissues, and wash your hands and instruments thoroughly when field dressing is completed.

\*If you wish to shoulder-mount your deer, cape and remove antlers first.

Tribal members have the following 2 options for submitting lymph nodes for testing. All testing will be performed by NDOW.

1. Tribal member collection then submission to NRD or NDOW.
  - a. Tribal member follows the following video or written instructions to collect the lymph nodes.
  - b. Tribal member drops off the lymph nodes at one of the following locations:
    - i. NRD station at the Reservation
      1. Staff are likely present at the station or on the Reservation Monday – Thursday during the field season (approximately April to mid-November).
      2. NRD will submit the lymph nodes to NDOW.

# Chronic Wasting Disease Information

## ii. NRD department at the Tribal office

1. Please notify the NRD department in advance that the lymph nodes will be dropped off. Please call the main office number at 775-827-9670, Monday – Friday, 8am – 5pm, or email [slpt.nrd@summitlaketribe.org](mailto:slpt.nrd@summitlaketribe.org).
2. Location: 2255 Green Vista Dr. #402, Sparks, NV 89431
3. NRD will submit the lymph nodes to NDOW.

## iii. Nevada Department of Wildlife (NDOW)

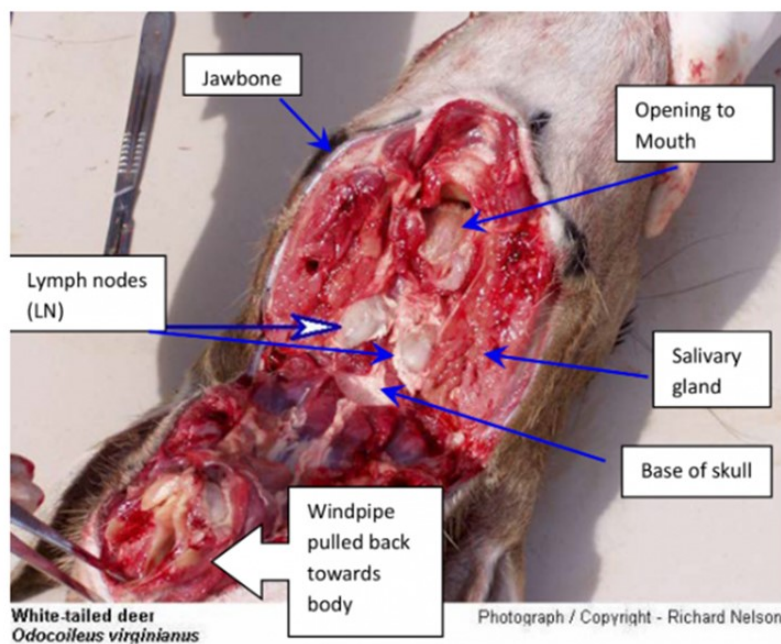
1. Please notify NDOW in advance that the lymph nodes will be dropped off. Please call 775-688-1506, Monday – Friday, 8am – 5pm.
2. Location: 1100 Valley Rd., Reno NV 89512.
3. IMPORTANT: You must present your SLPT harvest tag so that NDOW is aware that the harvest was valid on the Reservation.

## 2. NDOW Collection

- a. Please notify NDOW in advance that the harvest will be presented for lymph node removal. Please call 775-688-1506, Monday – Friday, 8am – 5pm.
- b. Location: 1100 Valley Rd., Reno NV 89512.
- c. IMPORTANT: You must present your SLPT harvest tag so that NDOW is aware that the harvest was valid on the Reservation.

NOTE: Please leave your name and phone number or email with SLPT or NDOW so that you can be notified of the results.

Locate Lymph Nodes



# Chronic Wasting Disease Information

## Video instructions to remove the lymph nodes:



<https://youtu.be/xsLhOqNiTWA>

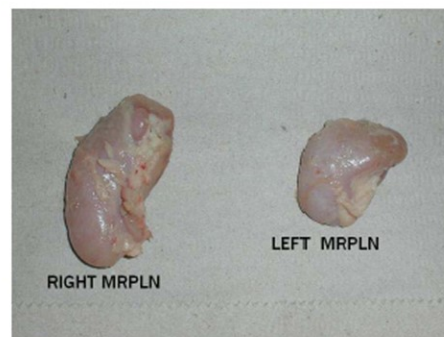


<https://www.youtube.com/watch?v=pUls5iVO1J4>

## Written instructions to remove lymph nodes (\*Source: Idaho Fish and Game):

1. Cut across the neck and under the jawbone. Cut towards the ears, through the windpipe until you hit bone.<sup>2</sup>
2. Pull back the windpipe and cut the muscles towards the base of the skull. Locate the left and right lymph nodes, half-way between each angle of the jawbone and the base of the skull and beneath the opening to the mouth. Lymph node consistency is much firmer and rounder than the surrounding tissue.<sup>2</sup>
3. Avoid the salivary glands, which are found next to the lymph nodes and are more segmented. Salivary glands are not a CWD testable sample tissue.<sup>2</sup>
4. Remove the left and right lymph nodes. Remove excess fat and connective tissue from the lymph nodes.<sup>2</sup>
5. NRD will have sample bags (located in a mailbox near the front gate of the field station) available at the Reservation. Write the sex of the harvest and your name, phone number, or email with ballpoint pen (provided in mailbox) to prevent smearing.<sup>2</sup>
6. Keep the samples frozen until you can drop them off at the NRD station at the Reservation, the Tribal office in Sparks, or the NDOW office in Reno.

View Lymph Nodes



- Lymph nodes are normally light pink or bluish color. They could be red if the animal is head shot.
- Rounded, kidney shaped and roughly the size of the tip of a finger.
- If you cut them in half, you will see marbled coloring.

The Natural Resources Department wishes you safe and successful hunting and thanks you for your participation!

## References and Additional Information

<https://www.cdc.gov/prions/cwd/index.html> <sup>1</sup>

<https://idfg.idaho.gov/cwd/sampling/how-to> <sup>2</sup>

<https://www.usgs.gov/diseases-of-terrestrial-wildlife/chronic-wasting-disease> <sup>3</sup>



# A Note from the Director

Hello Members! For over two and half years, I've had the privilege of serving as your Natural Resources Department Director.

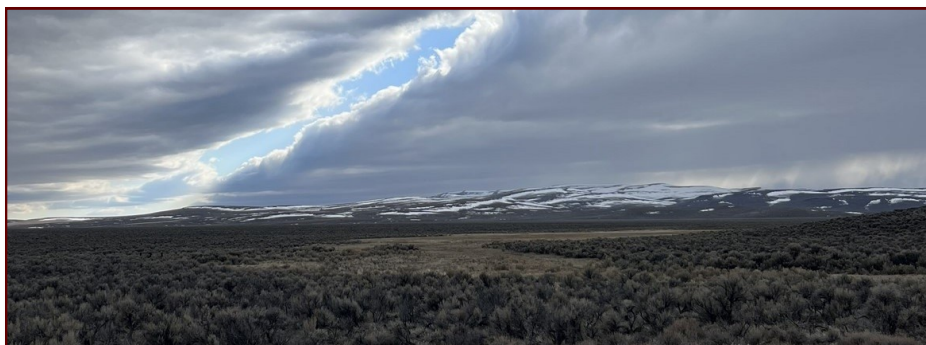
Thank you to the Council and the Members for supporting the department, as your support is greatly appreciated and crucial to our success. I also want to sincerely thank our staff. They are smart, skilled, hardworking, and dedicated to the Tribe's mission. We are fortunate to have such a team!

Among last year's accomplishments, the Reservation event was the most significant for me. It was memorable to see everyone having a good time connecting with the landscape, lake, creek, plants, animals, and with each other. My highlight was driving up with a family. As the children talked excitedly about going camping for the weekend, it was rewarding for me to share, in addition

to the fun activities we had planned, that they would be staying on their ancestral homelands. Being a part of connecting the next generation to their homelands represented what the event was all about.

I wish you and your families the best for the upcoming year and hope to see you at the Reservation event on June 14-16! The staff is looking forward to putting it on and seeing you there!

We have a full slate of projects at the Reservation this year and are excited to get them underway. Please review some of the main projects on the next page. The department is excited to serve you through fulfilling the Tribe's mission!



# Upcoming Activities

## Upcoming Priorities:

### Year Round (or every season)

- ◆ LCT: mark-recapture sampling events in the lake.
- ◆ Sage Grouse: tracking the collared birds.
- ◆ Reptiles/amphibians/migratory birds/bats: surveys and monitoring to identify the species and their habitats on the Reservation.
- ◆ Streamflow, water quality, and springs: streamflow measurements in Mahogany and Snow Creeks, water quality sampling in the lake, streams, springs, and wells, and surveys of the conditions and wildlife at the main springs.
- ◆ Trespass cattle/feral horse management: surveys and collaboration with ranchers and BLM for timely removal.
- ◆ Roads: maintenance of the Reservation roads.
- ◆ Field station: maintenance of the buildings, equipment, and grounds.

### Spring

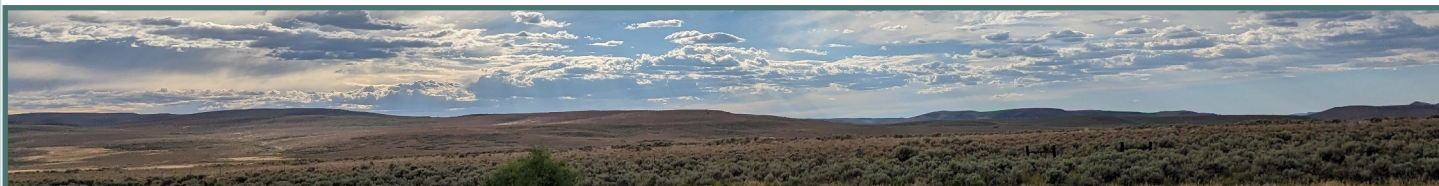
- ◆ LCT (April – May): monitoring the spawning run at the Fish Trap, performing spawning redd surveys, and continued surveys to determine how many spawners the bald eagles are eating (to inform potential management actions).
- ◆ Sage-grouse (March – May): capturing/collaring birds, nest monitoring, and habitat and raven surveys.
- ◆ Springs protection (April or May): a wildlife friendly fence will be installed around upper Tule, Slide, Lakeview, and Tollhouse springs to keep out trespass cattle and feral horses.
- ◆ Range management (April or May): maintenance of the Reservation boundary fence.
- ◆ Lake weather station, lake bubbler, and stream gage network (April): network maintenance, and the gauge station will be re-installed at the Snow Creek culvert.
- ◆ Wildfire management (April or May): maintaining firebreaks.
- ◆ Field station (April, May, or June): Old fuel tanks will be removed.

### Summer

- ◆ LCT (June, August): finish up monitoring the spawning run at the Fish Trap, electrofishing surveys in Mahogany Creek, and reed canary grass treatments on Mahogany Creek.
- ◆ Sage-grouse (June – August): brood checks, chick diet sampling, habitat and raven surveys, and capturing/collaring birds.
- ◆ Outreach/education (June): 2024 Reservation event for Members, June 14-16.
- ◆ Invasive plants (June or July): herbicide treatment of invasive plants near Mahogany Creek.
- ◆ Water quality (September): benthic macroinvertebrate sampling in Mahogany Creek.

### Fall

- ◆ LCT (September): Reed canary grass treatments on Mahogany Creek.
- ◆ Sage-grouse (September - November): habitat and raven surveys.
- ◆ Range management (September or October): Aerial application of native plant seed in the southwestern corner of the Reservation. In addition, herbicide treatment of cheatgrass in various areas of the Reservation.
- ◆ Lake weather station, lake bubbler, and stream gage network (September or October): network maintenance.
- ◆ Wildfire management (September – November): maintaining firebreaks.



## 2024 Reservation Event

June 14-16 we are planning another reservation event! Like last year, Tribal members will be able to see and participate in some of the projects going on at the reservation including Sage Grouse, LCT, boat rides, herps, and more! Please RSVP by April 19th.

Connect with us on Facebook and Instagram to stay up to date on current activities and events.



@slptnrd



Summit Lake Paiute Tribe- Natural Resource Department

# Summit Lake Housing Department

## Programs Available

**Down Payment/Closing Cost Assistance:** Eligible in Nevada, California, Oregon, Washington, Arizona and Idaho. This assistance will provide a tribal member with up to \$25,000.00 to assist with the down payment



and closing cost of a home. Tribal Member must secure a home loan. This assistance can be paired with a 184 Loan.

### **Security Deposit and First**

**Month's Rental Assistance:** Eligible in all US States. Assistance will provide up to \$2,000.00 for Security Deposit and up to \$2,000.00 for First Month's Rent. This program can be paired with TBRA.

**Job Training:** Eligible in all US States. Assistance is for eligible tribal members who need employment certifications and are unable to assume the cost. SLPT Administration Office has computers that can be utilized by the tribal members at any time for personal use or training.



If another other assistance is needed, that is not noted above, please reach out to the Housing Program Manager for further assistance.

All of the above programs are HUD funded and regulated. In order to be eligible for these programs, you must meet the income criteria, background requirements, provide required documents, and the head of household must be a SLPT Tribal Member.

**Tenant Based Rental Assistance (TBRA):** Eligible in Nevada only. Assistance is up to \$500.00 per month for one (1) calendar year. Applicants may reapply after the initial calendar year, all applications will be treated case by case.

**Sports Registration and Equipment:** Eligible in all US States. Assistance will provide up to



\$500.00 per tribal member minor between the ages of 4-17. Assistance can be used on the registration fee and needed sporting

equipment. This assistance can be used twice per tribal member minor within one (1) calendar year.

**Rehabilitation Assistance:** This assistance is for the Homeowners in Nevada who are in need of rehabilitation on their home. This assistance can cover converting a home to be ADA complaint, assist with remediation due to water damage, roof repair, and other home needs. Assistance will be provided for up to \$15,000.00.

# COVID-19 Emergency Programs

**US Department of the Treasuries American Rescue Plan Act SLPT Emergency Assistance:** Applications are being accepted for Tribal Member renters who are experiencing financial hardship due to COVID-19. This program is income based, and can provide financial relief for rental and utility payments. Applications are for two (2) months of assistance at a time for up to six (6) months of assistance within one (1) calendar year.

**US Department of the Treasuries Homeownership Assistance Fund (HAF):** Applications are being accepted for Homeowner Tribal Members who are experiencing financial hardship due to COVID-19. This program is income based, and can provide financial relief for mortgage and utility payments. Applications are for one (1) month of assistance at a time for up to six (6) months of assistance within one (1) calendar year.

**SLPT Food Pantry:** Donated pantry items are picked up bi-weekly. SLPT Council allocated \$10,000.00 of the SLPT ARPA Funds to assist with keeping the pantry stocked. Pantry hours are Monday-Friday 8:30 am to 4:30 pm and on the 3rd Saturday of each month during the Regular Council Meetings. Please bring your own bags/boxes and adhere to the posted signage in regards to limited number of items that can be taken per household.

Applications for all programs can be found at <https://www.summitlaketribe.org/housing.html>

If you have any questions regarding Housing, please contact Austin New Moon, Housing Program Manager at (775) 827-9670, cell (775) 447-5716, or via email at [austin.newmoon@summitlaketribe.org](mailto:austin.newmoon@summitlaketribe.org) and don't forget to like and share the Housing FB Page.