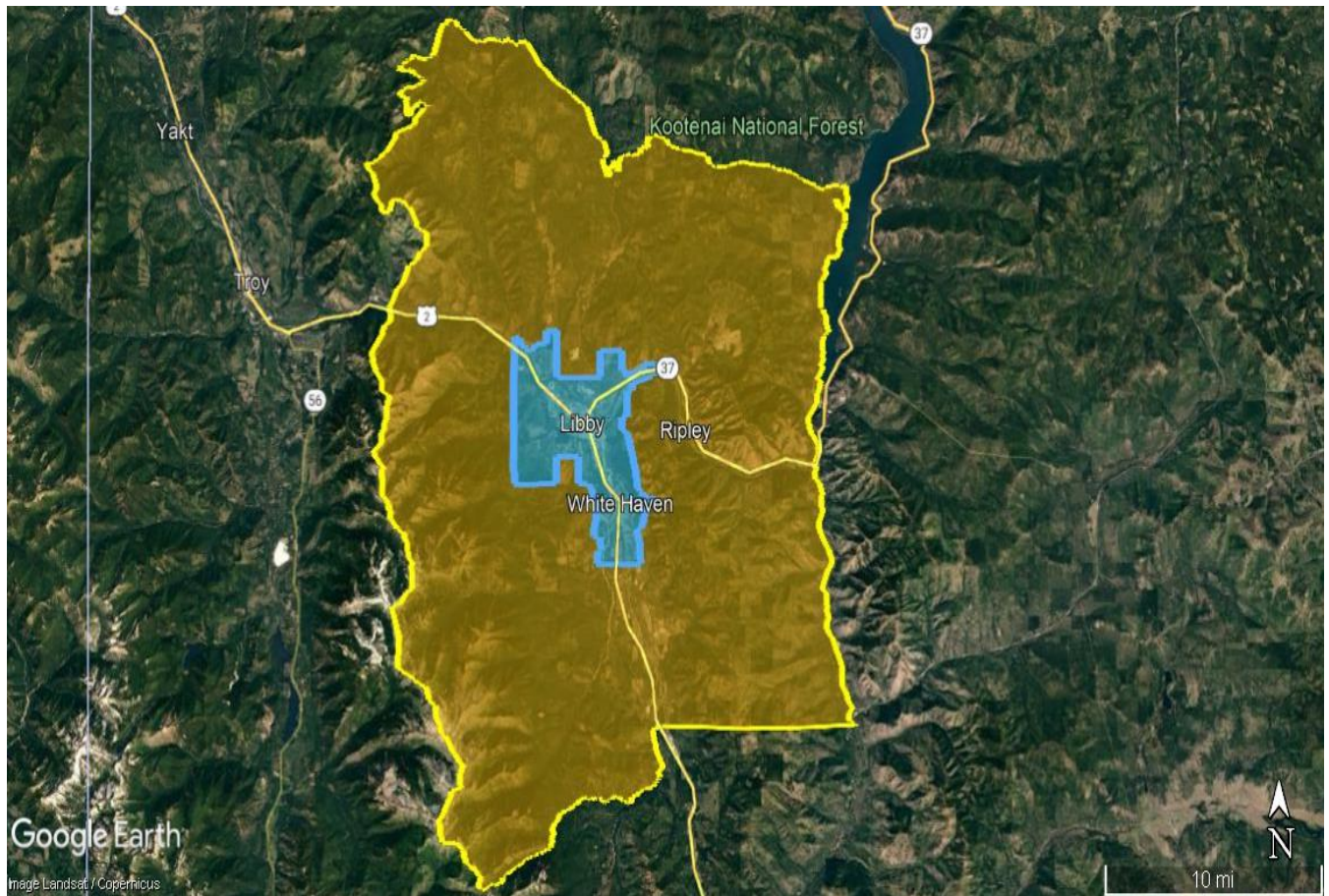




LIBBY CWD SUMMARY REPORT 2022



Montana Fish, Wildlife & Parks
Region One
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Executive Summary

Chronic Wasting Disease (CWD), an always-fatal neurological disease of deer, elk, and moose, was discovered in Libby in 2019. Although CWD was first discovered in other areas of Montana in 2017, its discovery in a deer in Libby was the first time the disease had been found inside an urban area in Montana. CWD prevalence in the Libby Surveillance Area (LSA) at that time was the highest in the state, estimated at over 13%. Montana Fish, Wildlife & Parks (FWP) immediately began collaborating with Libby City officials to find ways to reduce both the density of deer and the prevalence of CWD in and around Libby city limits; this is especially important inside city limits where hunting is not allowed. Following the *Montana CWD Management Plan*, (the Plan, <https://fwp.mt.gov/conservation/chronic-wasting-disease/management>) FWP uses a multi-faceted approach including: Removal of deer, especially bucks, in focal areas; reducing food attractants that congregate deer; and proper disposal of deer carcasses, all of which help keep CWD prevalence low and prevents its spread.

Prior to 2019, FWP had no precedent regarding how to manage CWD within urban areas associated with city limits. In general, the precedent for management of animals inside city limits is for a city or town to 1st create a management plan. Pursuant to section 7-3-1105 of Montana Code Annotated (MCA), “A city or town may adopt a plan to control, remove, and restrict game animals as defined in 87-2-101 (MCA) within the boundaries of the city or town limit for public health and safety purposes. The plan from the city or town will be approved by FWP and the state game commission and any conditions of the same plan will apply”. Although this process can take time, FWP saw a need for immediate action to manage CWD. Thus, prior to the adoption of an official deer management plan, and to support rapid management of CWD inside city limits, the City of Libby adopted Resolution 1939, authorizing MFWP to begin deer trapping and removal efforts inside the city limits immediately. In late 2019, MFWP began a pilot project to trap and dispatch deer in the LSA. A total of 60 deer were trapped and removed during the effort, and deer that did not test positive for CWD were donated to the Libby Christian Church Food Pantry.

This same year, the Libby City Council began coordinating with the local FWP Biologist to draft a deer management plan. By 2020, FWP had created a MFWP Libby Urban Area CWD Management Plan, which outlined several Actions:

1. Develop an urban deer survey to achieve a baseline number of observed deer,
2. Reduce deer densities,
3. Monitor CWD prevalence and deer reduction efforts,
4. Assist the local community by providing information and education regarding CWD

Following the creation of the MFWP Libby Urban Area CWD Management Plan, and on the heels of successful trapping efforts in 2019, FWP’s plans for deer trapping and removal efforts began in earnest. In late 2020, two technicians were hired to assist the Libby/Troy Area Biologist with the trapping/culling efforts and with a gridded pre-/post- deer trapping survey inside the LSA. The team trapped 100 deer in the LSA, 89 of which were donated to a local food pantry. In 2021, two technicians were again hired for the 2021-2022 deer trapping and survey efforts. Between December 2021 and March 2022, ninety-nine deer were captured/culled within the LSA. A total of 92 deer that tested “Not detected” for CWD were donated to a local food pantry.

In late 2021, Libby's City Council passed Resolution 1979, which acts as the city's deer management plan. The goals of Resolution 1979 include: 1. Eliminating sickly and aggressive deer, 2. Reducing deer damage to private property, 3. Preventing illegal feeding of deer, 4. Educating the public about safe disposal of deer carcasses, and 5. Cooperating with MFWP on their CWD management goals. Resolution 1979 allows FWP to continue to cooperatively manage deer inside city limits with the goal of reducing CWD prevalence to $\leq 5\%$, at which point the city will explore avenues to manage deer and CWD inside city limits. The effort will be evaluated in 5 years.

General History of CWD In and Around Libby

FWP's CWD Management Plan (the Plan) directs management of CWD statewide. The 1st step to most disease programs is surveillance or monitoring to find the disease. FWP began active surveillance efforts for CWD statewide in 1998. Prior to finding CWD in Montana, FWP acknowledged that, while prevention is critical to the control of CWD, spread was likely and imminent based on nearest known cases and mule deer densities. In 2014, FWP updated its CWD Management Plan, calling for increased surveillance in high-risk areas using predicted risk of CWD infection to prioritize surveillance areas across the state. Three years later, in late 2017, CWD was discovered in a wild cervid in Montana.

Following the discovery of any initial CWD-positive animal, the Plan calls for establishing a Management Zone (MZ), which is roughly a 10-mile radius around the location of the CWD-positive animal. Within the MZ, the goal is to collect enough samples to estimate prevalence and distribution of CWD within the deer population. The Plan calls for collecting enough samples to determine CWD prevalence with a 3% margin of error and 95% confidence in cervid populations based on a predicted prevalence of 5%. The number of samples required differs depending on the size of the population. Increasing the number of samples increases confidence and helps to reduce the margin of error.

Immediately following the 1st CWD-positive in Libby, FWP created the Libby CWD MZ (Fig. 1), which includes portions of hunting districts (HDs) [100](#), [103](#) and [104](#). FWP also established the Libby Surveillance Area (LSA), to assist with surveillance of CWD in areas in and around Libby city limits, where legal means of harvest is unlikely or impossible (Fig. 1). Following protocol established in the Plan, CWD samples were then collected from all management-removed and legally-harvested deer in and around Libby (Table 1) to estimate CWD prevalence within both the MZ and the LSA.

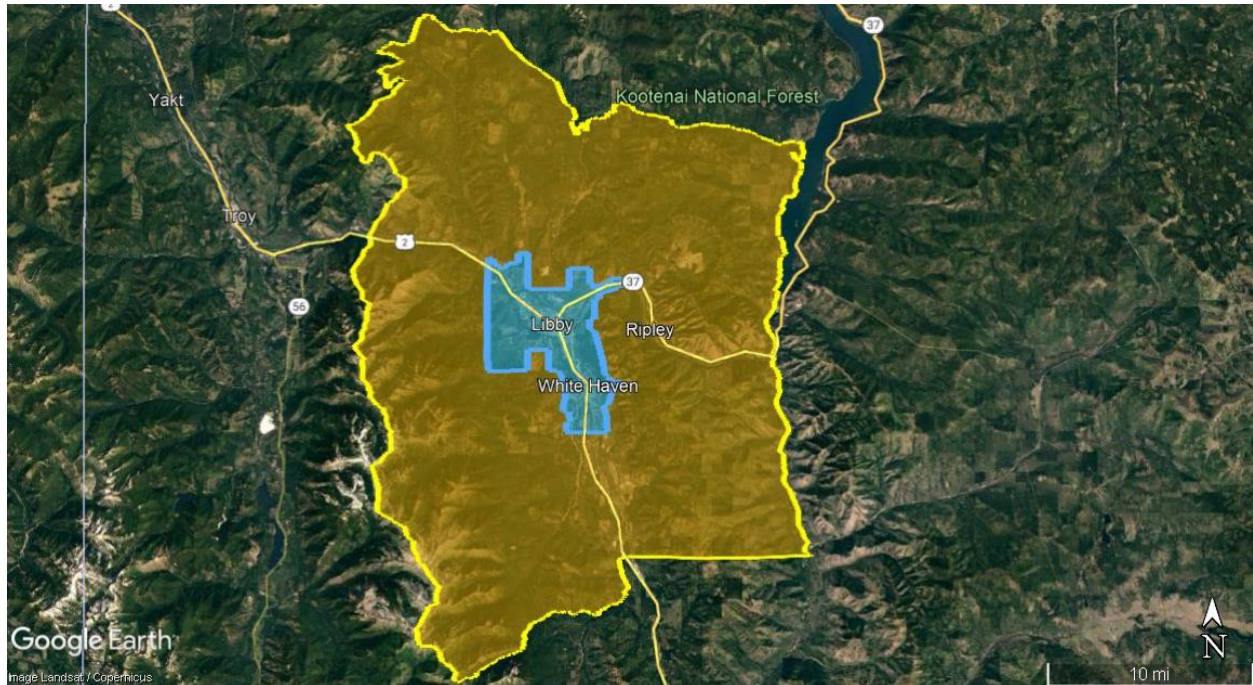


Fig. 1. Following the 1st case of CWD detected in the Libby area in 2019, FWP created Libby’s CWD Management Zone (MZ, yellow) and the smaller Libby Surveillance Area (LSA, blue), to manage CWD at 2 scales.

In 2019, FWP collected and tested 164 total deer (including hunter-harvested and trapped/culled deer – symptomatic and vehicle killed deer are not included here) from inside the LSA; 616 total deer were tested from the MZ (Table 1, Figure 2). In addition, 2 bull moose also tested positive for CWD, marking the 1st time a moose tested CWD-positive in Montana. After the 2019-2020 season, FWP used random sampling methods to estimate prevalence for white-tailed deer inside the LSA (13%), and in the MZ (4%, Table 1). Following the 2020-2021 season, 159 total deer were tested from inside the LSA, and 440 harvested deer were tested for CWD in the MZ, the highest number of samples taken from any FWP sampling site that year (Table 1, Figure 3). Prevalence was estimated at 9% inside the LSA and at 5% in the MZ in 2020. After the 2022 season, 128 total deer were tested from within the LSA, and 364 deer were tested for CWD from the MZ (Table 1, Figure 4). Prevalence inside the LSA was estimated at 8%, and at 5% in the MZ (Table 1) in 2021.

Table 1. Total number of samples collected and prevalence estimates for white-tailed deer in the Libby Surveillance Area and the Libby Management Zone, 2019-2022.

Libby Surveillance Area		
Year	Total Number Samples	Prevalence
2019-2020	164	13%
2020-2021	159	9%
2021-2022	128	8%

CWD Management Zone

Year	Total Number Samples	Prevalence
2019-2020	616	4%
2020-2021	440	5%
2021-2022	364	5%

CWD Special Management Hunt inside the MZ

Approximately 20% of Montana’s white-tailed deer harvest comes from Region 1, where white-tailed deer are the most sought-after big game species in the region. FWP estimates annual harvest of big game species using a Hunter Harvest Survey. Biologists use these data, along with annual survey information and information from the public, to propose changes to hunting regulations for the following fall hunting season.

In accordance with the Plan, FWP works to keep prevalence low where CWD exists and prevent its spread using multiple methods of management including increasing harvest. Increasing hunter opportunity by offering additional licenses allowed FWP to obtain enough random samples to provide a prevalence estimate with a lower margin of error and higher confidence. Following the establishment of the Libby CWD Management Zone (MZ) in 2019, FWP began a special management hunt inside the MZ, offering 600 over-the-counter (OTC) licenses for antlerless white-tailed deer in the Libby MZ.

During the 2019 special CWD Management Hunt, all deer, elk and moose harvested within the Libby CWD MZ - including any harvested with a Libby Special CWD Hunt antlerless white-tailed deer license and any harvested with any other type of license - were required to be checked and sampled within three days of harvest. A drop barrel was used for the Libby area during archery season, so that bow hunters could drop off the head of their harvested animals, along with the harvest information, for required CWD testing. During general rifle season, hunters could drop by either the historic hunter check station at the Canoe Gulch Ranger Station or a 2nd sampling station that was set up on the south side of town, to have their harvested animals tested for CWD.

For the 2020 hunting season, FWP offered unlimited OTC (1 per hunter) either-sex licenses inside the MZ, selling 2142 total licenses. Although hunters were no longer required to submit samples from deer harvested inside the Libby MZ for CWD testing, hunters were still encouraged to test any animal harvested in Region 1. Due to personnel limitations and other reasons, including a consistent drop in the number of hunters visiting the station, FWP discontinued the Canoe Gulch hunter check station in 2020 and are focusing efforts at the CWD sampling station in Libby. Although the hunter check station at Canoe Gulch was no longer operational, hunters were still encouraged to submit samples at the Libby sampling station south of town.

In 2021, FWP again offered OTC either sex licenses to help manage CWD, and hunters were encouraged to submit samples at the Libby sampling station. In 2021, FWP sold 2678 licenses. Due to public concerns voiced during this year’s public season setting process, the Fish and Wildlife Commission supported capping CWD license sales at N = 2000 for the 2022 hunting season, which are available through a drawing.

Libby CWD Deer Trapping and Culling Project

Although the Plan notes that other states with CWD have found success in reducing CWD prevalence using hunting, and suggests using harvest to keep CWD prevalence low, hunting is not allowed inside Libby city limits. The concerns associated with hunter harvest of deer inside city limits led FWP began a pilot project to trap and dispatch deer inside the LSA (in and around city limits, where hunting is difficult or impossible) in late 2019. During the pilot project, FWP employees and volunteers trapped and removed a total of 60 deer in approximately 1.5 months. Deer that did not test positive for CWD were donated to the Libby Christian Church Food Pantry (N = 45). This same year, the Libby City Council began coordinating with the local FWP Biologist to draft a deer management plan. By 2020, FWP had created the MFWP Libby Urban Area CWD Management Plan, and MFWP's deer trapping and removal efforts began in earnest.

In late 2020, two Technicians were hired to assist the Libby/Troy Area Biologist with the trapping/culling efforts and with a gridded pre-/post-trapping survey inside the LSA. Between late December 2020 and late February 2021, the team trapped 100 deer in and around Libby (36 bucks and 64 does), 7 of which were positive for CWD. With an eye towards spreading trapping effort as evenly as possible across the LSA, 50 deer were trapped in HD103, and 25 came from each HDs 100 and 104. Of the deer that did *not* test positive for CWD, 89 were donated to the Libby Christian Church Food Pantry. In addition to trapping on Libby Port Authority and city property, ten local landowners allowed the team access onto their property to set traps inside the LSA.

Two Technicians were again hired for the 2021-2022 deer trapping effort, with trapping beginning in late December 2021 and concluding in early March 2022. Ninety-nine deer were captured/culled within the LSA (41 bucks and 58 does), including 36 deer from HD 100, 29 from HD 103, and 34 from HD 104. Of those captured, 6 deer tested positive for CWD and taken to the Libby Landfill. A total of 92 deer that tested "Not detected" for CWD were donated to the Libby Christian Church Food Pantry. For the 2021-22 effort, 15 landowners allowed MFWP access to trap on their property.

Pre-/Post Minimum Count Deer Survey

To help monitor deer reduction efforts, FWP initiated a pre-/post-trapping survey to evaluate deer numbers within the LSA. Recognizing the potential of deer to hide behind homes, the final deer count is considered a *minimum count* of deer, rather than a true index of the number of deer inside the LSA. To count deer within the LSA, the survey area was 1st broken into 5 zones and 1 person was assigned a zone in which to count deer. All 5 zones are surveyed during early-evening on the same day. Each surveyor uses binoculars and slowly drives the roads within their zone, counting deer. GPS units are used to collect deer waypoints and survey routes. During the 2020 pre-trapping survey, surveyors counted 203 deer. After deer were trapped and removed, surveyors counted 202 deer. In 2021 prior to trapping efforts, surveyors counted 164 deer; after trapping efforts were concluded in 2022, surveyors counted 291 deer. The variation in the minimum count of deer highlights issues associated with immigration/emigration of deer inside the LSA, and we are currently discussing optimal methods with FWP's Research Biologists to determine a more accurate and precise means of estimating deer population and assessing deer removal efforts at reducing deer densities.

Assisting with Information & Education Regarding CWD

In 2019 and prior to Covid restrictions, FWP had 6 public meetings in Libby to provide updates and information to the public regarding CWD detections in and around Libby. It was during some of these meetings that FWP proposed the possibility of a trapping effort inside the LSA and received positive support from both City Council members and the general public.

Overall, the local Libby public has been supportive of FWP's efforts to reduce deer densities in and around the city of Libby. This public support is incredibly important to maintaining or improving management of CWD anywhere it is found. Experiences in other states like Wisconsin have shown an increase in CWD prevalence when agency-led culling was stopped due to unfavorable public opinion.

During the 2019 public meetings, FWP found that most local Libby homeowners were in favor of increasing opportunity and reducing deer densities through a special management hunt. Many homeowners complained publicly about the impacts of Libby's deer on their ornamental shrubs, gardens, and even pets. More recent conversations with sportsmen and women both at the hunter sampling station and over the phone, suggest that this hunt is still mostly supported to help reduce the density of deer and assist with FWP's management of CWD, while also providing for hunter opportunity. Libby's hunter numbers include a relatively high proportion of meat hunters, and many of these hunters expressed an interest in a management hunt, as well.

While in-person meetings were restricted during the Covid pandemic in 2020-2021, FWP attended several virtual Libby City Council meetings. Throughout each season's trapping/culling efforts, FWP Biologists continue to keep the City Council apprised of the trapping results both inside and outside the Libby city limits, within the LSA.

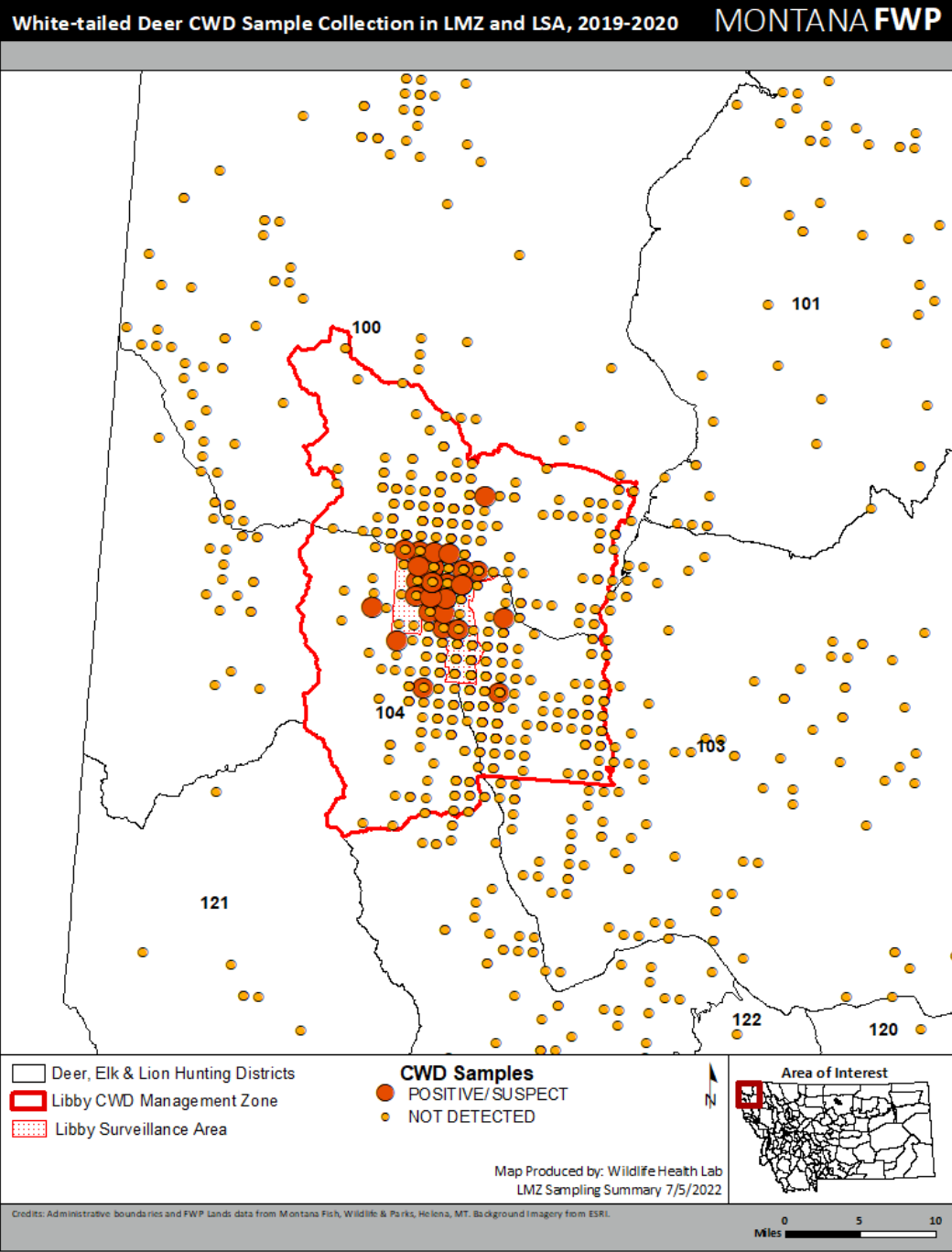


Fig. 2. FWP’s White-tailed deer CWD sample collection in northwest Montana, including Libby’s LSA and MZ, 2019-2020.

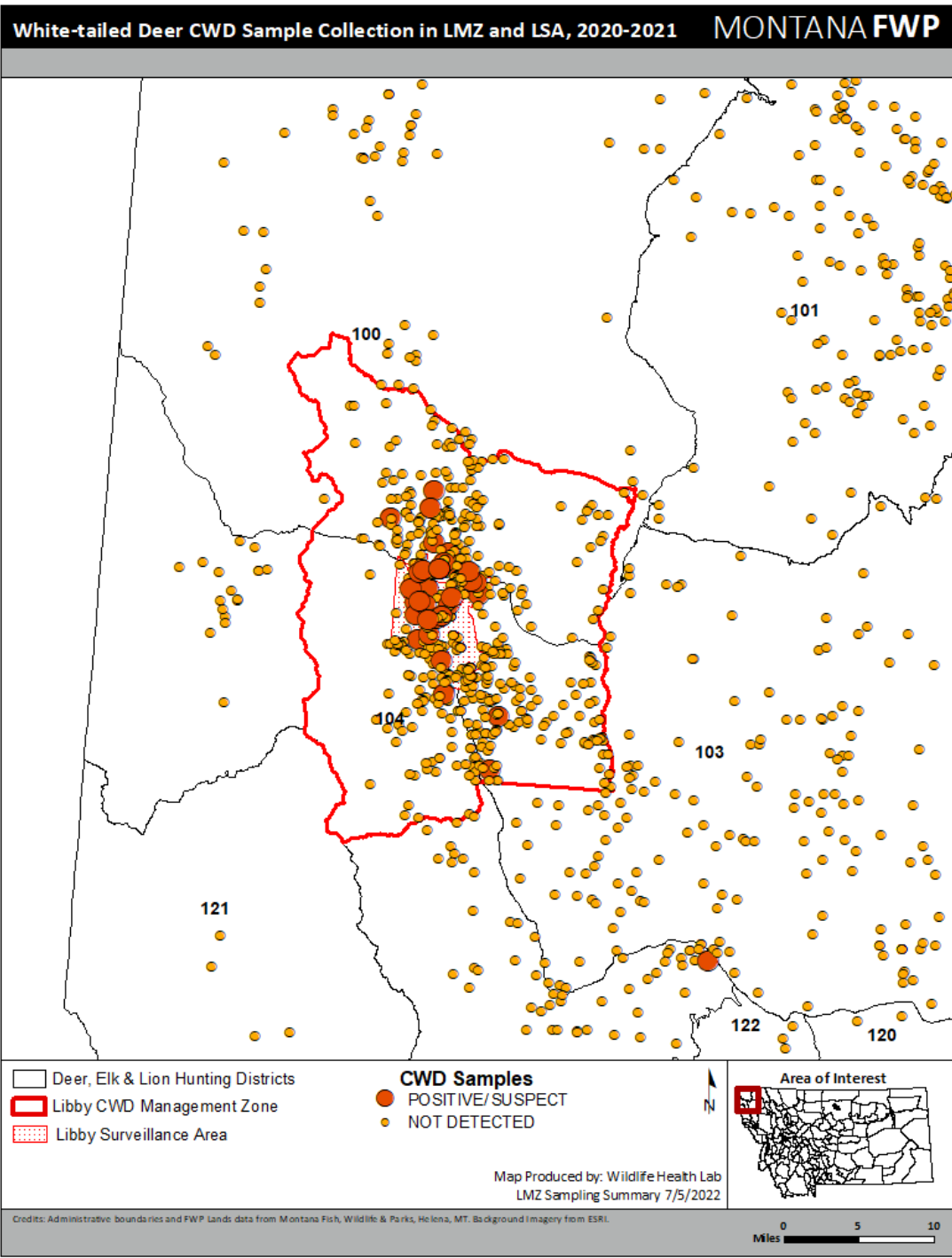


Fig. 3. FWP’s White-tailed deer CWD sample collection in northwest Montana, including Libby’s LSA and MZ, 2020-2021.

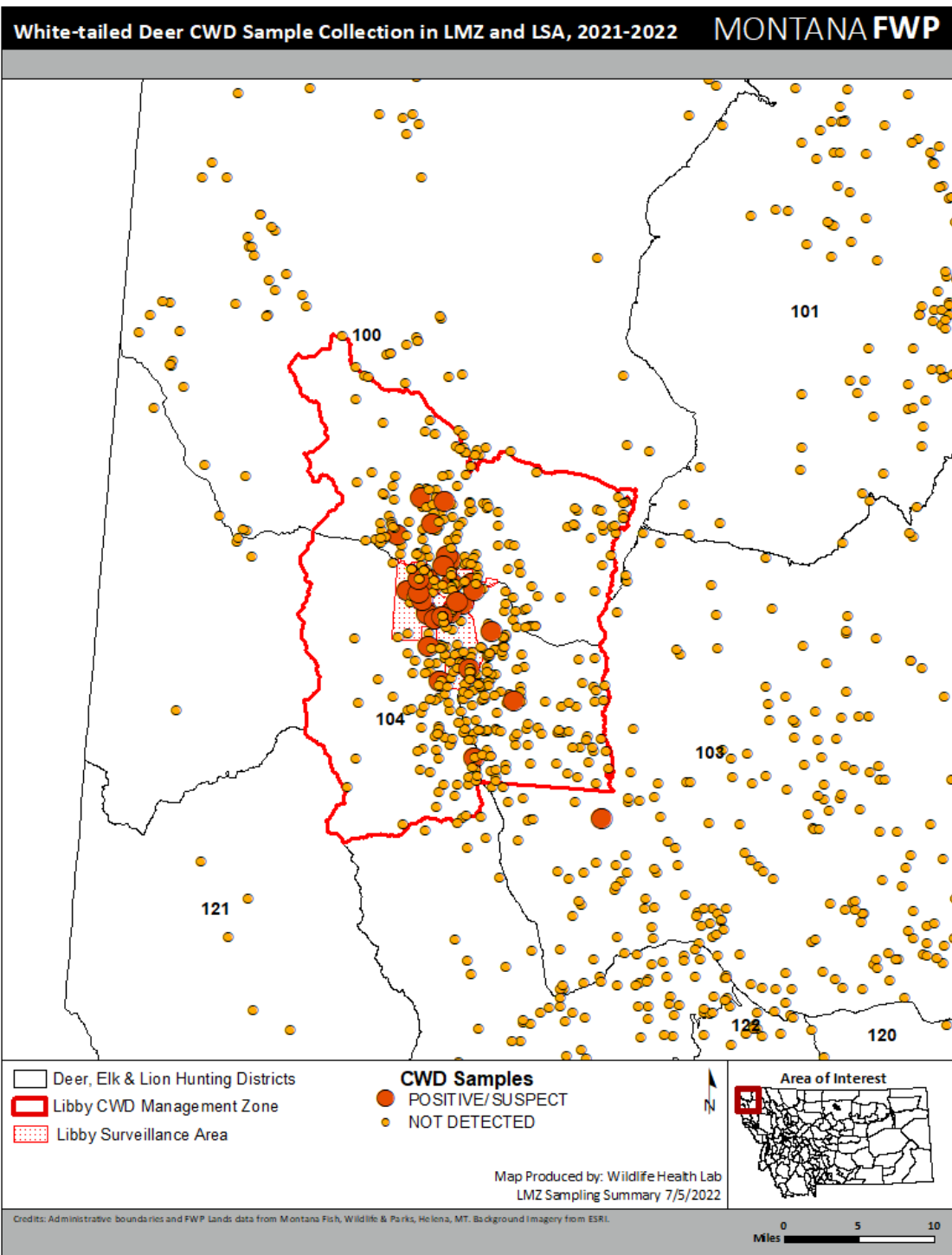


Fig. 4. FWP’s White-tailed deer CWD sample collection in northwest Montana, including Libby’s LSA and MZ, 2021-2022.