Proposed Montana Bovine Tuberculosis Surveillance Plan

Background Information

Bovine tuberculosis (bTB) is a bacterial disease caused by *Mycobacterium bovis* (*M. bovis*). Bovine TB is primarily a disease of cattle, but can affect many other species of mammals, including humans. The disease can spillover from livestock to wildlife which can then serve as a reservoir, potentially transmitting the disease to other uninfected wildlife and cattle. The disease is primarily spread from animal to animal via respiratory secretions but can also be transmitted by the fecal-oral route or by ingestion of contaminated food. Shared feeding is believed to be the primary transmission pathway between wildlife and cattle, as feed becomes contaminated with infectious saliva, urine, and feces.

Bovine TB is found throughout the world. The disease is most prevalent in Africa and in parts of Asia and the Americas. Many developed countries have greatly reduced or eliminated the disease from their cattle population; however, significant pockets of infection remain in wildlife in Canada, the United Kingdom, the United States and New Zealand.

Bovine TB is an important disease for both livestock and wildlife. Significant regulatory and economic consequences impacting livestock producers due to loss of bTB-free status could include strict quarantine, increased testing requirements, and possible depopulation of herds. Wildlife would be impacted by a decreased tolerance for infected wild cervid populations on the landscape, and the major expense and aggressive nature of managing the disease once established in wildlife. If BTB were to become established in wildlife and livestock in Montana, there would be concern for the human health impacts to people who might contact infected animals either through their work in the livestock industry or wildlife management, or through hunting. Surveillance for bTB in wildlife and livestock is critical to detect the disease in cattle before it has a chance to spillover to wildlife, and to detect wildlife cases early to minimize the risk of a wildlife reservoir becoming established. These concerns necessitate wildlife management agencies and livestock health officials working closely together to develop surveillance strategies for early detection of this disease.

Bovine tuberculosis is a federally regulated disease. Every suspect or diagnosed case must be promptly reported to U.S. Department of Agriculture Animal and Plant Health Inspection Service (USDA APHIS) Veterinary Services and State Animal Health Officials (MCA 81-2-107, ARM 32.3.104). Livestock surveillance for bTB in Montana is guided by the USDA APHIS Uniform Methods and Rules (UM&R) (https://www.aphis.usda.gov/animal_health/animal_diseases/tuberculosis/downloads/tb-umr.pdf), and is under the authority of the Montana Department of Livestock (MDOL). The UM&R are the minimum standards established for maintenance of tuberculosis-free accredited herds of cattle and bison as well as the maintenance of state status in the USDA tuberculosis

eradication program (14). These minimum standards do not preclude the adoption of more stringent standards by any State or zone.

While guidelines for bovine tuberculosis surveillance in wildlife is provided in USDA APHIS *Guidelines for Surveillance of Bovine Tuberculosis*, this document does not outline specific details for a wildlife surveillance plan in Montana. The purpose of this document is to provide further direction in adapting the USDA APHIS guidelines to wildlife surveillance for bTB in Montana.

Human health

Mycobacterium bovis is not the major cause of human tuberculosis, which is caused by the bacterium *Mycobacterium tuberculosis*; however, humans can be infected with *M. bovis* by drinking raw milk from infected cattle, by inhaling infective droplets from an infected animal or carcass, or through contact with body fluids from an infected animal via open wounds. Bovine TB accounts for fewer than 2% of tuberculosis cases in the United States (https://www.cdc.gov/TB/publications/factsheets/general/mbovis.pdf). There has been at least one confirmed case of transmission of bTB to a human from an infected white-tailed deer. In that case, the disease is believed to have been transmitted via bodily fluids from the infected deer through an open wound of a hunter during the field dressing process https://www.michigan.gov/mdhhs/0,5885,7-339-73970_71692_8347-107460--,00.html.

Bovine tuberculosis in North American wildlife

Although bTB can infect a wide range of mammals, only a few species have been identified as maintenance hosts (6,15). Maintenance hosts are those host populations in which a disease can persist in the absence of any other source of infection (6,9,15). Known wild maintenance host species for bTB include the Eurasian badger in Ireland and the United Kingdom (11); the brush-tailed possum in New Zealand (6); African buffalo, lechwe, warthog and kudu in Africa (2); white-tailed deer in Michigan (13); red deer and European wild boar in Spain (7,10); and feral swine in Hawaii.

Most wild species are considered “spillover hosts,” which are species that can become infected, but in which the pathogen does not persist without introductions from a maintenance host (6,15). In spillover species, the disease occurs sporadically, only being detected occasionally.

Bovine TB is considered endemic in wildlife in parts of Hawaii, Michigan, Alberta, and Manitoba. Sporadic cases of bTB have been reported in free-ranging wildlife in Montana, New York, Minnesota, Indiana and Ontario. Wildlife data are lacking for Mexico, but unconfirmed cases have been reported in white-tailed deer.

Bovine TB was detected in at least six game farms in Montana in the early 1990’s. Infected farmed fallow deer were found in Sheridan and Richland counties, and infected farmed elk

were found in Granite, Park, Big Horn, and Carter counties. In 1993, after the disease was confirmed in captive elk on the game farm in Big Horn county, an effort was made to survey free-ranging wildlife in the area for the disease. Forty-one mule deer and three white-tailed deer were collected from an adjacent cattle ranch from November 1993 through January 1994, and samples were submitted for bTB testing. Two of the mule deer had suspicious lesions consistent with bTB infection. *M. bovis* was isolated from lymph nodes of one of those deer. *M. bovis* was also detected in a few coyotes in that area. In August 1994, additional wildlife surveillance efforts were carried out and 130 mule deer, 15 white-tailed deer, 15 coyotes, 1 pronghorn antelope, 1 elk, 3 porcupines, and 1 rabbit were collected. Bovine TB was only detected in one of the 15 coyotes sampled during this effort. In 1995, bTB was detected in 1 of 7 coyotes collected for testing. Little wildlife surveillance was conducted around the other game farms, in part due to low wildlife densities in those areas.

Recent Cases Near Montana's Borders

In October 2016, the Canadian Food Inspection Agency (CFIA) identified a case of bTB in a beef cow northwest of Medicine Hat, Alberta. The bTB strain in this most recent detection appears to be related to strains found in Mexico. This has raised concerns about the possibility that bTB could have spilled over into a large population of elk associated with Canadian Forces Base (CFB) in Suffield, approximately 100 miles from the northern border of Montana. During the 2017 and 2018 hunting seasons, Alberta Environment and Parks collected samples from hunter-harvested animals at their check station on the Canadian Forces Base Suffield for bTB testing. No TB infected wildlife have been detected.

In 2017, bTB was detected in cattle in Harding (NW corner) and Tripp (South-central) South Dakota. South Dakota Game, Fish and Parks conducted bTB surveillance of wildlife on and around the infected premises and did not detect the disease. They plan to implement a long-term surveillance plan in that area. The bTB strain detected in Harding County was nearly identical to a strain seen only on a dairy farm in central Mexico, approximately 20 years prior. The Tripp County strain also appears to be related to bTB strains found in Mexico. The epidemiological investigations in these South Dakota cases revealed no contact with foreign born cattle or cattle originating in Mexico.

Significance of bTB in Wild Cervids

Mycobacterium bovis infection typically causes chronic, progressive disease in cervids. While some deer may develop severe disease within a few months, many are asymptomatic for years. Over time, infection results in gradual debilitation and emaciation. Other common symptoms in cervids surviving to late-stage disease may include coughing, nasal discharge, and difficulty breathing.

The classic lesions associated with bTB infection in deer include white, yellow, or tan necrotic, pus-filled nodules on the inner surface of the ribcage, on the surface or interior of the lungs, or inside lymph nodes and tonsils. While the medial retropharyngeal lymph nodes and tonsils are

most common sites for lesions in cervids, these can be easily overlooked by hunters. Most bTB-infected deer appear healthy. In Michigan, approximately 42% of bTB-infected deer had classic lesions of the lung and inner chest wall that would be readily identified by most hunters https://www.michigan.gov/dnr/0,4570,7-350-79136_79608_85016-99064--,00.html.

There are no documented cases of bTB causing cervid population declines. The impacts of aggressive management in endemic areas often has a much greater impact on deer survival than mortality resulting from this chronic disease.

Prevention

There are common themes in bTB literature that may be useful to consider prior to development of a formal bTB management plan for wildlife. The most important of these common themes are 1.) key risk factors for establishment of bTB in wildlife populations, and 2.) key strategies to prevent this from happening.

The key risk factors for establishment of bTB in wildlife populations include commingling of infected cattle with susceptible wildlife, supplemental feeding of wildlife, inadequate surveillance of at-risk wildlife, and unrecognized emergence of alternate wildlife species as successful maintenance hosts (8). Issues of commingling and concentrating/aggregating cervids must be addressed by policy and management. Montana Fish, Wildlife & Parks (FWP) currently does not rehabilitate and/or translocate cervids to prevent inadvertent movement of diseases such as Chronic Wasting Disease or bTB to new parts of the state. In addition, baiting and feeding of big game animals is illegal in Montana as defined under MCA § 87-6-216(1)(c), although this is rarely enforced. Surveillance of at-risk wildlife and emergence of alternate wildlife species as reservoirs must be addressed by collaborative development of effective and adaptable surveillance strategies.

Purpose of bTB Surveillance and Response Plan

According to Carstensen et al., 2011, the key strategies to prevent bTB from becoming established in wildlife populations include 1.) rapid response to initial disease detection; 2.) follow-through on monitoring the outbreak with adequate surveillance; 3.) recognizing when monitoring must switch to management; 4.) aggressively reducing transmission potential by reducing deer densities, limiting recreational feeding, and mitigating risks at the cattle-wildlife interface; and 5.) evaluation of efforts and adjusting as needed (4). These strategies are very similar to strategies that have become part of FWP's CWD management plan and highlight the importance of surveillance for early detection of bTB as well as effective surveillance during the disease-management phase.

The goals of FWP's current bTB Surveillance and Response Plan include early detection of spillover to wildlife, preventing the disease from becoming endemic in wildlife, and preparing to respond with increased surveillance in the event of a wildlife detection to determine the

prevalence and distribution of the disease. Effective surveillance of wildlife may also inform surveillance for the disease in livestock. Because bTB is an issue with significant consequences for both wildlife and domestic animal industry as well as human health concerns, effective collaboration and support from multiple state, federal and tribal agencies will be required for the plan to be successful. If bTB were to become endemic in wildlife populations, the cost of management would drastically increase and the likelihood of eradicating the disease would decrease. Recent epidemiological models suggest that once bTB is introduced into a wildlife population, there is at least a 10 percent probability the disease will become established (12). A recent financial analysis found that it would cost $1.5 million annually over 30 years to eradicate the disease in wildlife in Michigan (5). Identification of a spillover event to wildlife, followed by a rapid response, is the most effective means to prevent the disease from becoming established in wildlife populations. (4). Management of wildlife in the presence of bTB is beyond the scope of this document. Actions aimed at managing or eradicating bTB in wildlife if it is detected, will be considered separately through the appropriate public comment process. This may include future Commission action, agency rulemaking, or other processes, depending on the situational context in such an event.

Current Surveillance in Montana

Active wildlife surveillance was not conducted in Montana from 1995-2018. During that time, Montana Fish, Wildlife & Parks (FWP) routinely conducted passive surveillance by opportunistically testing animals with lesions similar to those caused by bTB, and the disease has not been detected. It is possible that additional bTB cases have not been detected because prevalence of the disease may have been too low for the disease to become endemic and it faded out. Another possibility is that sample sizes have not been high enough to detect the disease, especially if disease prevalence is very low. Starting with the 2018 hunting season, FWP has variously collected samples for bovine tuberculosis (bTB) testing at CWD check stations.

Surveillance Prior to Detection Within Montana or Near Montana's Borders

The goal of surveillance prior to any known cases of bTB is early detection. Bovine TB surveillance and control efforts in livestock conducted by USDA APHIS and Montana Department of Livestock (MDOL) are crucial to maintaining Montana's bTB-free status and preventing spillover to wildlife.

Both passive and active surveillance may be used to look for the disease in wildlife prior to any documented case of the disease (wildlife or livestock) within Montana or near our borders. Regardless of bTB status, passive surveillance of wildlife is conducted continuously across the state. Passive surveillance entails opportunistically looking for bTB by necropsy and examination of animals that are sick or have died from an unknown cause, and by collection of samples from "suspect" animals of any species. Suspect animals are those that have lesions consistent with bTB, such as granulomas on the inner surface of the ribcage and/or within or on the surface of the lungs, or lymph nodes with necrotic or pus-filled nodules. Samples/carcasses

may be submitted by FWP field staff who dispatch sick wildlife or collect carcasses of animals suspected of dying from disease, or by hunters who harvest animals with lesions consistent with bTB. The key to effective passive surveillance is education and training of FWP field staff to recognize suspect animals and ensure appropriate biological samples are collected for submission and testing. FWP staff should be trained on human health risks, proper PPE, cleaning/disinfecting, and proper disposal of materials from suspect animals. Efforts to increase public/hunter awareness of the value of reporting sick wildlife are also important.

Active surveillance, which is a proactive coordinated sampling effort in areas deemed to be of high priority due to proximity to historic cases, may be conducted to look for the disease prior to detection in wildlife or livestock within or near Montana's borders. Active surveillance prior to detection of the disease will primarily be conducted with samples from cervids (mule deer, white-tailed deer, elk, moose) harvested during established hunting seasons in priority areas. In this circumstance, sampling will most often be limited to lymph nodes of the head (retropharyngeal, mandibular, parotid lymph nodes) and in some cases, tonsils may also be collected. In some areas, USDA Wildlife Services may conduct coyote control and be willing to assist in collection of samples in priority areas. Because coyotes are a primary predator of cervids, they serve as sentinel species. Detection of bTB in coyotes suggests they are consuming infected prey. This avenue of surveillance will be explored on a case by case basis to determine whether there are opportunities to collect samples from coyotes in high priority areas.

In some cases, FWP may not have additional resources to devote exclusively to bTB surveillance prior to detection of the disease near or within our state. Therefore, bTB surveillance efforts may rely on existing staff and resources and will often take advantage of other established sampling opportunities such as those presented by hunter harvested cervid heads at CWD sampling check stations. If a high priority area is identified that cannot be addressed concurrently with CWD surveillance and/or coyote culling, additional funding and other resources may need to be pursued.

Surveillance in Response to Detection

The goal of wildlife surveillance in response to a detection of bTB in livestock or wildlife in Montana or near our borders is to determine whether the disease has spilled over or become established in wildlife, and if it has, to determine the distribution and prevalence of the disease. The information gained from surveillance efforts will be critical for management planning. The management response will likely be very different in a situation where a localized spillover area or "hot spot" of infection is present than in a situation in which the disease is already endemic in wildlife.

Surveillance in Response to Detection in Livestock in Montana

When FWP's wildlife veterinarian or disease ecologist is notified of a livestock detection of bTB within Montana, FWP Wildlife Health Program (WHP) staff will notify the Wildlife Division

Administrator and Game Management Bureau Chief, as well as the FWP wildlife manager and regional supervisor in the affected region(s) to notify them of the detection and to arrange a meeting with Montana Department of Livestock (MDOL) veterinarians. It is important to maintain confidentiality regarding the specific location of the livestock detection until otherwise notified by MDOL (M.C.A. 81-2-115). FWP will collaborate with MDOL, USDA APHIS VS and Wildlife Services (WS), and Tribal representatives, where applicable, to develop a surveillance plan to determine whether bTB is present in wildlife on or around the infected premises, and if so, whether it is likely a recent spillover or is endemic in wildlife in the area, and its prevalence and distribution. FWP will follow the USDA APHIS *Guidelines for Surveillance of Bovine Tuberculosis in Wildlife* as closely as possible (https://www.aphis.usda.gov/animal_health/animal_diseases/tuberculosis/downloads/wildlife_TB_surv_manual.pdf). These guidelines provide instruction on which species to include in surveillance, the geographic area to be surveyed, sample size, and protocol for sample collection, preservation and submission. These are only guidelines, and the actual surveillance strategy developed and implemented may deviate significantly from the USDA guidelines due to variability in factors such as suspected source of *M. bovis* based on genetic analysis, wildlife density, species diversity, wildlife movement on the landscape, terrain, access, time of year, funding, and timing relative to hunting season. The final plan should be one that is supported by all participating agencies.

Because there is no adequate antemortem test for bTB in wildlife, response to detection of bTB in livestock will likely result in some lethal removal of wildlife on and around the infected premises. Whenever possible, sampling will be conducted using hunter-harvested animals during general hunting seasons. The surveillance area defined as the 'infected premises' will be designated during collaborative development of the surveillance plan. Depending upon livestock and wildlife land use, the area may incorporate part or all of the property where the detection was made plus neighboring properties. Once a plan is in place, FWP WHP staff will contact the National Veterinary Services Laboratory (NVSL) to discuss sample collection and submission. Public information and outreach to explain the purpose and intent of the effort will be a critical to maintain transparency and public support.

A brief summary of the wildlife sampling protocol as provided in USDA APHIS Guidelines for Surveillance of Bovine Tuberculosis includes the following steps:

- As soon as possible after detection: Trap, remove, necropsy and test resident small mammals on the premises until no target species are trapped for five consecutive nights to determine whether bTB is present in these species on or around the infected premises. Resident small mammals are those species having small home ranges that spend most of their time on the affected premises. Targeted species will include raccoons, rabbits, hares, skunks, foxes, ground squirrels, and porcupines. Continue trap/remove/test efforts at six-month intervals during optimal trapping season for at least one year after the last bTB positive animal is removed.

- As soon as possible after detection: Begin removal and testing of cervids on and within a determined radius of the detection (See Geographic Area for Sampling below). The target sample size should be achieved in the shortest timeframe possible but is likely to require a two- to three-year effort. Sample size for cervids may be determined using the sample size calculator provided in the USDA APHIS guidelines (see below) where appropriate. Where the sample size calculator is not appropriate, epidemiologists and disease specialists must use other methods and models to determine an appropriate sample size. Follow up with hunter harvest surveillance during the hunting season to ensure sampling goal is reached.
- Within at least six months of detection: remove, necropsy and test at least 10 coyotes (at least one year of age) from an area at least one home range from the infected premises. If home range is unknown, the survey area should begin in a radius beginning at least 10 miles from the infected premises.

It is important to keep in mind that the above are only guidelines. The final wildlife surveillance plan will be developed in collaboration with USDA APHIS, MDOL, FWP, and Tribal nations where applicable. For example, if resources are limited or other species can't efficiently be trapped/captured, surveillance may be focused primarily on cervids which are known to be capable reservoirs of the disease. This approach was taken by Minnesota Department of Natural Resources (MNDNR) which initiated hunter harvest surveillance of deer during the 2005 fall hunting season after a cattle detection in July 2005 (4). While furbearers and rodents can be reservoirs and potential sentinels for bTB, research from Michigan concluded that these species are generally spill-over hosts that are not capable of efficiently transmitting the disease (1,3). Efforts will be made to take advantage of hunter harvest samples and existing hunting seasons as much as possible.

Sample Size (from USDA APHIS *Guidelines for Surveillance of Bovine Tuberculosis in Wildlife*)

Sample sizes may not need to be determined for resident small mammals because the guidelines indicate trapping should occur until no target species are trapped for five consecutive nights, followed by trapping at six-month intervals for at least one year after the last bTB positive animal is removed. The trapping or capture strategy used will be determined on a case by case basis and will take into account which species are present in the sampling area as well as their distribution. Small mammals can be difficult to trap, and populations are typically at low density. In most cases we will need to collect as many of these species as can be captured during the sampling period determined in the final plan. Sample size for coyotes is provided in the guidelines.

Sample size for cervids may be determined using the sample size calculator provided in the USDA APHIS guidelines when appropriate. The sample size calculator provides a 0.95 probability of detecting at least one infected animal given the prevalence in the population is equal to the prevalence set by the user in the calculator. The calculator may not be appropriate for small

populations with very low prevalence. In such cases, epidemiologists and wildlife disease experts will use other methods and models to determine the required sample size. A weighted surveillance strategy that incorporates the relative risk of different demographic groups (age, sex, or cause of death categories) to economize sampling efforts, is recommended. The full suite of samples collected during full necropsies by trained staff are likely to be much more informative than lymph node samples collected by field staff from the heads of hunter harvested animals.

Geographic Area for Sampling (from USDA APHIS Guidelines for Surveillance of Bovine Tuberculosis in Wildlife)

Resident wildlife should be sampled from the premises of the detection(s). Coyotes should be removed/sampled from an area approximately one home range (or begin 10 miles away if home range is unknown) from the premises. A formula for selecting the appropriate geographic area for sampling of transient wildlife, such as cervids, is provided in the USDA APHIS guidelines:

Surveillance radius = 2 x √(A/π), Where *A* is the home range of the species in square miles.

It is important to keep in mind that this formula is only meant to serve as a starting point for determining geographic area for sampling. Factors such as target species, population ecology, densities, behavior, and land-use patterns must be taken into consideration. Local wildlife biologists' and managers' participation will be imperative to design an effective and realistic surveillance strategy.

Detection in Free-ranging Wildlife in Montana

If bTB is detected in any free-ranging wildlife species in the state of Montana, FWP WHP staff will initiate a phone tree (Appendix A) to ensure that agency staff and stakeholders are notified of the species, location, test results, and other pertinent information. Because bTB is a reportable disease (MCA 81-2-107, ARM 32.3.104), the MDOL State Veterinarian (currently Dr. Martin Zaluski) and USDA Veterinary Services district office point of contact (currently Dr. Scott Beutelschies) will be among the first notified. If the disease is detected in Montana within 50 miles of the border of a neighboring state or province, wildlife and livestock authorities from the neighboring state, province, or Tribal nation will also be notified. A response/management team made up of staff from FWP, MDOL, Department of Public Health and Human Services (DPHHS), USDA APHIS and WS, and Tribal nations where applicable, will begin working on a proposed wildlife surveillance strategy following the USDA APHIS *Guidelines for Surveillance of Bovine Tuberculosis in Wildlife* where appropriate, but adapting the surveillance strategy to fit the distinct characteristics of the wildlife populations in the area of detection. Depending upon the proximity of the wildlife detection to livestock, USDA APHIS and MDOL may also incorporate livestock surveillance into the overall bTB surveillance effort in the area. The FWP regional supervisor in the area of detection will act as the leader of response team. The area wildlife manager, area biologist and FWP WHP staff will be critical to the development of the

surveillance strategy. The goal of surveillance will initially be to determine whether the disease is endemic in wildlife. If the disease is endemic, surveillance will be initiated to determine the geographic distribution of the disease and estimate prevalence at a population level deemed appropriate by the regional wildlife manager and biologist with insight into population dynamics in the area. This information will be necessary to allow FWP to make informed management decisions. When possible, sample collection will occur during existing hunting seasons. In high risk circumstances such as very close proximity to cattle herds, response to detection of bTB in free-ranging wildlife may result in lethal removal of some wildlife species within a specified response area outside of a general hunting season. Such decisions will be made on a case by case basis. Once the surveillance area, species to be sampled, timing, and means by which animals will be collected have been established, FWP WHP staff will contact the National Veterinary Services Laboratory (NVSL) to discuss sample collection, storage and submission. Public information and outreach to explain the purpose and intent of the effort will be a critical to maintain transparency and public support.

While wildlife surveillance guidelines for bTB in response to a detection in livestock are well established in the USDA APHIS *Guidelines for Surveillance of Bovine Tuberculosis in Wildlife*, similar protocol is not readily available for surveillance of wildlife in response to an initial detection in free-ranging wildlife. Most wildlife species are considered "spillover hosts". An initial detection in a wildlife species does not necessarily indicate that the disease is endemic in the wild population, but this status must be determined by the surveillance effort. The key difference between surveillance after an initial detection in wildlife versus an initial detection in livestock is the fact that there are no "premises" to help guide determination of sampling area in the case of a wildlife detection. A wildlife surveillance plan following a detection of bTB in free-ranging wildlife will designate an area (bTB response zone) based on a buffer of at least one ten-mile radius around the collection location of the infected animal as a proxy for a premises in which surveillance will be conducted.

Detection of bTB Near Montana's Border

If bTB is detected in livestock or wildlife near Montana's borders in a neighboring state/province/tribal nation, notification would be expected from the neighboring state/provincial/tribal livestock or wildlife agency to their counterparts in Montana. If the disease is detected in wildlife and FWP is first notified, FWP WHP staff will inquire about the notifying state/province's plan for response/surveillance and will make appropriate contacts with MDOL, USDA APHIS, DPHHS, tribal and FWP staff. If the detection is in livestock, and MDOL is first notified, they will notify FWP of the detection. FWP WHP staff will arrange a meeting with an internal FWP team and interested MDOL, USDA APHIS, tribal and DPHHS partners to discuss whether a wildlife surveillance effort is appropriate. If such an effort is deemed appropriate and resources are available, FWP staff will draft a proposed surveillance response effort as described in the sections above, and submit the proposed plan to MDOL, USDA APHIS, and DPHHS staff for review. The goal of the plan will be to detect bTB if it is present in wildlife

in Montana. Once a plan is in place, FWP WHP staff will contact the National Veterinary Services Laboratory (NVSL) to discuss sample collection and submission.

Management of bTB in Wildlife

A detailed plan for management of bTB in wildlife is beyond the scope of this surveillance plan document. Development of a management plan for bTB would require a significant collaborative effort similar to the development of our agency's current CWD management plan. Many of the tools used for management of CWD have also been used for management of bTB in deer. The primary goals for management of bTB in infected wild deer populations in other jurisdictions have been reducing deer density and maintaining separation between infected wildlife and cattle. In the event that bTB was detected in a Montana wildlife population, the development of a plan to manage or eradicate the disease in wildlife will be considered separately through the appropriate public comment process and may include Commission action or other processes, depending upon the particular circumstances of the event.

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Appendix A

FWP ACTION ALERT PHONE TREE TO IMPLEMENT INITIAL RESPONSE TO bTB DETECTION IN WILDLIFE OR LIVESTOCK

- A positive test result from a wildlife species or livestock is reported to FWP Wildlife Disease Ecologist (currently Dr. Emily Almberg 994-6358), the FWP Wildlife Veterinarian (currently Dr. Jennifer Ramsey 994-5671) or the Montana State Veterinarian (currently Dr. Martin Zaluski 444-2043 or 475-2569 or the after-hours DoL emergency line (444-2976)
- Bovine TB is a reportable disease which must be reported to the USDA AVIC (currently Dr. Scott Beutelschies 449-2220) and Montana State Veterinarian's office (currently Dr. Martin Zaluski 444-0782 and Dr. Tahnee Szymanski 444-5214).
- The Disease Ecologist, Wildlife Veterinarian and/or Montana State Veterinarian call FWP
  Director's Office (444-3186), and Wildlife Division (444-2612)
- Wildlife Division or Director's Office calls FWP Communication and Education Division Administrator (currently Greg Lemon, 444-4038), Information Bureau Chief (currently Peggy O' Neill-McLeod), Game Management Bureau Chief (currently Brian Wakeling 444-3940), Regional Supervisor of affected region, local Fish & Wildlife Commissioner
- FWP Information Bureau Chief, the Information and Education Manager in the affected region, regional management staff and wildlife health program staff prepare news release
- FWP Information Bureau Chief contacts the Department of Public Health and Human Services 24-hour emergency public health line (444-0273), which will notify local county health officers, commissioners, etc.
- Enforcement Division contacts hunter and landowner and any other affected state, tribal or county jurisdictions, including other states if a harvested animal has been transported out of state.
- Information Bureau Chief distributes information via email to FWP all
- If the detection occurred near the Montana border, FWP WHP staff will contact the neighboring state wildlife management agency to notify them of the detection.
- CommEd Administrator and Information Bureau Chief contact first-tier media
- Information Bureau Chief distributes news release and fact sheet to statewide media