

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF MISSISSIPPI
EASTERN DIVISION

UNITED STATES OF AMERICA

PLAINTIFF

v.

DOCKET NO. 2:17-CR-00018-KS-MTP

EDWARD L. DONALDSON, ET AL.

DEFENDANTS

MEMORANDUM AND ORDER¹

This matter is before the Court on both Defendants' and Plaintiff's recommendations regarding the appropriate depopulation protocol for a captive white-tailed deer facility in Forrest County, Mississippi.

I. SCIENTIFIC BACKGROUND

Chronic Wasting Disease ("CWD") is a contagious prion disease found in mule deer, white-tailed deer, and elk. These animals are known as "cervids." E.S. Williams, *Chronic Wasting Disease*, 42 VETERINARY PATHOLOGY 530, 538 (2005). Simply, a prion is a misfolded protein found on the surface of neurons. CWD prions are found in the brain, spinal cord, eyes, peripheral nerves, and lymphatic tissues of CWD-infected cervids. Ermias D. Belay et al., *Chronic Wasting Disease and Potential Transmission to Humans*, 10 EMERGING INFECTIOUS DISEASES 977, 979 (2004). CWD is likely the most efficiently transmitted mammalian prion disease. Christina J. Sigurdson & Adriano Aguzzi, *Chronic wasting disease*, 1772 BIOCHIMICA ET BIOPHYSICA ACTA 610, 612 (2007). CWD symptoms include weight loss, excessive salivation, head tremors, and behavioral changes. Williams, *supra* at 531. Currently, there is no evidence that CWD is transmissible to humans. Williams, *supra* at 539.

II. FACTUAL BACKGROUND

¹ The Court wishes to acknowledge the substantial assistance of Mr. Davis Pigg with this opinion. He is a Registered Forester and a former technician at the Mississippi State University Deer Lab. He is currently a student at the University of Mississippi School of Law and completed a summer internship with the Court.

Turkey Trot is a captive deer facility in Forrest County, Mississippi owned by Edward L. Donaldson and John Jared Oertling (collectively “Defendants”). It is home to between 262 and 309 white-tailed deer. This case stems from Defendants’ illegal importation of deer into Mississippi.

In January and March of 2012, Turkey Trot bought and imported six deer (the “subject deer”) into the state. Supp. Fact Hist. [28] at p. 1. These deer originated from two Pennsylvania-based captive deer facilities, one owned by Troy Luckenbaugh (“Luckenbaugh”) and the other owned by Brian Rutter (“Rutter”). *Id.* Four of the subject deer came from Luckenbaugh’s facility and two came from Rutter’s facility. *Id.*; *see also* Depopulation Hearing ²at p. 54. Both Luckenbaugh and Rutter had previously bought deer from a different captive deer facility owned by Rutter’s father, Ron Rutter. Supp. Fact Hist. [28] at p. 1. A third Pennsylvania-based captive facility, owned by Carl Rockey (“Rockey”), bought deer from Ron Rutter in June 2012. Rockey Deer Purchase Invoice [28-3]. A CWD-Positive deer was found on Ron Rutter’s facility in October 2012. Supp. Fact Hist. [28] at p. 1.

In October 2012, the Pennsylvania Department of Agriculture placed a five (5) year quarantine on the Luckenbaugh, Rutter, and Rockey facilities. *See* Luckenbaugh Quarantine Ord. [28-1]; Supp. Fact Hist. [28] at p. 1; Rockey Quarantine Ord. [28-4]. Luckenbaugh’s quarantine was lifted in 2014. Luckenbaugh Quarantine Release [28-2]. There was no depopulation or reported CWD incidence on Luckenbaugh’s property during its quarantine. Supp. Fact Hist. [28] at p. 1. Rutter decommissioned his facility two years into his five year quarantine, removed the high fence surrounding the property, and sold his property. *Id.* Rockey’s quarantine was lifted in 2017. Rockey Quarantine Release [28-5]. There was no depopulation, sampling, or reported CWD incidence on Rockey’s facility during its quarantine. Supp. Fact. Hist. [28] at p. 2. However, no mention is made as to Rutter’s father’s facility.

In October 2012, Defendants received information that the subject deer had come from a herd that may have been exposed to CWD. Defs.’ Mot. Establish Depopulation Protocol And For

² Attached as an Appendix to this Order.

Authorization To Retain Private Contractor [hereinafter “Defs.’ Mot.”] [21] at ¶ 2. In November 2012, Defendants proactively self-reported their malfeasance to the United States Attorney’s Office and, subsequently, the Mississippi Department of Wildlife, Fisheries, and Parks (the “MDWFP”) placed Turkey Trot under quarantine. Supp. Fact Hist. [28] at p. 2; Defs.’ Mot. [21] at ¶¶ 2-3. In the three (3) years following Turkey Trot’s quarantine, the MDWFP sampled³ 20, 20, and 16 deer, respectively, and none of these deer were CWD-Positive. Depopulation Hearing at pp. 54-55.

Both the State and the Defendants have suggested depopulation protocols for Turkey Trot. They are analyzed below.

III. THE PARTIES’ PROPOSED DEPOPULATION PLANS

a. The MDWFP’s Depopulation Plan

The MDWFP has regulatory authority over captive deer facilities and CWD prevention in Mississippi.⁴ As evidenced by their recent, and apparently effective, battle against CWD in Issaquena County, the MDWFP takes any possible CWD occurrences in Mississippi extremely seriously. They have recommended that Turkey Trot be completely depopulated. Depopulation Hearing at pp. 6, 33-34, 37. The MDWFP’s main goal is to keep CWD out of Mississippi, and they argue that complete depopulation is necessary in order to be completely confident that CWD is not present on Turkey Trot. *Id.* at p. 60.

b. The Defendants’ Depopulation Plan

Defendants have submitted two different depopulation plans. In both plans, Defendants request that a private contractor perform the depopulation instead of the MDWFP. Supp. Fact Hist. [28] at p. 4; Defs.’ Mot. [21]. Their first plan proposed a 50% depopulation followed by a five-year monitoring and testing program run by the MDWFP. Defs.’ Mot. [21] at ¶¶ 19-20. Their second and

³ “Sampling” means taking the deer’s life and testing a portion of the deer’s central nervous system or lymphatic tissue for the presence of CWD prions and/or certain characteristic lesions.

⁴ See Miss. Code Ann. § 49-7-58(3); Miss. Admin. Code § 40-2:8.2.

most recent plan proposes no depopulation at all. However, if the Court decides that depopulation is necessary, they propose a maximum of 5-10% depopulation followed by a three-year monitoring and testing program. Supp. Fact Hist. [28] at p. 4. This three year monitoring program would be performed by the private contractor and supervised by the MDWFP. *Id.* at p. 5.

Defendants base their reasoning for their second plan, and propose the Court do the same, on the United States Department of Agriculture's ("USDA") CWD Program Standards (the "USDA Program Standards").⁵ Supp. Fact Hist. [28] at pp. 3-4; Defs.' Herd Mgmt. Plan [28-8]. The USDA Program is an optional program states may follow to comply with the legal requirements outlined in 9 C.F.R. §§ 55 and 81, the federal CWD regulations. United States Dept. of Agriculture, CHRONIC WASTING DISEASE PROGRAM STANDARDS at 5 (2014) [hereinafter USDA PROGRAM STANDARDS]. Twenty-eight states follow this program.⁶ The USDA Program Standards classify herds and animals based on their CWD exposure level. This classification determines the management options available for herds and animals suspected or confirmed to be exposed to CWD. USDA PROGRAM STANDARDS at Part B.

IV. ANALYSIS

The Court understands the very real threat CWD poses if it were to spread any further into Mississippi. Hunting is a significant economic driver in many rural communities and the health of wildlife populations is important to every citizen of our state. Citizens and visitors to our state rely on state agencies to take educated, science-based actions to protect Mississippi's ecosystem and wildlife. However, this Court also considers the unreasonable and extreme consequences of (1) destroying a perfectly healthy deer herd and (2) taking no action at all. For the reasons below, this Court orders a

⁵ Codified at 9 C.F.R § 55.

⁶ VOLUNTARY NATIONAL CWD HERD CERTIFICATION PROGRAM, https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/sa_alternate_livestock/sa_cervid_health/sa_cwd/ct_farmed (last visited Aug. 1, 2018).

five-year quarantine of Turkey Trot, effective immediately. During this five-year quarantine, Turkey Trot will be subject to the annual sampling and testing of twenty-two deer by the MDWFP, in accordance with MDWFP CWD testing and sampling guidelines and protocols found in the MDWFP Chronic Wasting Disease Response Plan (the “MDWFP Response Plan”).⁷ Additionally, every deer mortality occurring during this five-year quarantine will be tested for CWD in accordance with MDWFP CWD testing and sampling guidelines and protocols found in the MDWFP Response Plan. If any deer within Turkey Trot tests positive for CWD during this five-year quarantine, the MDWFP shall completely depopulate Turkey Trot under the terms and conditions that will be established by this Court as hereafter set forth.

a. Immediate Whole-Herd Depopulation is Inconsistent With Established MDWFP Policy

The MDWFP proposes that Turkey Trot be completely depopulated. This plan errs on the side of caution, and the Court agrees that the only way to be 100% certain that CWD has not infiltrated Turkey Trot is to depopulate 100% of the herd. This Court has said “[a]ny deer potentially bringing in CWD to Mississippi should be tested, and the only way to test is to destroy the deer and test a part of the deer’s brain.” *United States v. Slade*, No. 2:16-CR-2-KS-MTP (S.D. Miss. June 7, 2017) (Starrett, J.). However, given the length of time that has passed and the epidemiology of CWD, a complete depopulation of Turkey Trot is excessive and contrary to the MDWFP’s CWD guidelines.

The MDWFP Response Plan, published in August 2017, illustrates their management actions should CWD ever be discovered in Mississippi.⁸ All management actions in this plan are premised on finding a *confirmed CWD-Positive* deer. Once a CWD-Positive deer is confirmed, the MDWFP will institute three management zones of increasing radius emanating from the confirmed CWD-Positive

⁷ Mississippi Department of Wildlife, Fisheries, and Parks, CHRONIC WASTING DISEASE RESPONSE PLAN (2017) [hereinafter MDWFP RESPONSE PLAN].

⁸ “We do have a CWD response plan so that if we find that we have failed, through whatever means, in keeping [CWD] out [of Mississippi], we will be able to activate immediately and try to minimize its spread throughout the state.” Depopulation Hearing at pp. 51-52.

deer's location.⁹ MDWFP RESPONSE PLAN at pp. 6-7. Each zone has its own management actions which decrease in severity as the radius from the CWD epicenter increases. *Id.* Within the “High Risk Zone”—the five-mile radius zone immediately surrounding the confirmed CWD-Positive deer—the MDWFP Response Plan states that the MDWFP will sample and test deer in the zone to a sufficient statistical probability “to detect CWD with 95% confidence if the disease exists at a prevalence of at least 1% throughout the zone.” *Id.* at p. 7. The number of deer sampled is dependent upon the population of the zone's herd.¹⁰ If no additional CWD-Positives are found after this sampling goal is met, sampling is reduced to only suspect animals, and roadkill samples are taken from the CWD-Positive county and all adjacent counties for five years. *Id.* at p. 7.

The MDWFP Response Plan has additional guidelines for “if CWD is *confirmed* within a captive cervid facility within Mississippi.” *Id.* at p. 8 (emphasis added). All deer within the facility will be depopulated and tested. The MDWFP will trace all animals or reproductive material emanating from the CWD-Positive facility to another Mississippi facility in the previous five years. The transferee facility will be quarantined and the transferred deer will be sampled immediately. “After the average CWD incubation period of two years has elapsed[.]” the MDWFP will sample and test the herd to a sufficient statistical probability “to detect CWD with 95% confidence if the disease exists at a prevalence of at least 1% throughout the herd.” *Id.* Additionally, any captive facility within five miles of the initial confirmed CWD-Positive deer will be sampled to the same confidence level. *Id.*

The MDWFP's whole-herd depopulation recommendation for Turkey Trot is contrary to their own guidelines. The MDWFP Response Plan is premised on the discovery of a *confirmed* CWD-Positive deer. As such, the MDWFP's plan to protect Mississippi and its residents from the spread of

⁹ The MDWFP followed this plan and instituted these zones when a CWD-Positive deer was found in Issaquena County on January 25, 2018. *See* CWD MANAGEMENT ZONE, <http://www.mdwfp.com/media/254611/cwd-management-zone.pdf> (last visited Aug. 1, 2018).

¹⁰ *See Id.* at Appendix G.

CWD, a plan they have already implemented in the state, is less aggressive than what they are proposing. The only time the MDWFP Response Plan prescribes whole-herd depopulation is when CWD is confirmed within a captive facility. CWD has not been confirmed on Turkey Trot. The state knew about Turkey Trot's possible CWD exposure in November 2012 when it was quarantined. In the years following this quarantine, the MDWFP found that sampling 20, 20, and 16 deer was sufficient to monitor for CWD. The Court agrees with the Defendants when they say "depopulation at this time is excessive." Supp. Fact Hist. [28] at p. 6.

b. Whole-Herd Depopulation is Inconsistent With Current CWD Science

For the case at hand, whole herd depopulation is scientifically inappropriate for three reasons. First, Turkey Trot has been quarantined for nearly six years, which is three times longer than CWD's accepted average incubation period. Second, CWD spreads rapidly through captive herds, and no CWD-Positive deer have been found. Third, death occurs rapidly after the onset of CWD symptoms, and no unusual deaths have been reported on Turkey Trot. Each of these points is supported by both the testimony offered by both parties in this matter, as well as the current scientific literature.¹¹

i. CWD's Incubation Period

A disease's "incubation period" is "the period between the infection of an individual by a pathogen and the manifestation of the illness or disease it causes." DEFINITION OF INCUBATION PERIOD, <https://www.merriam-webster.com/dictionary/incubation%20period>. CWD's average incubation period is approximately sixteen months to two years. The maximum incubation period is approximately five years.

¹¹ This Memorandum and Order cites many of the same scientific papers as the MDWFP Response Plan. *See* MDWFP RESPONSE PLAN at p. 4-5.

CWD's incubation period range was confirmed by testimony from both parties in this matter. William McKinley,¹² Deer Program Coordinator for the MDWFP, stated, "the incubation period . . . can be up to five years. It most often is not." Depopulation Hearing at p. 60. When asked about the primary incubation period for CWD, William McKinley stated, "[g]enerally it's around 18 months, but it can be up to five years." *Id.* at pp. 87-88. Dr. Christopher Flood, an expert in microbiology,¹³ stated that CWD's average incubation period range was "16 months to five years." *Id.* at p. 118. Finally, Dr. Glen Shearer, an expert in the field of infectious diseases and chronic wasting disease,¹⁴ stated, "the vast majority of data points to [an incubation period of] about a year and a half, maybe two years." *Id.* at p. 214. Dr. Shearer also stated that "[five years is] a general working definition of the outer boundary of CWD," and that an outer boundary of five years is a "good working, pragmatic number." *Id.* at pp. 222, 215-216.

This testimony is consistent with the scientific literature on CWD. In the natural progression of the disease, the minimum incubation period "is a minimum of approximately 16 months[.]" Williams, *supra* at 532. The maximum incubation period in free-ranging animals is difficult to determine due to lack of variable control, but "average incubation periods probably range from 2 to 4 years." *Id.* "In captive cervids, most cases occur in animals 2 [to] 7 years of age." Belay et al., *supra* at 977. "[I]t is possible, although we think unlikely, that these deer had [an incubation period of longer than 18 months] before the [CWD prion] became detectable in tissues." Candace K. Mathiason et al., *Infectious Prions in the Saliva and Blood of Deer with Chronic Wasting Disease*, 314 SCIENCE 133, 135 (2006).

ii. CWD's Communicability

¹² While he was not offered as an expert under Fed. R. Evid. 702, William McKinley's opinion testimony was entered into the record without objection.

¹³ Dr. Flood offered as an expert in CWD, however, upon objection, he was only accepted as an expert in microbiology under Fed. R. Evid. 702. *Id.* at p. 113.

¹⁴ Dr. Shearer was accepted by the Court as an expert in the field of infectious diseases and chronic wasting disease under Fed. R. Evid. 702. *Id.* at 208-209.

CWD tends to move rapidly through herds. This effect is exacerbated when the herd is in captivity. Dr. Flood stated that “[CWD] is spread very rapidly. Once it gets into a population, it’s going to move.” Depopulation Hearing at p. 151. This statement was corroborated by Dr. Shearer, who described CWD as “exquisitely contagious.” *Id.* at p. 220. Dr. Shearer stated:

[T]he bad thing about CWD is that it’s very communicable and it’s very rapid. But the good thing about CWD . . . is that it’s very communicable and it’s very rapid. So that means if it’s present, you’re probably going to see it pretty quickly.

Id. at p. 215.

The scientific literature supports these assertions. “[CWD] can be highly transmissible within captive deer and elk populations.” Belay et al., *supra* at 977. “In dense free-ranging deer populations, CWD prevalence can reach as high as 30%, however in captive herds, prevalence can climb to nearly 100%.” Sigurdson & Aguzzi, *supra* at 612. “In farmed herds naturally affected by CWD, rarely will more than one animal be affected at a time.” Williams, *supra* at 532. The presence of CWD “in captive herds varies considerably from < 1% in some farmed herds with recent introduction of the disease to essentially 100% in CWD endemic research facilities.” *Id.*

iii. CWD’s Lethality

Once an animal begins showing external signs of CWD and the incubation period ends, both the witnesses and the scientific literature agree that death is soon to follow. William McKinley stated, “[o]nce the onset of symptoms occur, they occur relatively rapidly, and then the animal dies.” Depopulation Hearing pp. 62-63. Dr. Shearer stated that “death occur[s] in three or four weeks, maybe three or four months. So very rapid death once symptoms occur.” *Id.* at p. 214. Again, this testimony is consistent with CWD science. “Death typically occurs within 4 months, although a few animals survive as long as a year.” Williams, *supra* at 532. “Most animals with the disease die within several months of illness onset In rare cases, illness may last for ≥ 1 year.” Belay et al., *supra* at 977.

iv. Whole-Herd Depopulation As It Pertains To Turkey Trot

Positive evidence has not been found or produced that establishes that a CWD-Exposed deer was introduced onto Turkey Trot in 2012. The best-case scenario is that no deer imported into Turkey Trot from Pennsylvania ever was in the same facility as a deer that came from a facility that had a CWD-Positive deer. The worst-case scenario is that one of the deer imported into Turkey Trot was exposed to CWD and brought it into Turkey Trot. However, based on the testimony given and the scientific literature examined, this worst-case scenario is extremely unlikely.

First, CWD's incubation period is anywhere between sixteen months to five years. William McKinley, Dr. Flood, and Dr. Shearer all agree that a five-year incubation period is a statistical outlier and likely the outer boundary of CWD's incubation period. The three witnesses and the scientific literature all point to an average incubation period of approximately sixteen months to two years. The scientific literature suggests that once a captive facility is exposed to CWD, the disease moves rapidly throughout the population. As Dr. Flood aptly stated, once CWD is introduced into a population, "its going to move." Finally, the witnesses and the scientific literature agree that once the incubation period ends, death occurs between four months to a year later, with a year being a statistical outlier.

Using the long end of the average incubation period, Turkey Trot has been under quarantine for three consecutive incubation periods. Since 2012, there have been two reported deer that appeared emaciated. Both of these deer were killed and subsequently tested. Neither tested positive for CWD. Other than those two deer, there have been no reports from either the MDWFP or Defendants of any deer on Turkey Trot displaying any CWD symptoms. If the worst-case scenario was true and CWD was introduced to Turkey Trot in early 2012, a non-zero number of deer would have been exposed to CWD. Assuming these deer are statistical outliers in all respects, the disease would have incubated for five years. In early 2017, these deer would begin showing the traditional signs of CWD infection. Again, assuming these deer are statistical outliers, they would have begun dying off in early

2018. Given the aggressiveness of this disease—both in its communicability and lethality—and the lack of animal die-off on Turkey Trot, it is extremely unlikely that this worst case scenario is the case.

Assuming that CWD was introduced to Turkey Trot in early 2012 and a non-zero number of deer were infected, the more likely scenario is that most would follow the statistical averages. The disease would have incubated for sixteen months to two years. In late-2013 to early-2014, deer would begin exhibiting behavioral changes, excessive salivation, and severe weight loss. Four months later, they would begin to die. Within this group, there may be some that fall into the outlier range of the incubation period or the time from symptom onset to death, but there would be others within the normal statistical range to put either the MDWFP or the Defendants on notice that something isn't right. If their quick response to the two emaciated deer is an example of the parties' vigilance, they would have noticed droves of emaciated deer dying off in mid-2014. However, this scenario has not happened. Instead, Turkey Trot has been free of any CWD-suspect deer since its initial quarantine in 2012.

There is no evidence that CWD was introduced to Turkey Trot in 2012. There is only evidence that one CWD-Exposed deer *may* have been introduced to Turkey Trot. If CWD had been introduced, the MDWFP or Defendants would have seen it ravaging the deer herd. Given the length of time that has passed since Turkey Trot was possibly exposed to CWD, the characteristics of the disease at issue, and the subsequent lack of evidence of CWD on Turkey Trot, the Court finds that whole-herd depopulation is scientifically inappropriate for the specific set of facts presented in this case.

This finding should not be used to suggest that whole-herd depopulation is not an appropriate or scientifically viable option for CWD-exposed captive deer facilities in Mississippi or elsewhere. Whole-herd depopulation is appropriate in certain cases, and is the only way to be 100% sure that CWD is not present in a captive facility. However, given this specific set of facts, especially the fact

that the facility has already been quarantined for six years, and the Defendants' swift action to notify the appropriate authorities, whole-herd depopulation is not presently appropriate for Turkey Trot.

c. A Five Year Quarantine And Annual Sampling Will Confirm If CWD Is Present At Turkey Trot

The unique characteristics of CWD make it difficult to completely control. It has a long incubation period and spreads quickly through captive populations. While management decisions should be based on statistical and biological data, the Court is aware that outliers should be accounted for in any prescribed management action. For the reasons below, the Court finds that Turkey Trot should be quarantined for an additional five-year period, effective immediately.

While the MDWFP Response Plan is Mississippi's guiding protocol for CWD control, it does not specify a specific quarantine length for captive facilities in which CWD has not been confirmed. In this specific respect, the Court finds the USDA Program Standards persuasive. The USDA Program Standards define a "CWD-Suspect Herd" as "[a] herd for which preliminary laboratory tests from an approved laboratory, or clinical signs, suggest a diagnosis of CWD, as determined by a State official or APHIS employee, but for which official confirmatory laboratory results have been inconclusive or not yet conducted." The United States Dept. of Agriculture, CHRONIC WASTING DISEASE PROGRAM STANDARDS at 7 (2014). Turkey Trot's deer herd is not a CWD-Suspect Herd under this definition because no laboratory tests or clinical signs suggest a CWD diagnosis.

Under the USDA Program Standards and the loosest definition of the category, the only category Turkey Trot could qualify for is the "Trace-Forward Herd." A "Trace-Forward Herd" is "[a] herd that has received exposed animals from a CWD-positive herd within 5 years before the diagnosis of CWD in the positive herd or from the identified point of entry of CWD into the positive herd." USDA PROGRAM STANDARDS at 10. If the exposed animal traced forward to the herd is not removed,

“[t]he whole herd . . . *may* remain in quarantine for [5 years] from the last case or for a period of time as determined by a risk evaluation at the discretion of the State officials.” *Id.* at 38 (emphasis added).

This is the most applicable definition in the USDA Program Standards. However, by that definition, Turkey Trot is not a Trace-Forward Herd because it did not receive animals directly from a CWD-Positive herd. The three Pennsylvania captive facilities that received deer from Ron Rutter would be Trace-Forward Herds because they received animals from Ron Rutter’s facility six months before a CWD-Positive deer was found. CWD was never confirmed in the three Pennsylvania captive facilities, therefore Turkey Trot cannot be a Trace-Forward Herd.

Using these federal guidelines, the testimony given, and the scientific literature, a five-year quarantine is the most appropriate option for Turkey Trot. Five years is the most severe quarantine length for the only class Turkey Trot could remotely qualify for under the USDA Program Standards. The USDA Program Standards prescribe a five-year quarantine or another quarantine length at the discretion of the State agency. Given the severity of the MDWFP’s proposed depopulation plan, they would surely agree that the maximum quarantine would be appropriate. Turkey Trot has been under quarantine since November 2012. An eleven-year quarantine covers every known statistical outlier for CWD’s incubation period. This quarantine, coupled with annual sampling, will surely determine whether or not CWD is present at Turkey Trot.

i. The MDWFP Will Conduct This Annual Sampling

During Turkey Trot’s five-year quarantine, the MDWFP will conduct an annual sampling of twenty-two deer. These deer will be tested for CWD pursuant to the sampling and testing guidelines provided in the MDWFP Response Plan. The number of deer sampled is appropriate for two reasons.

First, the MDWFP found a lesser number appropriate in the years following Turkey Trot’s initial quarantine. When Defendants notified the MDWFP that Turkey Trot may have been exposed to CWD, the MDWFP had the option, pursuant to Miss. Code Ann. §§ 49-7-58(1)(a)(b) and (3), to

sample and test all deer on Turkey Trot. Instead, they found that sampling 20, 20, and 16 deer, respectively, in the following three years was appropriate to determine if CWD was present.

Second, sampling twenty-two deer per year during the quarantine falls into the MDWFP's sampling guidelines in their Response Plan.¹⁵ Assuming a population size of 300, sampling twenty-two deer per year is statistically sufficient to detect CWD with 90% confidence if the disease exists at a prevalence of at least 10% throughout the herd. Sampling at this confidence level for five consecutive years will amount to 110 deer sampled over the five-year quarantine. This is similar to sampling at a 95% confidence level if the disease exists at a prevalence of at least 2% throughout the herd, which results in a total sample size of 118. Recall that when CWD is *confirmed* in Mississippi, the MDWFP Response Plan calls for sampling sufficient to detect CWD with 95% confidence if the disease exists at a prevalence of at least 1% throughout the herd. The proposed sampling regimen is almost as accurate as the MDWFP's most severe sampling protocol, and will be sufficient to detect CWD with 95% confidence if the disease exists at a prevalence of almost 2% throughout the herd. This sampling regimen, coupled with the additional five-year quarantine, should leave no doubt whether or not CWD is present on Turkey Trot.

The Court understands that the Statistical Sampling Recommendations in Appendix G are based on perfectly random sampling. Sampling Turkey Trot will be inherently skewed due to weather conditions, animal movement, animal density, seasonal changes, and sampling methods.

d. The MDWFP Is, And Should Remain, Mississippi's First Line of Defense Against CWD

Defendants propose that the Court allow a private contractor of Defendants' choosing to perform any sampling or depopulation of Turkey Trot. Supp. Fact Hist. [28]. Defendants claim that allowing the private contractor to handle the sampling and depopulation will be cheaper and more

¹⁵ See MDWFP Response Plan, Appendix G.

efficient than allowing the MDWFP to handle the depopulation. *Id.* For the reasons stated below, the Court finds that the MDWFP should handle the annual sampling and monitoring of Turkey Trot.

First, the MDWFP has statutory authority over CWD management in Mississippi. “The [MDWFP] shall have plenary authority in matters related to the importation of white-tailed deer, white-tailed deer in enclosures, and prevention of the introduction of [CWD] into the native wildlife population.” Miss. Code. Ann. § 49-7-58(3). The Court cannot allow a private entity to usurp the MDWFP’s statutorily assigned position as the tip of the spear in the fight against CWD. The MDWFP has an established plan for managing CWD in Mississippi, a plan that has proven effective in Issaquena County. The MDWFP is accountable to the citizens of Mississippi and a private company is not. The MDWFP’s interests are the interests of the citizens and the State as a whole and a private company’s interests are in its margins. The MDWFP is free to outsource whatever amount of work as their budget and circumstances allow, but this Court will not bypass the statutorily assigned state agency and order that it subcontract its assigned duties, especially when it concerns a matter of such importance to Mississippi’s citizens and wildlife.

Second, the MDWFP has statutory authority over captive deer facilities in Mississippi. “The [MDWFP] shall have plenary power to regulate all commercial and noncommercial wild animal enclosures in order to conserve and protect native wildlife for all citizens to enjoy” Miss. Code Ann. § 49-7-58.4(1). “No person may possess a live white-tailed deer in Mississippi unless that person possesses a valid permit issued by the [MDWFP].” Miss. Admin. Code 40-2:8.2(A)(1). The Mississippi legislature decided that the MDWFP is the primary regulatory body when it comes to captive deer facilities in Mississippi.

Following that line of logic, the MDWFP’s CWD protocols, not the USDA’s, govern CWD management in Mississippi. Defendants argue that Turkey Trot’s deer herd falls under classifications in the USDA Program Standards, but Mississippi does not follow the USDA Program Standards.

Mississippi's protocols for CWD management and control are contained in the MDWFP Response Plan. Again, the Court notes that this plan has proven effective in Mississippi. Miss. Code Ann. § 49-7-58.2(1) states, "The [MDWFP] shall develop and implement a program for inspecting, monitoring, testing and preventing chronic wasting disease." The MDWFP has developed and implemented this program with great success. "If it ain't broke, don't fix it."¹⁶

For the reasons above, the Court will not allow a private company to assume the role of the MDWFP in the fight against CWD. The MDWFP has statutory authority over CWD control and captive white-tailed deer facilities in Mississippi. The agency has been proactive and effective in addressing CWD in Mississippi, and the Court will not replace it. The MDWFP will control the sampling and testing of any and all deer on Turkey Trot during its five-year quarantine, pursuant to the sampling and testing guidelines provided in the MDWFP Response Plan and this order.

i. The Funding For Annual Sampling Will Be Provided By Defendants

Defendants shall pay to the Clerk of this Court the sum of \$120,000.00 to be held in the registry of the Court. All sampling expenses shall be paid for from this fund, and the MDWFP shall no less frequently than annually provide the Clerk with an itemization of expenses for the annual sampling provided for herein. The Clerk will take the necessary steps to repay the MDWFP the sums expended from the fund. At the end of the quarantine period and conclusion of the sampling called for herein, the remaining balance of the fund shall be paid to the Director of the MDWFP to be used for CWD testing and prevention services as approved by the Director. Following payment to the MDWFP, the Clerk of this Court shall have no further obligations to oversee the application of same.

If one or more CWD-Positive tests result on Turkey Trot during the testing period, then the Court will order the whole-herd depopulation protocol be instituted on Turkey Trot and will

¹⁶ Unknown philosopher.

consider the assessment of further restitution and depopulation expenses. The Court retains jurisdiction of this case for the assessment of additional restitution or depopulation expenses.

V. CONCLUSION

For the reasons stated above, the Court orders that Turkey Trot be placed under a five-year quarantine, effective immediately. During this five-year quarantine, Defendants shall report any deer mortality or herd health issues occurring on the property to the MDWFP. The MDWFP shall test all deer mortalities occurring during the five-year quarantine for CWD. During this five-year quarantine, Defendants shall allow the MDWFP to enter Turkey Trot to sample and test twenty-two deer per year pursuant to the sampling and testing guidelines in the MDWFP Response Plan. Defendants shall pay the above amount to the Clerk of this Court. The MDWFP shall be refunded any reasonable itemized expenses required to complete the ordered sampling and testing. Defendants shall comply with all relevant federal and state statutes regarding captive cervid facilities and CWD management.

During this five-year quarantine, Defendants shall be responsible for maintaining the integrity of the fence surrounding Turkey Trot, and shall take all reasonable precautions to prevent any breach along its border. This Court retains jurisdiction on this case for the above-mentioned five-year period to consider any changes in circumstances regarding the presence of CWD on Turkey Trot or to consider adjustments in the required costs of implementing this order, any further restitution expenses, and any further depopulation or expenses.

SO ORDERED AND ADJUDGED, on this, the 13th day of August, 2018.

s/Keith Starrett
KEITH STARRETT
UNITED STATES DISTRICT JUDGE