

Washington State Chronic Wasting Disease (CWD) Management Plan

Washington Department of Fish and Wildlife
Wildlife Program

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1 Chapter 1: Chronic Wasting Disease Plan Overview

2 Purpose and goals of plan

3 The mission of the Washington Department of Fish and Wildlife (hereafter the Department) is to
4 preserve, protect, and perpetuate the state's fish, wildlife, and ecosystems while providing
5 sustainable fish and wildlife recreational and commercial opportunities. This mission represents
6 the deeply held value of connection with the natural world shared by all Washingtonians and
7 forms the basis of the Department's commitment to be prepared and able to respond to emerging
8 situations that represent significant risk to the health and longevity of the state's native wildlife.
9 In the case of risks to big game species like deer (mule deer, *Odocoileus hemionus hemionus*;
10 black-tailed deer, *O.h. columbianus*; white-tailed deer, *O. virginianus*), elk (*Cervus canadensis*),
11 and moose (*Alces alces*), the consequences of inaction could profoundly affect the social fabric
12 of Washington's vibrant hunting and outdoor recreation culture, as well as the economic benefits
13 that support communities and conservation throughout the state. Chronic wasting disease (CWD)
14 is one such risk and, of the many diseases affecting wild cervids (members of the deer family
15 Cervidae) in North America, has the greatest potential to negatively affect wild cervid
16 populations if not proactively addressed and diligently managed if detected.

17 Proactive prevention and management of CWD is of paramount importance given the
18 increasing evidence that long-term population declines are likely when outbreaks are unmanaged
19 (Monello et al. 2014, Edmunds et al. 2016, DeVivo et al. 2017). Measures to improve prevention
20 and early detection are critical because it is exceedingly difficult, and likely impossible, to
21 eliminate CWD with existing management tools once the disease becomes endemic (i.e.,
22 established and widespread within an affected population). For example, of the 25 states that
23 have detected CWD in their wild cervid populations, New York is the only one where it was
24 apparently eradicated after detection in wild deer (Evans et al. 2014). New York's presumed
25 success was likely due to a combination of factors, including a robust surveillance that enabled
26 early detection and response and, once detected, prompt implementation of several emergency
27 regulations to prevent the spread of CWD (Evans et al. 2014).

28 Successful management of CWD requires substantial funding and staff resources well
29 beyond what state wildlife agencies can support on their own (Bishop 2004, Vaske 2010).
30 Hunters help support disease management activities financially through license purchases and

31 are a valuable resource for obtaining samples for testing. If CWD becomes established in a
32 population, hunters may be less likely to participate in hunting activities (Vaske 2010), which
33 could decrease agency capacity to manage the disease. Any detection of CWD in wild cervids in
34 Washington would need to be addressed through aggressive management to prevent its
35 establishment and spread within the state. This would require sustained commitment by wildlife
36 managers, government entities, Tribes, and the public, and some proposed actions could be
37 difficult to implement due to logistical and budgetary constraints, as well as potential conflicts
38 between CWD best management practices and the societal value of wildlife to various
39 stakeholders. However, if the following actions are implemented in a reasonable manner
40 appropriate to the situation at hand, the long-term ecological and recreational benefits of actively
41 preventing establishment of CWD in Washington would likely outweigh the financial and social
42 costs.

43 Washington is home to several wild cervid species, including mule deer, black-tailed
44 deer, white-tailed deer, elk, and moose. In addition, two federally protected cervid species,
45 woodland caribou (*Rangifer tarandus caribou*) and Columbian white-tailed deer (*O.v. leucurus*),
46 are native to Washington. The intent of the Department is to respond to the risks and realities of
47 CWD with the goal of preventing introduction of the disease to wild cervid populations in
48 Washington and to minimize the long-term effects of the disease should it become established in
49 these populations. The Washington CWD Management Plan (hereafter the Plan) is structured
50 with the intent to be adaptable and support timely incorporation of new information from peer-
51 reviewed scientific sources and wildlife disease management practitioners as it becomes
52 available. The Plan has been written broadly for known susceptible species and, where
53 applicable, species-specific considerations are addressed. Since woodland caribou and
54 Columbian white-tailed deer are managed jointly with the United States Fish and Wildlife
55 Service (USFWS) and local Tribes, separate CWD plans will be developed for these two species
56 and they will not be addressed in this Plan.

57 This Plan identifies specific objectives for addressing the biological, administrative, and
58 social factors involved in effective management of the disease. The Plan also outlines the
59 strategies the Department will implement to meet each objective based on current best
60 management practices for the prevention and management of CWD in the wild, as recommended
61 by the [Association of Fish and Wildlife Agencies](#) (AFWA) (Gillin and Mawdsley 2018). These

62 strategies are designed to provide clear, timely, and effective guidance that will present the state
63 of Washington with the best chance to: 1) create a communication model that ensures that the
64 public and identified stakeholders are informed, engaged, and invested in the goals of the Plan;
65 2) prevent CWD from entering the state; 3) establish a robust surveillance plan to detect CWD as
66 early as possible should it enter Washington; and 4) establish a response plan to minimize the
67 long-term effects of CWD on cervid populations in Washington should the disease be detected.
68 Some proposed actions in this Plan will require support from the Washington State Legislature
69 and the Washington Fish and Wildlife Commission (the Commission) to implement.

70 **Authority**

71 The establishment of hunting seasons and management of game species, both captive and wild, is
72 consistent with the authorities granted by the Fish and Wildlife Commission and Department of
73 Fish and Wildlife by the Washington State Legislature through Title 77 of the Revised Code of
74 Washington. The Commission develops and adopts regulations (i.e., rules in the Washington
75 Administrative Code) pertaining to management of wildlife resources as granted under Title 77
76 authority. Various Commission and Department policies and procedures, including this Plan,
77 guide game management as well.

78 The Department and Commission are responsible for the management and protection of
79 fish and wildlife resources in Washington State. The Legislative mandate (RCW 77.04.012) for
80 the Commission and the Department includes the following directives for wildlife management:

- 81 • The Commission, director, and the Department shall preserve, protect, perpetuate,
82 and manage the wildlife.
- 83 • The Department shall conserve the wildlife resources in a manner that does not
84 impair the resource. The Commission may authorize the taking of wildlife only at
85 times or places, or in manners or quantities, as in the judgment of the Commission
86 does not impair the supply of these resources.

87 Development of a management plan to address emergence of a significant wildlife
88 disease is essential to meeting these directives. The Washington State Chronic Wasting Disease
89 Management Plan is consistent within the broader scope of the 2015-2021 Game Management
90 Plan (GMP; WDFW 2014), and in accordance with the Department's Hunting Season

91 Guidelines. The GMP (WDFW 2014) stresses the importance of science as a foundation for
92 developing regulations and conservation approaches to management.

93 The process of establishing and altering regulatory rules governing game species is a
94 multiple-step process. Legislative mandates and Commission guidelines for management of
95 these species require appropriate information such as current distribution, population status and
96 trend, and harvest and recreational objectives. Using available information, Department staff
97 develop rule recommendations to address emergent management issues, maximize sustainable
98 hunting opportunities, and promote conservation. The final step in the rule development process
99 occurs when the Commission adopts new rules and rule changes based upon recommendations
100 from the Department biological staff and public input. Major hunting season rules are set for
101 three-year intervals; minor adjustments occur annually, such as modifying special permit hunt
102 levels to address crop damage or nuisance problems, or sudden unexpected habitat or
103 environmental changes. Emergency rules can be implemented outside of these cycles in specific
104 circumstances. Emergency rules do not require public notice or hearing. They usually take effect
105 when filed with the Code Reviser and can remain in effect for up to 120 days after filing. An
106 agency can re-file the emergency rule if the agency has started the permanent rulemaking
107 process.

108 **Chronic Wasting Disease Management Goals, Objectives, and Strategies**

109 **Goal:** To prevent the establishment of CWD in wild cervid populations in Washington and
110 minimize the long-term effects of the disease should it enter these populations.

111 **Objective 1:**

112 Proactively build trust with and support from the public and stakeholders regarding CWD
113 management activities during each phase of the Plan

114 **Strategies:**

- 115 A. Establish a public advisory group within the first year of the Plan being adopted to
116 provide immediate feedback on proposed activities and assist in development and
117 implementation of strategies to improve communication with the public and
118 stakeholders
- 119 B. Implement long-term human dimensions initiative to determine baseline public
120 perceptions and awareness of CWD issues and additional periodic assessments that

- 121 will inform development and adaptation of culturally appropriate messaging and
122 outreach materials during each phase of the Plan
- 123 C. During pre-detection phase, implement annual schedule of communication and
124 outreach activities (Table 3) using **Key Pre-detection Messages** to raise general
125 awareness about CWD, its potential effects if it were to become established, and to
126 remind all parties of actions they can take to reduce the risk of CWD becoming
127 established in Washington
- 128 D. During initial-detection phase, implement annual schedule of communication and
129 outreach activities (Table 4) using **Key Initial-detection Response Messages** to
130 increase awareness of management actions the Department is implementing in
131 response to an initial CWD detection and any subsequent need for citizen assistance

132 **Objective 2:**

133 Reduce known risks for CWD entering Washington

134 **Strategies:**

- 135 A. Assess and prioritize risk factors through which CWD may enter the state
136 B. Assess and make recommendations for adjustments to current regulations and
137 creation of new regulations to mitigate those risks

138 **Objective 3:**

139 Minimize potential for CWD to become established in Washington by implementing a pre-
140 detection surveillance program upon adoption of the Plan

141 **Strategies:**

- 142 A. Secure support for proposed budget and capacity needs required to implement
143 program
144 B. Develop surveillance sampling design and schedule
145 C. Establish contacts, protocols, and infrastructure for sample acquisition

146 **Objective 4:**

147 Minimize potential for negative long-term effects of CWD on cervid populations in Washington
148 should CWD be detected during surveillance activities

- 149 **Strategies:**
- 150 A. Organize and complete a “tabletop” exercise with Department staff and stakeholders
- 151 to test the Initial Emergency Response plan and identify potential deficiencies and
- 152 needed improvements
- 153 B. Implement the Initial Emergency Response when CWD is detected
- 154 C. Implement monitoring to obtain estimates of appropriate disease and population
- 155 metrics to guide decisions about ongoing steps in management of the disease
- 156 D. Apply an adaptive management framework (Stankey et al. 2005) to monitor and
- 157 evaluate the effect of implemented management actions and use results to inform and
- 158 improve efficacy of actions during subsequent monitoring efforts

159 **Plan Components**

160 The Plan consists of multiple components, each developed as separate chapters that can be

161 adapted and improved as new information becomes available.

162 *Chapter 1: Overview*

163 *Chapter 2: Background*

164 Presents essential information that provides details about the disease, strategies for

165 responding to a disease outbreak, and the history of CWD surveillance in Washington.

166 *Chapter 3: Public Outreach and Communication*

167 Outlines outreach activities that will be implemented throughout the evolution and

168 implementation of the Plan.

169 *Chapter 4: Risk Assessment and Minimization*

170 Discusses risk factors and best management practices for prevention within the context of

171 current Washington state regulations and practices. Also provides prioritized

172 recommendations for revision of current regulations and development of additional

173 regulations critical to successful achievement of the Department’s overall CWD

174 management goals.

175 *Chapter 5: Pre-detection Surveillance*

176 Describes a framework for critical surveillance activities the Department will implement

177 once legislative support and funding has been secured.

178 *Chapter 6: Initial Emergency Response*

179 Describes the Department's initial localized emergency response to a CWD detection.
180 Also, describes the establishment of an Incident Management Team, CWD management
181 areas, and assessment of the prevalence and distribution of CWD after initial detection,
182 specific to the area where the detection occurred.

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208 **Chapter 2: Chronic Wasting Disease Background**

209 The background information provided here is not meant to be a comprehensive literature review
210 of the current research and information related to CWD. Rather, it is meant to provide basic
211 foundational knowledge about the disease. The following summary will help the reader
212 understand why proposed management actions in subsequent chapters are appropriate based on
213 current knowledge of the disease and the potential impacts the disease would have on
214 Washington's wildlife resources, economy, and human health.

215 **Susceptible Species**

216 Chronic wasting disease is a universally fatal brain disease that can afflict members of the cervid
217 (deer) family. To date, natural infections (i.e. diseased animal infects susceptible animal) have
218 been documented in mule deer, white-tailed deer, elk (summarized by Williams et al. 2002),
219 moose (Baeten et al. 2007), reindeer (*Rangifer tarandus*; Benestad et al. 2016), European red
220 deer (*Cervus elaphus*), and sika deer (*Cervus nippon*; Lee et al. 2013). Experimental infections
221 (i.e. animals are infected through routes that do not occur naturally) have produced the disease in
222 fallow deer (*Dama dama*; Hamir et al. 2011), Reeve's muntjac (*Muntiacus reevesi*; Nalls et al.
223 2013), and several non-cervid species (summarized in Sakudo 2019).

224 **Human Health Concerns**

225 Bovine spongiform encephalopathy (BSE), also known as mad cow disease, caused variant
226 Creutzfeldt-Jakob disease (vCJD) in genetically susceptible humans after consuming BSE-
227 infected beef (Brown et al. 2001). This example of a zoonotic (disease of animals causing illness
228 in humans) prion disease logically warranted studies on the potential for CWD to cause disease
229 in humans, especially raising concerns among the hunting community. Researchers demonstrated
230 that in molecular studies, deer and elk CWD prions did not easily convert normal human prions
231 into a diseased form (Raymond et al. 2000). At the population level, a study conducted in
232 Colorado did not find increased risk of CJD in humans in areas with high CWD prevalence in the
233 local deer and elk populations (MaWhinney et al. 2006). However, transmission of CWD to non-
234 human primates shows discrepancies in susceptibility depending on species. Squirrel monkeys
235 are highly susceptible to CWD (Race et al. 2014) and cynomolgus macaques, which are closer
236 genetic relatives to humans, lack susceptibility to CWD (Race et al. 2018). Due to these
237 uncertainties in species susceptibility and longer incubation periods (e.g. decades) associated

238 with human prion diseases well beyond study termination dates, it is prudent to exercise caution
239 and reduce exposure to CWD prions (Waddel et al. 2018). The World Health Organization
240 recommends keeping all known prion diseases from entering the human food chain, and the U.S.
241 Centers for Disease Control and Prevention advise against shooting, handling, or eating the meat
242 of any animal that looks sick or is acting strangely. Unfortunately, most CWD positive animals
243 are asymptomatic (not showing illness), so to reduce exposure risk, hunters are advised to wear
244 disposable gloves while field dressing game, thoroughly wash hands and equipment after
245 processing carcasses, avoid cutting and consuming brain, spinal cord, eyes, spleen, pancreas,
246 tonsils, and lymph nodes where CWD prions accumulate, and avoid consuming meat from an
247 animal that has tested positive (<https://wdfw.wa.gov/species-habitats/diseases/chronic-wasting>).

248 **Cause and Pathology**

249 Chronic wasting disease is caused by aberrant (i.e., abnormal) prion proteins which, unlike
250 normal prion proteins that are present throughout the body, are not broken down through normal
251 physiological processes. When the aberrant prion proteins come into contact with normal prion
252 proteins in the brain, they cause the normal prions to transform into aberrant ones. This
253 cascading effect results in the accumulation of protein plaques in the brain that cannot be broken
254 down and causes brain tissue to have a sponge-like appearance microscopically (Prusiner 1991).
255 This latter feature is the basis for the term transmissible spongiform encephalopathy (TSE), a
256 category of diseases which, in addition to CWD, includes other prion diseases such as scrapie in
257 domestic sheep, BSE in cattle, and Creutzfeldt-Jakob disease in humans.

258 Progression of the disease is slow and infected animals often do not show observable
259 signs of declining health until the later stages. Brain damage caused by CWD prions leads to
260 physical deterioration and abnormal behavior, with affected cervids developing a dull mental
261 status and losing their fear of humans and predators. Drooping ears, excessive water intake, and
262 drooling may occur. In the later stages of CWD, deer become progressively emaciated and
263 eventually die. There are no reports of animals recovering from CWD, and there is no known
264 cure or vaccine.

265 **Testing**

266 Tests available for CWD vary in reliability and efficient application depending on the species of
267 the animal being tested and if the animal is alive or dead. Current tests for CWD include

268 sampling methods appropriate for live and dead animals, but not all tests are approved for use by
269 the United States Department of Agriculture (USDA). There are also distinct differences
270 between these test types that lend themselves to very different applications in the field. The few
271 USDA-approved live animal tests available require capture and anesthesia of each animal being
272 tested, which makes application in large-scale disease surveillance and monitoring efforts
273 impractical. These live tests are generally better suited for use in research studies where a limited
274 number of wild animals are captured and anesthetized over a relatively short period of time.

275 Prion accumulation is most abundant in the obex region of the brainstem and the retropharyngeal
276 lymph nodes in the throat (Spraker et al. 2002; Miller and Williams 2002). Prion accumulation
277 within these tissues can vary during disease progression, and sampling single tissues may
278 increase the number of false negatives during surveillance. Preferred tissue samples from deer
279 target the lymph nodes where deer typically accumulate CWD prions early during the disease
280 course (Sigurdson et al. 2002). Accumulation of CWD prions in elk is more variable (Race et al.
281 2007) and warrants collection of samples from multiple sites to ensure an accurate diagnosis.
282 Consequently, tissue collection is dependent on species, available tissue during sample
283 collection, and circumstances dictated by management goals. Samples are submitted and
284 analyzed using USDA-accredited laboratories such as the Washington Animal Disease
285 Diagnostic Laboratory (WADDL) in Pullman, Washington.

286 **Transmission and Epidemiology**

287 In addition to the brain, CWD prions accumulate throughout the body, particularly in lymphatic
288 tissue such as lymph nodes and the spleen (Sigurdson et al. 2002). Infected cervids then excrete
289 CWD prions in saliva, urine, feces, semen and antler velvet potentially for months to years
290 before displaying any sign of the disease (Angers et al. 2009; Haley et al. 2009, 2011; Kramm et
291 al. 2019). In that time, infected cervids can contaminate the environment and expose other
292 cervids to infectious prions (Gough and Maddison 2010; Angers et al. 2009). Transmission to
293 offspring may also occur *in utero* (Nalls et al. 2013; Selariu et al. 2015), and CWD prions are
294 found in trace amounts in the blood, fat, and muscle of deer (Angers et al. 2006; Mathiason et al.
295 2006; Race et al. 2009); thus, all parts of an infected animal are potential sources of infectious
296 prions.

297 Aberrant prions, such as those that cause scrapie in domestic sheep and CWD in cervids,
298 can remain infectious in the environment for years and are notorious for being resistant to
299 methods typically used to disinfect environments that are contaminated with other infectious
300 agents (Georgsson et al. 2006). There are no safe or practical methods to remove prions from the
301 environment.

302 Transmission occurs both directly via animal-to-animal contact (by prions excreted in the
303 saliva, urine, and feces), and indirectly via exposure to contaminated environments with excreta
304 and carcass remains (Mathiason et al. 2009). Infectious CWD prions can pass through the
305 gastrointestinal tracts of scavengers, such as crows and coyotes, which has implications for
306 dispersal but passage through the gut also destroys some infectious prions, further complicating
307 the net impact of scavengers in disease transmission (VerCauteren et al. 2012; Nichols et al.
308 2015). Prions can bind to soil (Johnson et al. 2006) and, experimentally, were shown to travel up
309 the stems and leaves of wheat grass, which when fed to “cervidized” hamsters (i.e., hamsters
310 genetically modified to express cervid prion proteins), produced a TSE disease demonstrating
311 potential unknown risks native forage poses to wildlife, livestock, and humans (Pritzkow et al.
312 2015).

313 Based on statistical models, in a newly affected area, transmission is a function of direct,
314 animal-to-animal contact and is strongly influenced by cervid population density (Almberg et al.
315 2011). However, over time, these models predicted that CWD-infected cervids excrete prions
316 throughout their environment and indirect CWD transmission becomes more common (Almberg
317 et al. 2011). While these models are intuitively reasonable, transmission dynamics remain poorly
318 understood due to the lack of empirical data early during a CWD epidemic.

319 In deer, the incubation period (i.e., time from infection until development of clinical signs
320 of disease) for CWD may last several years (average incubation period probably 2-4 years), and
321 disease prevalence generally increases with age (Williams 2005) with higher prevalence in adults
322 relative to young of the year and yearlings (Miller and Conner 2005). In general, CWD
323 prevalence in North American deer is about twice as high in adult males as it is in adult females
324 (Saunders et al. 2012, DeVivo et al. 2017). Chronic wasting disease prevalence is generally
325 higher in deer than in elk and is relatively rare in moose (summarized by Rivera et al. 2019).
326 Specific to deer, prevalence tends to be higher in mule deer in areas where mule and white-tailed

327 deer are equally common. In areas where a single deer species is dominant, CWD prevalence
328 tends to be comparable (summarized by Rivera et al. 2019).

329 Genetics play a role in CWD susceptibility, and genetic variation found in deer and elk
330 contributes to variation in infection rates and incubation periods (summarized by Sigurdson and
331 Aguzzi 2007). Studies of these genetic variations reveal potential for selection of genotypes that
332 are less susceptible to CWD in the population over time (DeVivo et al. 2017; Monello et al.
333 2017). Research has demonstrated that deer with less susceptible genotypes live longer as
334 asymptomatic carriers (Jewell et al. 2005) and deer and elk with less susceptible genotypes may
335 shed fewer prions and for a shorter amount of time compared to their more susceptible
336 counterparts (Plummer et al. 2017). However, CWD is fatal in all infected animals, and resistant
337 genotypes have not been identified in the wild. Even with increasing resilient genotypes in areas
338 with high CWD prevalence, natural selection may not mediate the long-term impacts of CWD on
339 populations (DeVivo et al. 2017).

340 **Population Effects**

341 Chronic wasting disease has contributed to population declines in some locations in mule deer,
342 white-tailed deer, and elk when prevalence is high (>30% in deer and >13% in elk; Monello et
343 al. 2014, Edmunds et al. 2016, DeVivo et al. 2017). Studies show little to no effect of CWD on
344 reproduction and recruitment of young (Dulberger et al. 2010, DeVivo et al. 2017). Instead,
345 population declines are primarily attributed to the direct effects of CWD on adult survival, which
346 limits lifetime productivity. Some evidence also suggests that CWD-positive animals are more
347 likely to be killed by predators and in animal-vehicle collisions (Krumm et al. 2005, Krumm et
348 al. 2009). Population impacts are most notable at high CWD prevalence, but even low
349 prevalence contribute to overall mortality and can limit population growth.

350 **Management Implications**

351 In addition to cervid population declines, CWD presents additional potential management
352 challenges, including the direct costs of disease management, redirection of agency staff time
353 and resources, and evaluation of potentially conflicting herd-specific management objectives.
354 After CWD was first detected in Wisconsin in 2002, over \$32 million was spent by state
355 agencies over the next 5 years responding to the outbreak, with the Wisconsin Department of
356 Natural Resources contributing 83% of the cost (Stuiber et al. 2006). Most of those costs were

357 spent on sample collection and testing, planning and policy development, public relations and
358 outreach, carcass disposal, deer and elk farm management, and research (Stuiber et al. 2006).
359 Potential declines in hunter participation, the resulting impact to local economies, and loss of
360 public confidence in resource management agencies may occur (Vaske 2010), although hunting
361 pressure remains high in some CWD endemic areas. Managers will also be faced with making
362 decisions about current herd management objectives and how they affect CWD prevalence and
363 potentially undesirable population declines. For example, management strategies that reduce
364 hunting pressure on males may inadvertently increase CWD prevalence in certain populations
365 (Miller et al. 2020). If these management strategies exist in areas with CWD, the Department
366 will need to reevaluate population objectives and consider harvest regimes that reduce the
367 number of males that are more likely to be infected. Shifts in harvest objectives such as this will
368 be challenging without public engagement and support.

369 **Geographical Occurrence**

370 Chronic wasting disease has been documented in wild or captive cervids in 26 states, 4 Canadian
371 Provinces, Finland, Norway, Sweden, and South Korea. To date, the nearest cases to Washington
372 were detected in Libby, Montana (less than 70 miles east of the Washington state line), where
373 CWD was first diagnosed in a female white-tailed deer that died in May 2019.

374 Washington-bordering states and provinces (i.e., Idaho, Oregon, and British Columbia)
375 have not detected CWD in wild or captive cervids (CWD Alliance). However, each jurisdiction
376 has their own criteria for testing that may depend on jurisdiction-specific resources, cervid
377 management priorities, and CWD risk management expectations. These differences in
378 surveillance intensity and priorities could produce delays in detection in cervid populations that
379 use multiple jurisdictions, and a lack of detection to date does not guarantee the absence of the
380 disease. Detection of CWD in states without previous detections in neighboring states has
381 occurred (e.g., Colorado, Wisconsin, New York, and West Virginia; CWD Alliance).

382 **Eradication**

383 Once established in an area, there are no known instances of CWD being eradicated without
384 human intervention. Despite intensive and costly efforts to eradicate CWD from the wild in
385 several states and provinces, there has only been one instance of successful eradication of CWD
386 once it was detected in the wild. This occurred in New York where an established pre-detection

387 surveillance program and an immediate aggressive response to the first detection of CWD in a
388 wild deer was credited with eradicating the disease from the wild population (Saunders et al.
389 2012). After the first detection of CWD in 2005, New York established a 16 km containment
390 area centered around the initial cases with emergency regulations including mandatory testing of
391 all harvested deer, and bans on rehabilitation of deer, transport of whole carcasses, use of deer
392 and elk urine, and possession of vehicle-killed deer within the containment area (Evans et al.
393 2014). New York also increased surveillance efforts from testing <1,000 deer annually to
394 >8,000 deer in 2005 (Evans et al. 2014) and depopulated the deer herd within the containment
395 area (Saunders et al. 2012). The estimated cost responding to the initial CWD detection in 2005
396 for New York State Department of Environmental Conservation (DEC) was \$1,000,000 (New
397 York State Interagency Chronic Wasting Disease Response Plan 2015-2025, 2015). In addition
398 to aggressive emergency tactics and access to funds that support wildlife health incidents, the
399 success of DEC's response to CWD was attributed to lack of environmental reservoirs of CWD
400 prions and other unknown disease foci in the state (Saunders et al. 2012) only achievable through
401 pre-detection surveillance and testing hundreds of deer annually. These two latter factors likely
402 separate the success observed in New York and the unsuccessful culling efforts in Wisconsin
403 (Almberg et al. 2011, Saunders et al. 2012).

404 **Control**

405 It is exceedingly difficult to control any disease once it enters a wildlife population due to many
406 factors inherent to wild animals (e.g., sick animals tend to seclude themselves and are difficult to
407 find). Specific to CWD, the lag between introduction of the disease into a population and
408 observation of symptomatic animals makes successful mitigation even more challenging.
409 Prevention is the best approach available to wildlife managers to avoid the consequences
410 associated with endemic wildlife diseases. Preventive measures often focus on human activities
411 and practices that reduce movement of CWD, such as restrictions on transporting whole
412 carcasses and live cervids and bans on feeding and baiting.

413 Information about the efficacy of long-term management strategies remains relatively limited but
414 is increasing as the body of completed CWD research continues to grow. States are also
415 implementing adaptive management frameworks that will allow for improved statistical
416 evaluation of management activities over time. Thus far, a few studies have used predictive
417 modelling to demonstrate that recreational harvest with additional reduction measures,

418 particularly selective removal of certain segments of the affected cervid population, may be
419 effective in maintaining or reducing disease prevalence (reviewed by Uehlinger et al. 2016).
420 Recent work conducted in Colorado showed that increasing or maintaining hunting pressure
421 resulted in flat CWD prevalence trends compared to areas where hunting pressure declined and
422 CWD prevalence increased (Miller et al. 2020). Their findings suggest that with sufficient
423 hunting pressure, CWD could be controlled in some mule deer populations especially when
424 prevalence is low (Miller et al. 2020). However, there are still uncertainties about CWD
425 transmission, persistence in the environment, transmission rates between sexes and among age-
426 classes, and the influences of season and habitat on CWD distribution and spread that make
427 control efforts hard to evaluate and extrapolate outcomes (Uehlinger et al. 2016). The
428 effectiveness of intensive non-selective culling for the control of CWD is debatable and depends
429 on the mode of transmission e.g., whether transmission is primarily direct among cervids or
430 indirect through the environment (reviewed by Uehlinger et al. 2016). General non-selective
431 culling to reduce cervid density and thus, contact rates among cervids is most likely effective
432 when transmission is primarily occurring directly from animal to animal early during an
433 outbreak, prior to significant prion environmental contamination (Almberg et al. 2011). Both
434 harvest and non-selective culling are most effective when implemented during an initial outbreak
435 and requires pre-detection surveillance to determine if certain management strategies are
436 warranted.

437 **Historical CWD surveillance in Washington**

438 The Department began symptomatic surveillance in 1995, whereby animals showing signs
439 compatible with CWD, such as dramatic weight loss (emaciation), drooling, lack of coordination,
440 drooping ears, or lack of fear of humans were targeted for CWD testing. Thirty-four
441 symptomatic animals have been tested since 1995. From 2001-2011, federal funding enabled the
442 Department to expand CWD surveillance statewide. During this period, 6,133 samples suitable
443 for testing were collected from deer, elk, and moose, primarily from hunter-harvested animals
444 (Table 1, from Washington Department of Fish and Wildlife, 2012).

445 Table 1. Washington Department of Fish and Wildlife chronic wasting disease surveillance
 446 results by species and year, 2001-2011.

Species	Result	Year											Total
		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
BTD	-	375	293	144	643	19	26	11	0	0	0	0	1511
	o ^a	-72	-30	-4	-49	-1	0	-2	0	0	0	0	-158
	+	0	0	0	0	0	0	0	0	0	0	0	0
WTD	-	67	189	221	313	272	282	226	177	156	206	158	2267
	o	-21	-34	-11	-13	0	-2	-5	-3	-6	-3	-3	-101
	+	0	0	0	0	0	0	0	0	0	0	0	0
Mule Deer	-	111	296	197	597	140	85	43	54	47	82	46	1698
	o	-17	-32	-9	-49	-6	-2	-1	-1	-4	-2	0	-123
	+	0	0	0	0	0	0	0	0	0	0	0	0
Deer Unk	-	4	11	17	28	7	20	16	3	22	38	7	173
	o	0	-3	-2	-2	-2	0	-5	0	0	0	0	-14
	+	0	0	0	0	0	0	0	0	0	0	0	0
Elk	-	104	119	72	52	13	5	31	11	12	36	23	478
	o	-17	-21	-8	-8	0	-1	-6	0	-2	-1	-3	-67
	+	0	0	0	0	0	0	0	0	0	0	0	0
Moose	-							0	0	4	0	1	5
	o							-1	0	0	0	0	-1
	+							0	0	0	0	0	0
Total	-	661	908	651	1633	451	418	328	245	241	362	235	6133
	o	-127	-120	-34	-121	-9	-5	-19	-4	-12	-6	-6	-463
	+	0	0	0	0	0	0	0	0	0	0	0	0
Total Collected		788	1028	685	1754	460	423	347	249	253	368	241	6596

447 BTD; Black-tailed Deer, WTD; White-tailed Deer, Unk.; Unknown species, -; Negative, o;
 448 Indeterminate, +; Positive.

449 ^a Indeterminate results were usually obtained when the submitted tissue was not suitable for
 450 testing.

451

452 When federal funding ended in 2012, the Department reverted to symptomatic
 453 surveillance only, which greatly reduced the available samples to test. All samples to date were
 454 negative and CWD has not been detected in Washington.

455 During this time of limited surveillance, known cases of CWD were hundreds of miles
456 away from Washington’s borders. However, in April 2019 CWD was detected in Libby,
457 Montana approximately 70mi from Washington’s eastern border (Montana Fish, Wildlife, and
458 Parks 2020). The CWD positive deer in northwest Montana brought attention to a growing
459 concern for cervid managers and warranted renewal of the Department’s actions to mitigate
460 CWD risks and update its CWD management plan.

DRAFT

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620 **Chapter 3: Public Outreach and Communication**

621 Public outreach and communication are essential for successful management of cervid
622 populations and mitigating concerns related to wildlife diseases. Most of the management
623 actions proposed in this plan rely on a well-informed public that understands the vital importance
624 of reducing Washington’s risk of introducing CWD. With understanding comes a willingness to
625 modify behaviors that will mitigate risks associated with disease transmission. Risk minimization
626 and disease prevention are the best tools to combat CWD before it becomes an issue that results
627 in great losses to our wildlife, ecosystems, and economy.

628 Experiences from other states where CWD has been detected indicate it will be
629 imperative that the Department’s stakeholders support and understand the importance of
630 management actions the Department proposes to implement in response to an initial CWD
631 detection should it occur (see Chapter 6). This is especially true if proposed actions involve
632 reductions in deer numbers within the infected area. To garner that support, the Department will
633 need to invest in development and implementation of extensive public outreach efforts that build
634 on those completed during the development and adoption of this Plan. Key Messages listed in
635 Appendix A represent the Department’s initial effort to capture the most important information
636 to communicate to the public during both surveillance and post-detection phases. However, the
637 rigorous human dimensions work outlined below will greatly enhance the Department’s ability to
638 deliver essential, actionable information to the public in a timely manner. The greater intent of
639 this work is to identify specific modes of communication and culturally-appropriate messaging
640 that best speak to the shared values of our many diverse constituents and stakeholders. The
641 ultimate deliverable of these efforts will be an adaptive and responsive communication plan to
642 help provide transparency and foster trust when responsive actions are initiated.

643 **CWD Communication Objectives and Strategies**

644 **Objective:** Proactively build trust with and support from the public and stakeholders regarding
645 CWD management activities during each phase of the Plan

646 **Strategies:**

647 A. Establish a public advisory group within the first year of the Plan being adopted to
648 provide immediate feedback on proposed activities and assist in development and

- 649 implementation of strategies to improve communication with the public and
650 stakeholders.
- 651 B. Implement long-term human dimensions initiative to determine baseline public
652 perceptions and awareness of CWD issues and additional periodic assessments that
653 will inform development and adaptation of culturally appropriate messaging and
654 outreach materials during each phase of the Plan.
- 655 C. During pre-detection phase, implement annual schedule of communication and
656 outreach activities (Table 2) using **Key Pre-detection Messages** (Appendix A)
657 adapted for key constituencies based on the results of human dimensions work to
658 raise general awareness about CWD, its potential effects if it were to become
659 established, and to remind all parties of actions they can take to reduce the risk of
660 CWD becoming established in Washington.
- 661 D. During initial-detection phase, implement annual schedule of communication and
662 outreach activities (Table 3) using **Key Initial-detection Response Messages**
663 (Appendix A) adapted for key constituencies based on the results of human
664 dimensions work to increase awareness of management actions the Department is
665 implementing in response to an initial CWD detection and any subsequent need for
666 citizen assistance.

667 **Target Audiences (beyond general public)**

- 668 • Department: Staff, Commission, citizen advisory, and other volunteer groups
- 669 • Recreational: Hunters, wildlife watchers, hikers, outdoor guides and outfitters, game
670 processors, taxidermists, sportswomen and sportsmen groups, license vendors
- 671 • Tribal Governments
- 672 • WA State Agencies: Departments of Agriculture, Health, Natural Resources, Ecology,
673 Parks & Recreation, Community and Economic Development, and Transportation
- 674 • Elected Officials: Governor, state and federal legislators, county commissioners, city, and
675 local officials
- 676 • Federal Agencies: U.S. Department of Agriculture, Department of Interior, Department
677 of Social and Health Services, and Department of Defense affiliated bureaus

- 678 • Other state and provincial wildlife agencies: Oregon, Idaho, British Columbia, and
- 679 Alberta
- 680 • Livestock producers and industry organizations
- 681 • Environmental and conservation organizations
- 682 • Washington State Veterinary Medical Association
- 683 • Universities
- 684 • Zoos and wildlife preserves
- 685 • Local residents

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686 **Pre-detection Communication Schedule:**

687 Table 2. Timing of CWD-related pre-detection public outreach information and staff responsible
 688 for developing content.

Responsible staff	Communication method	Timing
Public Affairs & CWD Team ^a	News releases	Aug/Sept/Oct (to remind hunters of current transport regulations)
	Public meeting(s)	When the CWD Plan is adopted and as new information is available
	Department CWD webpage updates	As new information is available
	Social media (Facebook, Twitter, YouTube, Instagram, WDFW blog)	Regularly
	Select news media contacts	When testing provides photo opportunities for feature stories
Game & Licensing	Outreach to hunters	At outset of hunting seasons, with meeting opportunities, winter/early spring shows
	<ul style="list-style-type: none"> • Direct e-mail to licensed big game hunters • Presentations at hunting organization meetings • Displayed info at sportsmen show booths • Display signage on I-90 to remind out-of-state hunters about carcass import restrictions 	
	Information added to Hunter Education Program curriculum	

689 ^a The CWD team will be Department staff in the Science and Game Divisions that work on
 690 cervid species

691 **Initial-detection Communication Schedule:**

692 Table 3. Timing of post-detection CWD-related public outreach information and staff
 693 responsible for developing content.

Responsible staff	Communication method	Timing
Public Affairs & CWD-ICT	Notification of CWD detection (internal and external phone trees set up in advance by Wildlife Program to alert other state, federal and Tribal natural resource management agencies, governor and elected officials, WA Dept. of Ag, livestock producer associations, and nearby livestock producers	ASAP (within 24 hours) when CWD detection is made
	Develop key talking points for consistent staff response	ASAP when CWD detection is made
	News release	ASAP when CWD detection is made
	Key talking points (based on news release and FAQ update) for all staff	ASAP when CWD detection is made
	Public meeting(s)	Prior to planning and implementation of on-the-ground response efforts
	News media responses, provision of photos if available, personal interviews	As inquiries fielded
Wildlife Health & Public Affairs	WDFW website CWD webpage updates, especially FAQs for link to news release	ASAP when CWD detection is made
	WDFW website Roadkill Salvage Permit webpage updates, such as adding carcass transport restrictions and sample collection needs	ASAP when CWD detection is made
	Outreach to agricultural community through Washington Farm Bureau, Cattlemen’s Association, other producer groups’ communication systems (e-mail, blogs, newsletters, specialty media, etc.)	When changes to hunting rules and regulations, and landowner permits are warranted
Public Affairs social media team, keying off news releases and webpage updates	Social media posts (Facebook, Twitter, YouTube, Instagram, WDFW blog, etc.)	ASAP when CWD detection is made
Game & Licensing	E-mail to licensed big game hunters with key points including proper disposal of carcasses, and especially with changes to hunting regulations and procedural details	ASAP when CWD detection is made and when changes to hunting rules and regulations are warranted
Game	E-mail to citizen advisory groups (Game Management, Hunter Education Instructors, Master Hunters, Wildlife Diversity) with key points	When changes to hunting rules and regulations are warranted

694

695 **Chapter 4: Risk Assessment and Minimization**

696 Once a disease enters a wildlife population, it becomes exceedingly expensive and difficult to
697 control. There are very few instances of any disease being eradicated, or even successfully
698 managed, after it became established in a wild population (see Background, Eradication for
699 example). There are no vaccines or treatments for CWD. Prevention is the most practical and
700 effective tool available to avoid the establishment of CWD in Washington.

701 The following is a qualitative assessment of known risk factors for the introduction and
702 establishment of CWD into new areas. Relevant regulations and practices that currently exist in
703 Washington are discussed, as well as recommendations for changes to those regulations and
704 practices to minimize the risk of CWD becoming established in Washington. Recommendations
705 are based on the AFWA Technical Report on Best Management Practices for the Prevention,
706 Surveillance, and Management of Chronic Wasting Disease (Gillin and Mawdsley 2018).

707 **Live Cervid Movement**

708 *Overview and assessment.*— Movement of infected live cervids is considered to be the
709 greatest risk factor for the introduction and establishment of CWD into new geographical areas
710 (Williams et al. 2002, Joly et al. 2003, Travis and Miller 2003). This can occur via human-
711 mediated transport, particularly in the commercial captive cervid industry (Sohn et al. 2002,
712 Argue et al. 2007) and via natural movements of wild free-ranging infected cervids as the disease
713 expands within a localized area (Miller et al. 2000, Conner and Miller 2004). In Washington,
714 risks associated with the transport of live cervids include importation of captive cervids into
715 Washington, transport of captive cervids within the state, relocation of native wild cervids for
716 management purposes, and transport of wild cervids (particularly fawns) for rehabilitation
717 purposes.

718 *Captive Cervids.*—

719 Due to the animal movement inherent within the captive cervid industry, this practice and
720 associated facilities pose significant disease risks to sympatric (i.e., overlapping) free-ranging
721 cervid populations. Chronic wasting disease may be directly transmitted from animal to animal
722 via fence-line contact between captive and free-ranging cervids (Vercauteren et al. 2007), and
723 from captive cervid escapees co-mingling with wild cervids. Captive facilities may also become
724 contaminated with CWD prions, providing a persistent source of indirect CWD transmission to

725 cervids that subsequently use the same area (Miller et al. 2006). Where captive cervid facilities
726 are allowed, it is critical that CWD captive cervid monitoring programs are in place to quickly
727 detect and respond to new cases before the disease becomes established and spreads. Because
728 CWD can be passed between captive and wild cervid populations, both wild and captive cervids
729 must be considered in a CWD management plan.

730 The importation, possession, propagation, and trade of cervids is regulated by the
731 Department. Cervids native to Washington are regulated under Washington Administrative Code
732 (WAC) 220-450-030 (Live Wildlife), and certain species of non-native cervids are regulated
733 under WAC 220-640-200 (Deleterious Exotic Wildlife). Both WACs provide exceptions for
734 authorized research institutions or Association of Zoos and Aquariums (AZA) - accredited
735 facilities.

736 With exceptions for research institutions and AZA facilities, the importation, possession,
737 propagation, and trade of the following cervid species are prohibited in Washington: cervid
738 species native to Washington, European red deer, all nonnative subspecies of *Cervus elaphus*,
739 and all hybrids with North American elk; fallow deer (*Dama dama*), axis deer (*Axis axis*), rusa
740 deer or sambar deer (*Cervus unicolor*, *Cervus timorensis*, *Cervus mariannus* and *Cervus alfredi*),
741 sika deer (*Cervus Nippon*), reindeer (all members of the genus *Rangifer* except *Rangifer*
742 *tarandus caribou*), and roedeer (all members of the genus *Capreolus*). Although listed as
743 prohibited under WAC 220-640-200, this WAC does provide exceptions for the importation,
744 possession, propagation, and trade of reindeer and fallow deer under certain conditions.

745 The Washington State Department of Agriculture (WSDA) regulates disease testing and
746 other entry requirements for the importation of authorized cervids under WAC 16-54-180 (Wild
747 and Exotic animals - Importation and Testing Requirements). WAC 16-54-180 does not
748 currently prohibit the importation of live cervids originating in states or provinces where CWD is
749 present in captive or wild populations, nor are there cervid importation restrictions based on
750 CWD testing or enrollment of the originating herd in a state or federal CWD herd certification
751 program. Both shortcomings increase the risk of CWD entering Washington with imported
752 cervids.

753 According to WSDA records (as of October 2020), 44 cervids have been legally imported
754 into Washington since 2009. Some of these cervid importations have been between AZA -

755 accredited facilities. In 1 instance, a muntjac deer was imported as a pet in 2018. The majority of
756 cervid importations have been privately-owned, domesticated reindeer.

757 Every few years, the Department’s Enforcement Program conducts a statewide inventory
758 of properties known to house non-native captive cervids. As of the last inventory in 2016, there
759 were 30 known premises in the state with non-native captive cervids on-site. In addition to the 30
760 premises known to the Department, WSDA is aware of an additional 4 premises that house
761 reindeer (A. Itle, pers. comm.). Captive native cervid species are currently held at AZA-
762 accredited facilities in western Washington, Washington State University research programs in
763 Pullman, and the Olympic Game Farm in Sequim.

764 Both WAC 220-450-030 and 220-640-200 include several requirements that are
765 recognized as essential to effective disease tracking and management in captive animals,
766 including: adequate fencing, official individual animal identification, annual animal inventory,
767 regular reporting, and specified disease testing. Inspections of these facilities by Department staff
768 are required to ensure that these requirements are being met. However, some uncertainty exists
769 as to Department legal authority to conduct such inspections, and currently there are no
770 dedicated staff assigned to do them. Both WACs include testing provisions for certain diseases
771 and parasites, but CWD is not among them. The current absence of regular inspections and of a
772 CWD monitoring program for captive cervid facilities in Washington precludes the opportunity
773 for early detection and response to CWD should it occur in a captive cervid facility in the state.

774 *Native Free-Ranging Cervids.*—The Department has historically moved native deer and
775 elk within the state for herd augmentation and other management purposes, and in the 1990s,
776 imported woodland caribou from Canada in an effort to recover this native endangered species in
777 Washington. Similarly, the Department continues to work with the USFWS, local Tribes, and the
778 Oregon Department of Fish and Wildlife to recover threatened Columbian white-tailed deer
779 within their range in southwestern Washington, including occasional translocations from
780 adjacent range in Oregon into Washington. Due to geographically and numerically limited
781 translocations of Columbian white-tailed deer, this practice is not considered to present a
782 significant CWD risk at this time. Further, the Department is currently working with Columbian
783 white-tailed deer co-managers to develop a CWD plan specific to the species.

784 Moose that wander into Spokane and other urban areas and become a nuisance or public
785 safety threat are routinely captured and relocated throughout eastern Washington. Deer and elk
786 are similarly captured and relocated, although not as frequently as moose. Senate Bill 5474,
787 passed during the 2017 Washington legislative session, prohibits the translocation of live elk
788 from an area affected by hoof disease to any other location. Substitute House Bill 2276, passed
789 during the 2018 Washington legislative session, requires the Department to provide notice and
790 hold a public hearing prior to relocating or importing game animals for population enhancement.
791 There will likely remain an occasional need to relocate individual cervids from urban and
792 suburban areas to more suitable habitat within a given region. This practice is believed to present
793 a negligible CWD risk at the present time but will be re-evaluated should CWD be detected in
794 Washington.

795 Licensed wildlife rehabilitators are prohibited by the Department from importing cervids
796 from outside Washington, although they have historically been permitted to accept deer fawns
797 and elk calves from throughout the state, rehabilitate them, and release them in areas independent
798 of where they originated. Rules enacted in 2018 prohibit this latter practice, and rehabilitated
799 fawns and calves now must be admitted and released only within the Department administrative
800 region where they originated (WAC 220-450-150). Current wildlife rehabilitation regulations
801 and practices are not believed to present a significant CWD risk at the present time but will be
802 re-evaluated should CWD be detected in Washington.

803 *Risk Minimization Recommendations.*— To minimize the risk of CWD introduction and
804 establishment in Washington via the movement of live cervids, the Department recommends
805 updates to WACs 16-54-180 (Wild and Exotic animals - Importation and Testing Requirements),
806 220-450-030 (Live Wildlife), and 220-640-200 (Deleterious Exotic Wildlife).

807 According to AFWA, the best management practice to eliminate the risk of
808 anthropogenic introduction and establishment of CWD through the movement of live cervids is
809 to prohibit their importation into Washington, and this is the Department's preferred approach.
810 However, if complete prohibition of live cervid importation is deemed to be infeasible or
811 undesirable the Department recommends working with WSDA to update WAC 16-54-180 to
812 prohibit the importation of live cervids that originate in states or provinces where CWD is
813 present in captive or wild populations, and to require that any cervid entering Washington be

814 from a herd that is enrolled in a WSDA and Department-approved state or federal CWD herd
815 certification program such as the [USDA Chronic Wasting Disease Herd Certification Program](#).

816 Several changes are needed to improve the effectiveness of WAC 220-450-030 and 220-
817 640-200 at preventing the entry and establishment of CWD in Washington. In order to minimize
818 the number of non-native captive cervids entering the state, and in keeping with AFWA
819 recommendations, the Department recommends that the possession, propagation, and trade of all
820 non-native cervid species be prohibited in Washington, not just the 10 species currently listed. If
821 complete prohibition is deemed to be infeasible or undesirable, the Department must obtain legal
822 clarification of its authority to conduct inspections of existing facilities and, if needed,
823 recommend the necessary rule changes or seek the necessary authority to conduct such
824 inspections. Further, dedicated staff should be assigned to conduct annual inspections and ensure
825 that these regulations are being followed. Finally, the Department recommends that a
826 requirement for a CWD monitoring program for captive cervid facilities be added to these
827 WACs.

828 **Cervid Carcass Importation and Disposal**

829 *Overview and Assessment.*—Chronic wasting disease prions accumulate in the tissues of
830 infected cervids, even before the animal begins to show signs of disease (Sigurdson et al. 1999).
831 These prions persist in the animal's tissues after death and will contaminate the environment as
832 the carcass decomposes. Studies have demonstrated that infectious CWD prions from infected
833 decomposed deer carcasses can persist in the environment for nearly 2 years, presenting an
834 exposure hazard to other cervids in the area (Miller et al. 2004). Prions that cause scrapie in
835 domestic sheep, a disease very similar to CWD, may persist in the environment for up to 16
836 years (Georgsson et al. 2006).

837 Due to the risk of importing CWD into Washington via infected carcasses or carcass
838 parts, the Department updated WAC 220-413-030 (Importation and Retention of Dead
839 Nonresident Wildlife) in the early 2000s to prohibit the importation of intact carcasses and
840 certain carcass parts of cervids harvested in states and provinces where CWD is known to occur.
841 This WAC also requires hunters to notify the Department within 24 hours if they are informed
842 that a deer or elk they harvested in another state or province subsequently tested positive for
843 CWD.

844 Over the past 2 decades, there have been very few years that CWD was not diagnosed for
845 the first time in at least 1 new state or province. Accordingly, it has been necessary for the
846 Department to update its carcass importation rules to add newly positive states and provinces
847 nearly annually. Further, it is increasingly recognized that CWD is likely to be present in a state
848 or province for months to years before it is first detected. Given this information, there is a clear
849 risk that cervid carcasses or parts could be legally imported into Washington from a CWD-
850 positive state or province before that state or province reports its first CWD case and it is added
851 to WAC 220-413-030.

852 Despite efforts to inform hunters traveling out of state about WAC 220-413-030, nearly
853 every year the Department documents cases where cervid carcasses, carcass parts, or meat from
854 CWD-positive animals are brought into Washington from states or provinces with CWD
855 documented in wild cervids. In many cases, the hunter was unaware that importation of the
856 carcass or parts was illegal. To date, the Department has addressed these situations on a case-by-
857 case basis, usually involving confiscation of the prohibited or unwanted carcass parts or meat
858 and proper disposal by Department staff. During the fall of 2019, Department staff drafted
859 standard operating procedures (SOP) for dealing with such cases. Currently, the Department
860 disposes of potentially infected intact carcasses and large carcass parts (i.e., skulls) in
861 Department-approved landfills, and boneless meat via cremation.

862 *Risk Minimization Recommendation.*—To minimize the risk of CWD introduction and
863 establishment in Washington via imported carcasses or parts and their improper disposal, the
864 Department recommends updates to WAC 220-413-030 (Importation and Retention of Dead
865 Nonresident Wildlife). In addition, the Department should conduct additional outreach to
866 hunters, game meat processors, and taxidermists and finalize an SOP for managing disposal of
867 high-risk confiscated or surrendered materials.

868 According to AFWA, the best management practice for reducing the risk of CWD
869 transmission and establishment via movement of hunter-harvested cervid carcasses and tissues is
870 to prohibit the importation of intact cervid carcasses from all states and provinces. Therefore, the
871 Department recommends updating WAC 220-413-030 to apply to all cervid species and to
872 prohibit the importation of carcasses or carcass parts, with exceptions currently listed, from any

873 state, province, or territory, regardless of CWD status of wild or captive cervids in those states,
874 provinces, or territories.

875 To address the problem of illegal cervid carcass and tissue importation, the Department
876 should conduct more intensive outreach to Washington residents who hunt out of state in order to
877 increase their awareness of the carcass importation regulations in WAC 220-413-030 (see Public
878 Outreach and Communication section of this Plan). Similarly, the Department should contact all
879 game meat processors and licensed taxidermists to provide educational material on CWD
880 transmission and the risks associated with improper disposal of potentially infected carcasses and
881 tissues, and request that all cervid remains be disposed of in a Department-approved landfill and
882 not on the landscape.

883 To ensure a consistent response and proper disposal of high-risk tissues, the Department
884 should finalize its SOP for disposing of seized or surrendered carcasses, carcass parts, or meat
885 and create a list of certified disposal facilities for staff reference.

886 **Artificial Feeding and Baiting**

887 *Overview and Assessment.*—Baiting and recreational or supplemental feeding of any
888 wildlife species has the potential to artificially concentrate animals (Janousek et al. 2021) and
889 increase the transmission of infectious disease agents among them (Sorenson et al. 2014).
890 Attraction of animals to artificial feed can also result in contamination of the feedstuffs and the
891 environment by disease agents, such as prions, that are present in saliva, urine, and feces of
892 CWD-infected cervids (Mathiason et al. 2009, Henderson et al. 2015, Plummer et al. 2017). For
893 example, it has been demonstrated that white-tailed deer with CWD deposit prions at mineral
894 licks, creating environmental reservoirs of CWD prions (Plummer et al. 2018).

895 There are currently no prohibitions against recreational feeding of cervids in Washington,
896 and the practice is common throughout the state. Current regulations allow baiting for the
897 purposes of hunting deer and elk under certain conditions (WAC 220-414-030). Department-
898 sponsored feeding occurs on a very limited basis and is largely restricted to an historic winter
899 feeding program in southcentral Washington implemented to reduce chronic localized conflict
900 between elk and neighboring agricultural operations.

901 *Risk Minimization Recommendations.*—According to AFWA, the best management
902 practice to reduce the risk of CWD transmission and establishment through unnatural

903 concentrations of cervids, is for states and provinces to eliminate the baiting and feeding of all
904 wild cervids using regulatory mechanisms, such as jurisdictional bans. Therefore, the
905 Department recommends seeking authority or rule changes to prohibit the feeding of wild
906 cervids, including eliminating the exceptions to baiting for the purposes of hunting deer and elk
907 that currently exist in WAC 220-414-030. A public information campaign on the disease risks
908 associated with feeding cervids will be initiated as soon as feasibly possible (see Public Outreach
909 and Communication section of this Plan).

910 The Department currently feeds elk in southcentral Washington to prevent agricultural
911 damage in the winter. This practice results in unnaturally high concentrations of animals and
912 may increase disease transmission risk. Considering the substantial threat associated with CWD,
913 this program needs to be re-evaluated to determine the costs and benefits of feeding elk while
914 mitigating both disease and agricultural damage. This will require effort to collect both biologic
915 and economic data to develop a bioeconomic model to evaluate the impacts of management with
916 and without feeding (Maloney et al. 2020). Furthermore, assessment and mitigation of the
917 potential disease risk posed by feeding will require engagement by stakeholders from many
918 sectors of Washington’s economy. With the adoption of the Plan, the Department will prioritize
919 research to investigate the impacts of feeding and disease transmission and will test any
920 symptomatic cervids observed in the vicinity of established winter feeding areas.

921 **Urine-based Scents and Attractants**

922 *Overview and Assessment.*—CWD prions are shed in the urine of infected deer for
923 months to years before they show signs of disease, and an infected deer may shed thousands of
924 infectious doses during its lifetime (Henderson et al. 2015). There are currently no practical tests
925 to detect the presence of CWD prions in urine. Hunters use commercial urine-based products to
926 mask human scent and to attract deer, particularly males, within shooting range. These products
927 are readily available for purchase at sporting goods stores and online. The urine used in these
928 products is collected from deer in captive facilities, typically using a grate system that also
929 collects feces and other excretions (Spitznagel 2012) and is frequently batched/combined from
930 multiple captive cervid facilities (Nark 2017).

931 Deer urine production and sales are not regulated by any agency, nor are there any testing
932 or labeling requirements for urine products. The Archery Trade Association (ATA) offers a

933 voluntary certification program for deer urine businesses which is designed to mitigate the risk of
934 spreading CWD via commercial deer urine products. However, there are shortcomings with the
935 ATA certification program (Gillin and Mawdsley, 2018), and the organization has no technical
936 ability or regulatory authority to detect or prevent the distribution of contaminated urine
937 products.

938 Bans or restrictions on the use of urine-based scents and attractants for hunting cervids
939 exist in 12 states and 4 Canadian provinces, and are being considered in another 5 states. The
940 use of urine-based scents and attractants is currently allowed in Washington under WAC 220-
941 414-030. The extent to which these products are used in Washington is unknown, but they could
942 serve as a source of CWD introduction into the state.

943 *Risk Minimization Recommendations.*—According to AFWA, the best management
944 practice for reducing the risk of CWD transmission and establishment through use of natural
945 cervid urine-based products is to “eliminate the sale and use of natural cervid urine-based
946 products.” Therefore, the Department recommends that WAC 220-414-030 be updated to
947 prohibit the use or possession of urine-based scents and lures for deer and elk hunting.

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1022 **Chapter 5: Pre-Detection Surveillance**

1023 Early detection of CWD in Washington is critical, should it occur, as successful management of
1024 the disease is more likely when prevalence is low and environmental contamination by prions is
1025 minimal (Gross and Miller 2001). There has only been one instance where CWD is believed to
1026 have been successfully eradicated from wild cervids. This was in New York, where a pre-
1027 detection surveillance program that tested thousands of animals, and a prompt and aggressive
1028 response once the first case was detected, were credited with preventing CWD from becoming
1029 established in the wild white-tailed deer population (Evans et al. 2014).

1030 The Department currently tests adult cervids throughout the state that are reported with
1031 clinical signs commonly associated with CWD, and under this Plan will continue to do so.
1032 Targeted surveillance of symptomatic animals is helpful, but alone is unlikely to detect CWD
1033 early enough for effective management intervention (Miller et al. 2000). Similarly, testing of
1034 healthy hunter-harvested or vehicle-killed cervids alone is not likely to result in early detection
1035 of CWD in Washington (Williams et al. 2002).

1036 Sampling of both symptomatic and apparently healthy hunter-harvested or vehicle-killed
1037 cervids will be conducted as part of the Department's pre-detection surveillance program.
1038 However, the majority of the Department's pre-detection surveillance samples will be obtained
1039 through systematic collection of samples based on known CWD geographical and demographic
1040 risk factors, as described below.

1041 **Geographical Risk Factors**

1042 While it would be ideal to conduct systematic pre-detection CWD surveillance statewide,
1043 financial and logistical constraints make such an approach infeasible, at least initially.
1044 Prioritization of areas to sample is necessary and the majority of sampling will be based on
1045 known geographical and demographic risk factors for detecting CWD positive animals.

1046 The Department will initially focus geographical sampling for surveillance along
1047 Washington's eastern border, where natural westward expansion of CWD by movements of free-
1048 ranging cervids would be most likely to occur (currently the closest known CWD detection is in
1049 northwest Montana), and where proximity to several captive cervid facilities in northern Idaho
1050 present an increased CWD transmission risk to native wild cervids relative to other parts of the

1051 state. A total of nine CWD Surveillance Units (CSUs) based on Game Management Units
 1052 (GMUs) are delineated for white-tailed deer (five units) and mule deer (four units) populations
 1053 believed to be at the greatest risk of exposure to CWD (Figure 1).

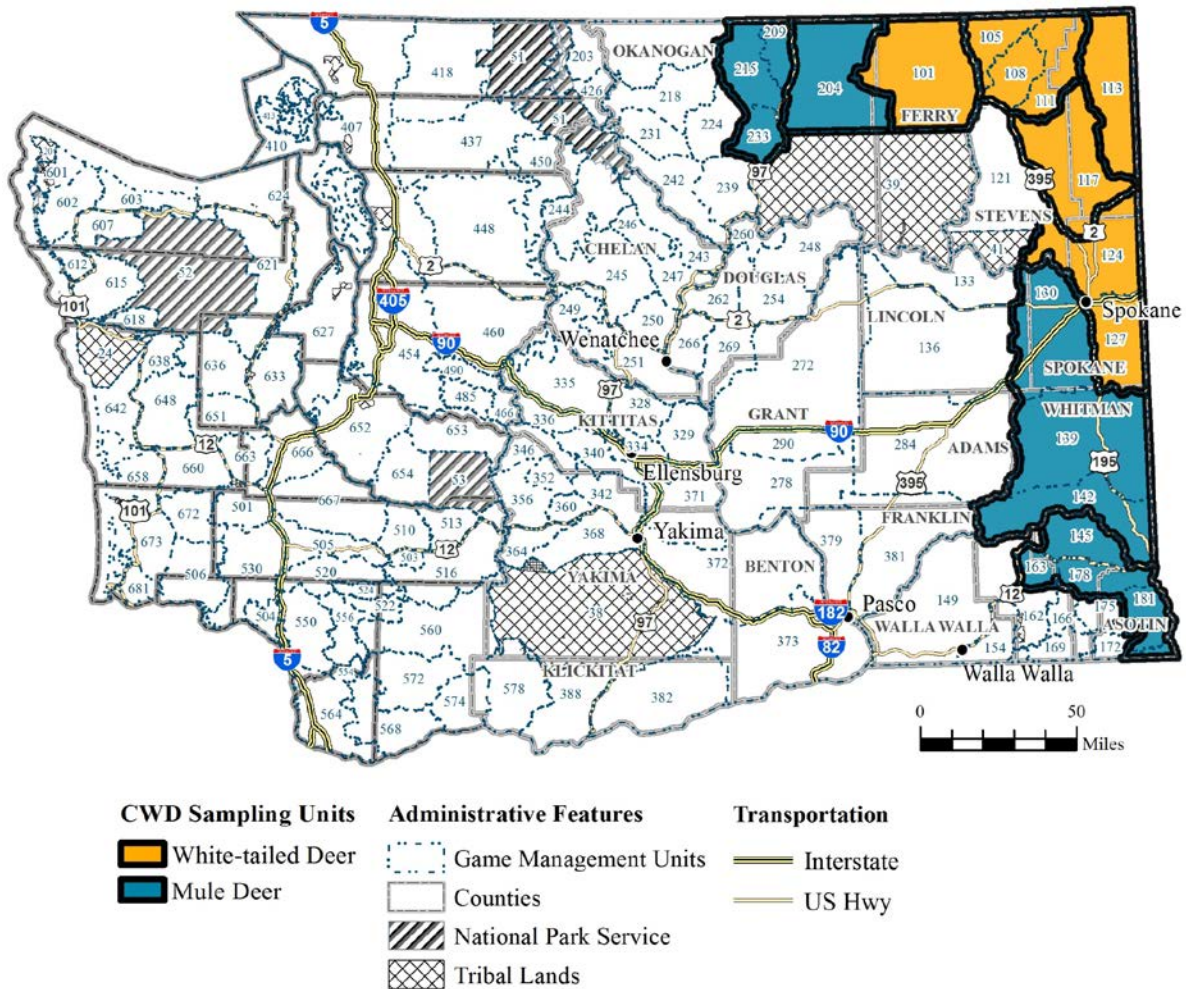


Figure 1. CWD surveillance units delineated based on Game Management Units that represent populations of mule and white-tailed deer in Washington State at greatest risk of contracting CWD.

1054 Evidence to date suggests that CWD epidemics in white-tailed deer and mule deer are
 1055 different and that in areas where these species coexist, CWD prevalence is greater in mule deer
 1056 populations relative to sympatric white-tailed deer. This has been observed in both Wyoming
 1057 (Edmunds et al. 2016, DeVivo et al. 2017) and Colorado (Miller and Connor 2005, summarized
 1058 by Rivera et al. 2019). To account for documented differences between white-tailed deer and
 1059 mule deer with respect to CWD epidemiology, sampling and analysis of surveillance results will
 1060 be addressed separately for these two species. While CSU's are delineated based on the

1061 predominant deer species (white-tailed or mule deer) in the area, either species will be
1062 opportunistically sampled, even if not the focus species for that particular CSU. Results,
1063 however, will be analyzed separately by species.

1064 Because the prevalence of CWD is substantially lower in elk than in deer (Spraker et al.
1065 1997, Miller et al. 2000) and is relatively rare in moose (Kreeger et al. 2006, Ricci et al. 2017),
1066 systematic sampling of these species is not likely to be as productive as sampling deer.
1067 Nonetheless, elk and moose will be sampled opportunistically, and results will be analyzed
1068 separately by species.

1069 *White-tailed Deer.*—Northeastern Washington is home to Washington’s most abundant
1070 white-tailed deer populations. The nearest known CWD detection - Libby, Montana - is
1071 approximately 70mi from Washington’s border, with the area in between consisting of
1072 continuous suitable white-tailed deer habitat. This suggests that the most likely route for animal-
1073 mediated introduction of CWD to Washington would occur via natural animal-to-animal contact
1074 and disease diffusion from western Montana into eastern Washington. Chronic wasting disease
1075 surveillance units for white-tailed deer were established to provide geographic coverage of deer
1076 populations based on Department GMUs that restrict CSUs to $\leq 15,000$ deer (Figure 1).

1077 *Mule Deer.*—Mule deer are believed to be more susceptible to CWD than white-tailed
1078 deer (Spraker et al. 1997, Miller et al. 2000), and disease transmission may be elevated in herds
1079 that concentrate on winter range (Conner and Miller 2004). Further, the migratory behavior of
1080 some mule deer populations could facilitate the westward spread to central Washington should
1081 CWD enter eastern Washington. Chronic wasting disease surveillance units for mule deer were
1082 established to provide geographic coverage of deer populations based on Department GMUs that
1083 restrict CSUs to $\leq 15,000$ deer based on known population distribution (Figure 1).

1084 In addition to CSU-based sampling in eastern Washington, the Department will also
1085 opportunistically collect samples from taxidermists and game meat processors from throughout
1086 the state to potentially catch any samples that were harvested in a CSU and processed elsewhere
1087 in the state. Further, while not as rigorous an approach as CSU-based sampling in eastern
1088 Washington, collection of samples from game meat processors and taxidermists statewide may
1089 provide samples from animals collected in areas with additional, but difficult to quantify, risk
1090 factors such as proximity to captive cervid facilities, cervid carcass dump sites, artificially-high

1091 concentrations of cervids, and areas where CWD-contaminated urine lures may have been used
1092 for hunting. Moreover, hunters from across the state harvest animals in other states and provinces
1093 known to have CWD, and potentially bring back infected carcasses without properly transporting
1094 or disposing carcass remains. Results from this sampling will be analyzed separately from the
1095 CSU-based sampling described previously.

1096 **Demographic Risk Factors**

1097 Adult cervids showing clinical signs consistent with CWD are far more likely to test positive for
1098 CWD than are apparently healthy animals (Miller et al. 2000). As a result, sampling of
1099 symptomatic cervids will remain a high priority of the Department's pre-detection surveillance
1100 plan regardless of species or location in the state.

1101 Research from CWD-endemic states has found that adult animals are more likely to test
1102 positive than yearling or young of the year age classes (older animals have had more time to
1103 become infected and for that infection to progress). This pattern is generally consistent for both
1104 mule deer and white-tailed deer (Miller and Conner 2005, Gear et al. 2006, Montana Fish,
1105 Wildlife and Parks 2020). In some GMUs, yearlings make up the majority of harvested deer.
1106 Given this information, for pre-detection surveillance, the Department will only sample animals
1107 18 months of age or older.

1108 Although male cervids are more likely to test positive for CWD than females in most
1109 studied systems, given constraints related to animals available for testing and influences such as
1110 harvest structure within a given surveillance unit, there will be no discrimination between males
1111 and females for sampling. However, the majority of deer harvest in Washington is targeted
1112 towards males and the structure in place will most likely result in males being overrepresented in
1113 samples. The Department will also make efforts to collect as many samples as possible from
1114 cervids presented to taxidermists, which will increase the adult male segment of the total sample.

1115 While most samples will likely be collected from hunter-harvested adult animals, the
1116 Department will also collect samples from animals killed by vehicles by accessing Washington
1117 State Department of Transportation carcass disposal sites. In addition, the Department will also
1118 take advantage of any research being conducted that might provide additional samples from
1119 cervids associated with those efforts, including cervids killed by predators.

1120 **Sample Size Calculations and Data Analysis**

1121 Following the methods of Cannon and Roe (1982) the goal of our pre-detection surveillance will
1122 be to collect testable samples from 300 cervids within each identified CSU, which will allow us
1123 to conclude with 95% confidence that we would detect CWD if it is present in as little as 1% of
1124 the population. Should sample size goals not be met for a given CWD surveillance unit, the
1125 methods of Cannon and Roe (1982) and Cameron and Baldock (1998) will be used to calculate
1126 both: 1) the confidence level of detecting disease if present in 1% or less of the population in that
1127 unit, given the sample size obtained, and 2) the proportion of deer in a CSU that could be
1128 infected before we detected the first case, given the sample size obtained. For example, if 150
1129 samples are obtained in a given CSU, we would be able to conclude with only 78% confidence
1130 that we would have detected CWD if it was present in $\leq 1\%$ of the deer population in that unit.
1131 Using the same calculation methods, if 150 samples were obtained within a CSU, the disease
1132 could be present in up to 2% of the population before we detected our first case rather than our
1133 goal of 1%. Assuming a population size of 15,000 deer in a CSU, this would mean that 300
1134 positive deer could be present in the population, rather than 150, before our sampling detected
1135 the first positive. The latter two calculations will inform prioritization and decision-making for
1136 CWD sampling in the identified CSUs in order to improve the odds of achieving stated sampling
1137 goals.

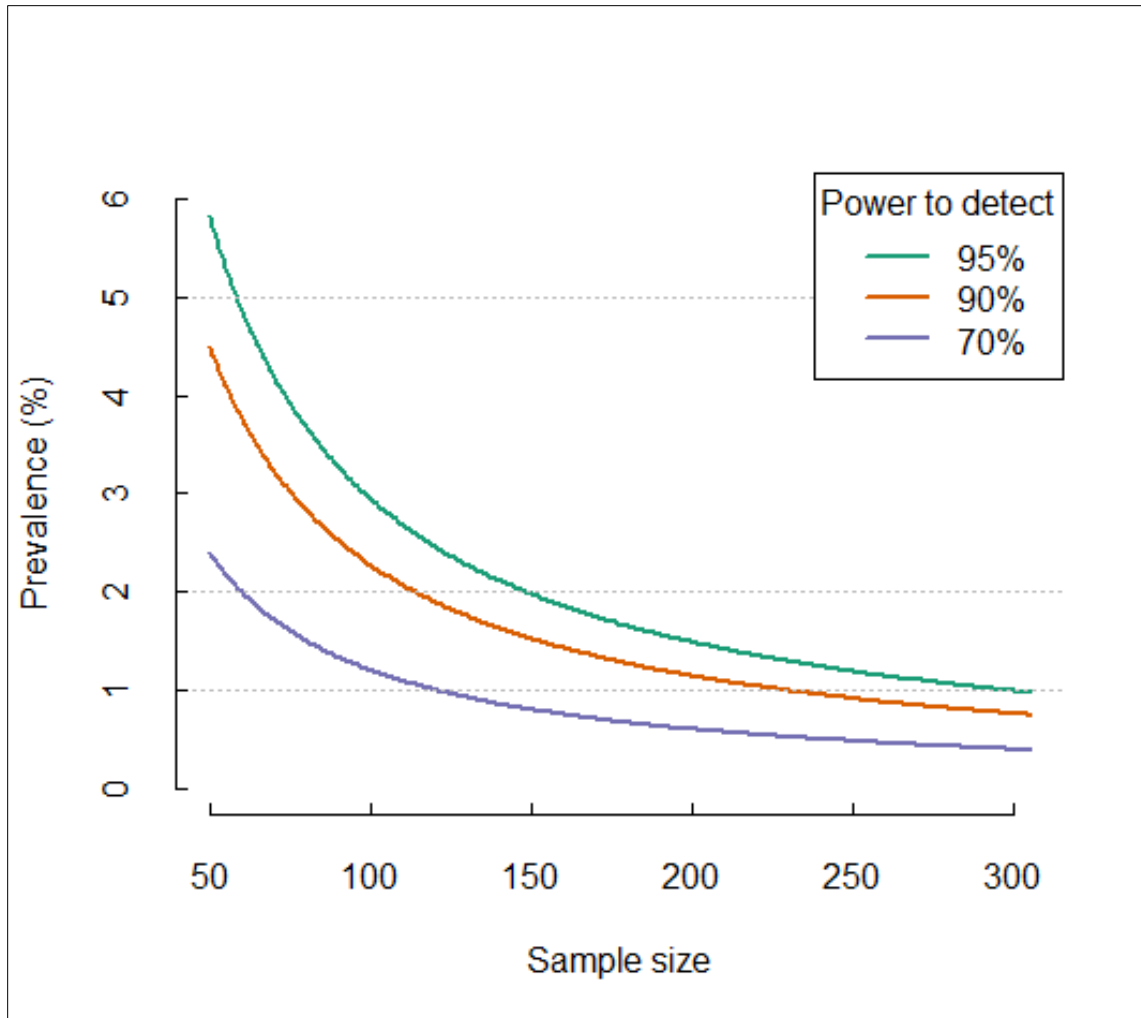


Figure 2. Relationship of prevalence and sample size with varying power of detection.

1138 Surveillance efficiency may be enhanced by using a weighted (i.e., risk-based) sampling
 1139 scheme that would target individuals most likely to test positive for CWD based on species, age,
 1140 sex, and cause of death (Walsh and Miller 2010). Currently, no risk data is available specific to
 1141 CWD epidemics in Washington; however, weighted values are available for mule deer and elk
 1142 from Colorado (Walsh and Miller 2010) and white-tailed deer in Wisconsin (Jennelle et al.
 1143 2018). A weighted surveillance strategy may be pursued using data from other states when and
 1144 where feasible.

1145 **Sources of Samples for Pre-detection Surveillance**

1146 *Symptomatic Cervids*

- 1147 • Inform staff and public about clinical signs of CWD and importance of sampling
- 1148 symptomatic cervids
- 1149 • Provide and promote process for reporting and sampling symptomatic cervids
- 1150 • Allocate staff time to respond to, collect, and ship samples from symptomatic animals
- 1151 statewide

1152 *Hunter-Harvested Animals*

- 1153 • Collaborate with Tribes to sample tribal harvest
- 1154 • Collaborate with state and federal land managers to facilitate collection of samples from
- 1155 relevant major public lands.
- 1156 • Check Stations
 - 1157 ○ Existing Deer Park check station
 - 1158 ○ Existing Elk-Chattaroy check station
 - 1159 ○ Existing Lincoln County Enforcement check station
 - 1160 ○ Re-establish Asotin Check Station
 - 1161 ○ Establish new check stations, particularly in the Selkirk WDMZ
- 1162 • Game Meat Processors and Taxidermists
 - 1163 ○ Contact all game meat processors and taxidermists throughout Washington and
 - 1164 arrange for them to retain cervid heads for collection and testing
 - 1165 ○ Consider paying an incentive for each head retained for sampling
- 1166 • Hunting and Wildlife Conservation Groups
 - 1167 ○ Engage with local hunting and wildlife conservation groups to assist with
 - 1168 outreach and sample submission from members
- 1169 • Damage or Special Hunts
 - 1170 ○ Consider requiring Master Hunters and holders of damage or special hunt permits
 - 1171 to retain heads for CWD sampling
- 1172 • Collection Sites
 - 1173 ○ Place barrels at collection sites for hunters to deposit deer heads

- 1174 ○ Train Department staff at Regional and District offices to collect samples from
1175 cervid heads dropped off by public

1176 *Vehicle-killed Cervids*

- 1177 • Washington State Department of Transportation (WSDOT) carcass disposal pits
- 1178 ○ Work with WSDOT to identify carcass disposal pit locations and gain access for
1179 CWD sampling
- 1180 ○ Provide staff time to visit pits and collect samples
- 1181 • Convenience Vehicle-killed Samples
- 1182 ○ Inform Department staff, other agencies, volunteers, and the public of the
1183 Department’s interest in collecting samples from vehicle-killed deer and request
1184 that they report locations of vehicle-killed cervids to WDFW Regional Offices.
- 1185 ○ Consider implementing an online or toll-free reporting tool for the public to report
1186 locations of vehicle-killed cervids
- 1187 • Salvage Tag Holders
- 1188 ○ Request holders of salvage tags to retain heads for CWD sampling

1189 *Research-related samples*

- 1190 • Advise Department staff and external researchers of the Department’s desire to collect
1191 samples from any cervid mortalities associated with research efforts by either direct
1192 (radio-collared cervids) or indirect (carcasses discovered during investigation of potential
1193 carnivore kill sites) means

1194 **Sample and Data Management**

1195 Retropharyngeal lymph nodes (RPLN) will be collected from deer. From elk and moose, the
1196 brainstem is the preferred sample for CWD testing and, if possible, will be collected instead of
1197 the RPLN. Samples will be placed in a cryovial labeled with the following information: date,
1198 species, sex, location (GMU, coordinates), hunter identification (if applicable), sample type
1199 (RPLN, brainstem), sample collector, and source (symptomatic animal, hunter-harvest, vehicle-
1200 killed, other). Cryovials will also be labeled with a unique barcode to facilitate data entry and
1201 transmittal to WADDL. Samples will be frozen until submitted to the laboratory where they will
1202 be tested using an enzyme-linked immunosorbent assay (ELISA). Confirmation of any positive
1203 ELISA results will be done using immunohistochemistry.

1204 Department data management staff will develop a process for data collection in the field,
 1205 as well as a database for storage and retrieval of CWD surveillance field data and test results. A
 1206 web application will be developed and made available on the Department website for hunters to
 1207 look up test results of their harvested animals.

1208 **Training**

1209 Designated Department staff will conduct training for additional Department field staff (and
 1210 potentially taxidermists, university students, Tribal co-managers, and volunteers) on CWD
 1211 sample collection, data entry, labeling, storage, and shipping.

1212 **Budget**

1213 Table 4. Estimated Annual Budget for Pre-detection Surveillance (Note: final values are subject
 1214 to change).

Staff Salary & Benefits	Surveillance design and data analysis; develop and maintain sample database; develop and maintain test result look-up web application for hunters; public outreach and education (news releases, blog, social media, design posters and brochures); field sampling; data entry, sample packaging and shipping; training; annual report writing and planning	\$272,100
Vehicle Expenses	Travel to check stations, taxidermists, game meat processors, and WSDOT pits to collect samples; deliver laboratory samples; dispose of cervid heads and carcasses	\$9,000
Goods & Services	Sampling and shipping supplies; sample shipping; PPE for samplers; lab fees; payment to taxidermists and game meat processors for cervid heads; print and mail letters to taxidermists and game meat processors; cervid carcass and head disposal fees; print and distribute brochures and/or posters.	\$101,420
TOTAL		\$382,520

1215

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DRAFT

1273 **Chapter 6: Initial Emergency Response**

1274 The Initial Emergency Response is the guiding document to be used in the event of a first
1275 detection of CWD in Washington. This document outlines the actions and process the
1276 Department will undertake after the first detection of a CWD-positive cervid in Washington. The
1277 Initial Emergency Response provides guidance on minimum requirements necessary to achieve
1278 the Department's objectives for management of the disease but allows for flexibility to
1279 accommodate for statewide variation in habitat, species-specific distributions, and pre-existing
1280 resource management objectives. This response references several of the management strategies
1281 found in Montana Fish, Wildlife and Parks' CWD Management Plan that was updated on April
1282 19, 2020 (Montana Fish, Wildlife, and Parks CWD Action Team 2020) and adheres to the best or
1283 alternative management practices outlined by AFWA published in 2018 (Gillin and Mawdsley
1284 2018).

1285 Chronic wasting disease has not been detected in Washington as of the completion of this
1286 Plan; however, lack of a systematic surveillance program to date limits understanding of
1287 Washington's current CWD status. The detection of CWD in Libby, Montana is the closest case
1288 to Washington's border to date (Montana Fish, Wildlife, and Parks 2020), and renewed interest
1289 in developing a comprehensive CWD management plan that included a response strategy to an
1290 initial detection in Washington. While this Initial Emergency Response was written prior to
1291 Washington's first detection, these guidelines may be followed and adapted for subsequent
1292 discrete detections within the state, as well as if a detection is made outside of Washington but
1293 within 10 miles of the border.

1294 Surveillance for CWD is essential to detect disease early in wild cervid populations and is
1295 thought to be critical to the success of disease management. Without a surveillance program, an
1296 initial detection could occur much later during an epidemic and CWD prevalence may be higher
1297 than expected. An initial CWD detection could occur when a pre-detection surveillance program
1298 is implemented in Washington. Due to Washington's current unknown CWD status, the Initial
1299 Emergency Response was developed to understand disease prevalence and distribution and
1300 concurrently attempt to minimize spread of CWD to other susceptible populations. While the
1301 response is prescriptive and each phase is in the order for which it should be initiated, certain
1302 aspects of each phase will occur simultaneously. For example, the Initial Response Phase calls

1303 for hunter harvest and Department-directed sampling of cervids that will contribute to the effort
1304 to understand disease prevalence and distribution during the Disease Assessment Phase. The
1305 timeline to complete each phase will be dependent on when CWD is first detected during the
1306 calendar year and when the first sampling efforts can be implemented. Due to the slow nature of
1307 this disease, it is reasonable and likely that completion of the Initial Emergency Response will
1308 occur over the course of multiple years. It is important to note that many of the following
1309 recommended response and management actions will require revisions to the Washington
1310 Administrative Code.

1311 To test and validate the Department's CWD initial emergency response, key staff will
1312 complete incident command system (ICS) training provided by the Federal Emergency
1313 Management Agency (FEMA). Once ICS training is completed, the Department will organize
1314 and conduct a "tabletop" exercise with staff and stakeholders to identify strengths, deficiencies,
1315 additional potential resource requirements, and any needed improvements to the initial
1316 emergency response.

1317 **Initial Response Phase**

1318 During the Initial Response Phase, the overriding goal is to prevent CWD from becoming
1319 established in the population assuming CWD is detected early during the outbreak determined
1320 using a pre-detection surveillance program. Thus, our primary objective will be containment of
1321 CWD within the immediate area of detection by reducing density of the affected cervid
1322 population and removing attractants that artificially congregate cervids, as well as restricting
1323 movement of CWD infected animals and contaminated materials. Strategies to achieve this
1324 objective will be contingent upon timing (e.g., detected outside of the hunting season or during
1325 the hunting season), location (e.g., winter or summer range or along a migration route), and other
1326 associated factors (e.g., species, wild vs. captive). In a wild population, the preferred course of
1327 action is to use hunters for the majority of animal removals and sample collection when feasible,
1328 and to implement Department-directed culling in cases where hunting and hunter access is
1329 prohibited, not feasible, or would not achieve desired scale of removal. This management
1330 strategy simultaneously allows the Department to gather information regarding distribution of
1331 CWD infected animals across space and prevalence in the affected cervid population. These
1332 initial actions will require significant and immediate increases in staff time and Department

1333 resources. Coordination with other government agencies, Tribes, landowners, and stakeholders
1334 will be vital for a successful initial response.

1335 *Convene the Incident Response Team (IRT)* .—The Department’s Director will appoint
1336 the Response Manager (RM) after the initial detection of CWD and ensure they complete ICS
1337 training¹ provided by the FEMA. It is the responsibility of the Response Manager to organize
1338 and lead the Incident Response Team (IRT) and consult with the Director’s Office regarding IRT
1339 actions and needs. The IRT should include representation from the following Departmental staff:

- 1340 • Regional Wildlife Program
- 1341 • Public Affairs Division
- 1342 • Regional Enforcement
- 1343 • Regional Private Lands and Wildlife Conflict
- 1344 • Game Division
- 1345 • Wildlife Program Science Division

1346 Depending on the location of an initial CWD detection, representatives from more than
1347 one region may need to be included on the IRT. The IRT will also include representatives from
1348 additional entities as deemed appropriate, including, but not limited to, representatives from the
1349 WSDA, Washington State Department of Health, Washington Animal Disease Diagnostic
1350 Laboratory, affected Tribes, Washington Department of Natural Resources, universities, affected
1351 timber companies, and appropriate federal land managers. If CWD is detected within 10 miles
1352 of Washington’s border with British Columbia, Idaho, or Oregon, representatives from these
1353 jurisdictions may also become members of the IRT.

1354 The role of the IRT is to implement the Initial Response Phase herein described,
1355 primarily by defining the Initial Response Area (IRA) and Transport Restriction Zone (TRZ) and
1356 determining the feasible strategies to achieve the primary goal of preventing endemic CWD in
1357 the affected population. Duties include outlining IRT communication with Department staff and
1358 partners, implementing emergency regulations, addressing logistical and personnel needs and
1359 issues, developing and approving initial response procedures, and ensuring immediate and long-
1360 term external communication needs with our stakeholders, such as writing and sending letters to

¹ If staff have not already received ICS training through FEMA, it will be provided to involved staff immediately.

1361 residents, landowners and hunters, and holding public meetings (See Chapter 3 for details).
1362 Additionally, the IRT will coordinate field operations (training, enforcement, check stations) and
1363 ongoing contingency response needs. Determination and legal definition of the IRA and TRZ is
1364 the first task of the IRT. Additional immediate tasks include reviewing the status of the affected
1365 population within the IRA and subsequent sampling actions (to include sampling protocols,
1366 license types, and means of distribution and number of licenses) and focused communications
1367 with area landowners, the broader citizenry of both the IRA and the TRZ, and the public at large.

1368 *Identify CWD Management Areas.—*

1369 1. Define the Initial Response Area (IRA)

1370 Immediately following an initial detection of CWD, the Department will define an
1371 IRA with a radius of approximately 10 miles around the site of detection and use this
1372 as a guide to legally delineate the boundaries of the IRA. In certain cases, the IRA
1373 may be established if a positive detection is made within 10 miles of Washington’s
1374 border but outside of the state. The IRA will be described and mapped using logical
1375 and/or natural boundaries such as roads, creeks, and ridge tops to facilitate ease of
1376 understanding and subsequent management actions. The Department may post signs
1377 at major access points identifying the area as an IRA and that special hunting rules
1378 and other regulations apply. The IRT will use existing data or, if data are unavailable,
1379 use expert knowledge, to identify factors that may influence CWD distribution and
1380 spread. Existing data and knowledge may include information on the size, density,
1381 distribution, and age and sex ratios of impacted cervid populations and movement
1382 corridors and connectivity with neighboring populations. If key knowledge gaps exist
1383 at the time of CWD detection, these data may be pursued when development of
1384 longer-term post-detection management activities become necessary. Contact with
1385 private landowners within the IRA will be directed by the IRT. The purpose of these
1386 communications will be to inform landowners of the initial detection and
1387 implementation of the CWD Initial Emergency Response. Within the IRA, the
1388 Department may immediately pursue the following actions:

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- Sampling of all hunter-harvested and salvaged road-killed cervids via mandatory check at specific Department offices and check stations (see Disease Assessment Phase for details)
 - Department-directed sample collection of all cervid carcasses opportunistically found, such as mortalities from vehicle collisions and research animals
 - Lethal-removal and sample collection of any cervid appearing to have clinical signs consistent with CWD (see Disease Assessment Phase for details)
 - Evaluation and potential termination of feeding and baiting of wildlife that may attract any cervid species if not already prohibited (See Chapter 4)
 - Department-directed culling to reduce cervid density (see Disease Assessment Phase for details)
 - If a free-ranging cervid tests positive for CWD and a captive facility is located within 10 miles of the positive case, WDFW and WSDA will work together to test all mortalities of captive cervids for CWD

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Importantly, the above actions may require the Department to seek adjustments to its legal authority.

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2. Define the Transport Restriction Zone (TRZ)

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In addition to the IRA, the Department will define a TRZ to minimize the potential for geographic spread of CWD. The TRZ will include a larger area than the IRA to provide reasonable access to meat processors and taxidermists and to ensure appropriate sanitary disposal of carcass parts is possible. Once a TRZ is established, it will remain in place indefinitely and boundaries will be redefined based on information gathered during implementation of the Disease Assessment Phase (see below).

1413

1414

In addition to the actions outlined for the IRA, the Department may immediately implement the following actions, rules, and restrictions within the TRZ:

- 1415
- Carcass Transport Restrictions and Disposal
 - From within the IRA, only the following can be lawfully transported outside of the TRZ boundaries:
 - Boned-out meat
 - Skulls and antlers, antlers attached to the skull plate, or upper canine teeth (bugler, whistlers, ivories) from which all soft tissue has been removed
 - Hides or capes without heads attached
 - Tissue for use by a diagnostic or research laboratory
 - Finished taxidermy mounts
 - Outreach to hunters and other members of the public regarding approved disposal of cervid carcasses and restricted parts
 - Identification of Department-approved landfills and incinerators will be made available online and updated as needed
 - Handling, Transport, and Attraction of Live Cervids
 - Rehabilitation of cervid species will be prohibited within the TRZ and rehabilitated cervids cannot be lawfully released within the TRZ
 - Relocation of live cervids into and out of the TRZ for conflict mitigation will be prohibited, and limited within the TRZ under special circumstances where public safety is threatened
 - Evaluate and remove where appropriate points of artificial cervid concentration such as feeding and baiting stations, mineral licks, and guzzlers
 - All ongoing cervid capture operations and requests for scientific collection permits within the TRZ that involve transport of live or dead cervids will be reviewed by the IRT and other appropriate Department personnel to ensure capture and research protocols do not contribute to CWD transmission and geographic spread
 - Removal
- 1443

1444 ○ Further reduction in cervid density at artificial concentration areas within
1445 the TRZ may require hunters or Department personnel to cull animals with
1446 landowner cooperation if not on public lands

1447 3. Response to CWD Detection in Captive Cervids

1448 Detection of a CWD-positive cervid in a captive facility will result in immediate
1449 depopulation of the entire stock, as well as subsequent implementation of the Initial
1450 Emergency Response testing of free-ranging cervids within the IRA, centered on the
1451 captive facility where the positive detection occurred. If a free-ranging cervid tests
1452 positive for CWD and a captive facility is located within 10 miles of the positive case,
1453 the Department and WSDA will work together to test all mortalities of captive
1454 cervids for CWD. If a CWD positive animal is found in a zoo, the Department will
1455 work with the facility to assess the risks to native wild cervids.

1456 *Implement Public Information Campaign.*—Immediately following verification of a new
1457 detection of CWD, the Department’s Public Affairs Division will begin an intensive information
1458 campaign as described in the Washington CWD Public Outreach and Communication Plan
1459 (Chapter 3). The information campaign will identify the site of detection, the actions the
1460 Department will take, and most importantly, the reasons such actions are necessary. A well-
1461 informed public that is aware of and concerned about the risks of CWD to Washington’s wildlife
1462 is critical in maintaining support for management efforts by the Department. To facilitate this
1463 campaign, the Department will engage with stakeholder groups to understand their concerns
1464 regarding the disease, management, and cervid populations.

1465 **Disease Assessment Phase**

1466 During the Disease Assessment Phase, the objective is to document and quantify CWD
1467 prevalence and distribution throughout the IRA. The information gathered from this initial
1468 assessment will guide the Department’s actions for future surveillance throughout the state,
1469 monitoring within and directly surrounding the IRA, research, and disease management.

1470 Measuring prevalence requires an unbiased, random sample of the target population.
1471 Washington has the added complexity of multiple cervid species occupying the same general
1472 areas. Prevalence of CWD will be tracked separately for each species to account for
1473 epidemiological differences among them. Samples will be collected as evenly as possible from

1474 across the IRA and in rough proportion to the available species, age, and sex classes within the
1475 IRA to achieve an unbiased estimate of prevalence. If the Department is unable to sample all
1476 cervid species within the IRA (e.g., limited funding), the Department will use species-specific
1477 information about CWD susceptibility, relative abundance, and IRA-specific sampling feasibility
1478 to guide disease monitoring efforts. Given evidence that CWD-positive animals may be more
1479 susceptible to wildlife-vehicle collisions (Krumm et al. 2005) and predation (Krumm et al.
1480 2010), and that animals showing clinical signs are more likely to be CWD-positive (Miller et al.
1481 2000), test results from these animals will be analyzed separately from hunter-harvested animals
1482 in calculating overall prevalence. Samples from symptomatic (“target”) animals like those
1483 mentioned above are helpful in determining the distribution of CWD across the area of interest
1484 but are less useful when the objective is to measure disease prevalence within the population.

1485 *Implement Sample Collection within the Initial Response Area (IRA).*—Sampling to
1486 estimate prevalence and distribution will be achieved using existing public hunting mechanisms
1487 whenever possible, and to the degree practical. However, there may be circumstances where
1488 public hunting is not suitable or is unlikely to achieve the desired results, such as in areas with
1489 high human densities and resulting potential for human conflict. If a sex or age class is under-
1490 sampled, additional sampling may be required. In these cases, other sampling strategies, such as
1491 landowner permits, or Department-directed removals may be considered in addition to existing
1492 public hunts.

1493 1. Use Existing Hunting Mechanisms and Damage Prevention Programs

1494 When feasible, the Department will attempt to use existing hunting mechanisms and
1495 damage prevention programs to achieve a random sample of cervids for CWD testing.
1496 Hunters will be required to follow additional rules and regulations when hunting within
1497 the IRA including:

- 1498 • Mandatory sampling of all harvested cervids within an IRA
 - 1499 ○ Hunters will have 72 hours to report their harvest and to submit a sample at a
1500 Department-approved location
 - 1501 ○ Sites for submitting samples will include District or Regional Offices,
1502 taxidermists, meat processors, drop-off receptacles such as “head barrels”
1503 located throughout the IRA, check stations, or mail-in sampling kits

- 1504 ○ Submission may include the whole head or appropriate tissues for CWD
- 1505 testing depending on species (e.g., retropharyngeal lymph nodes from deer,
- 1506 obex region of the brainstem and retropharyngeal lymph nodes from elk and
- 1507 moose)
- 1508 ○ Hunters must provide all information as requested by the Department
- 1509 ○ Hunters who harvest a cervid that tests positive for CWD will be contacted by
- 1510 the Department to ensure proper disposal of unwanted meat and carcass parts
- 1511 and provide guidance on cleaning hunting equipment (see Chapter 3)
- 1512 ○ All hunters who submit a CWD sample will be able to look up their CWD
- 1513 results using a web application on the Department website using their WILD
- 1514 ID
- 1515 ● Cervid entrails, hides, bones, and trimmings may be left at the kill site or disposed of
- 1516 at a Department-approved landfill or via other Department-approved means within
- 1517 the TRZ. Hunters can transport the following outside of the TRZ:
- 1518 ○ Meat that has been de-boned
- 1519 ○ Cleaned (all tissue such as muscle, brain, and velvet removed) antlers, antlers
- 1520 attached to the skull plate, or upper canine teeth (i.e., buglers, whistlers,
- 1521 ivories)
- 1522 ○ Hides or capes with head removed
- 1523 ○ Finished taxidermy mount

1524 2. Modify Existing Hunting Mechanisms and Damage Prevention Programs

1525 Current hunting seasons and number of permits may not achieve sample sizes needed to
1526 provide a meaningful estimate of CWD prevalence. To meet sample size needs, the
1527 Department will attempt to maximize hunting opportunities by:

- 1528 ● Adjusting hunting season dates for specific species and weapon types most likely to
- 1529 result in an increase harvest of the species and sex and age class(es) of interest
- 1530 ● Adjusting antler point restrictions for specific species and GMUs
- 1531 ● Adjusting special permit opportunities for specific species, sexes, age classes, and
- 1532 GMUs most likely to result in an increase harvest of the species of interest

1533 3. Department-directed collections

1534 If modifications to hunting seasons and number of special permits do not achieve the
1535 minimum sample size needed or provide adequate samples from across the IRA, the
1536 Department and collaborating agencies may implement Department-directed removals of
1537 cervids where feasible. Landowner participation is voluntary. Therefore, it is vital that
1538 messages to the public and to individual landowners effectively communicate the genuine
1539 threat that CWD poses to the state's cervid populations, the importance of timely action
1540 and support from the public, and the steps described in this Initial Emergency Response.
1541 The Department will make every effort to address individual landowners' concerns
1542 related to participation in Department-directed sample collection.

1543 *Estimate CWD Prevalence and Map Distribution.*—While pre-detection surveillance
1544 aims to detect CWD at no more than 1% of the population infected, true CWD prevalence will be
1545 unknown for the affected target area. To ensure CWD prevalence is estimated to a degree of
1546 precision with adequate power to detect a higher than the 1% expected prevalence, sample size
1547 can be calculated as $n = p(1 - p)(Z_{\alpha/2} + Z_{1-\beta})^2 / (p - p_0)^2$, where p is the true prevalence, p_0
1548 is the minimum CWD prevalence threshold, $\alpha/2$ is the confidence interval, and $1 - \beta$ is power
1549 (Figure 3).

1550 The Department will document disease assessment efforts through production of a post-
1551 surveillance CWD report that will describe the sampling effort, number of samples collected and
1552 tested, and CWD prevalence and distribution results. Dissemination of the completed report will
1553 be part of the public information campaign led by the Department's Public Affairs Division.

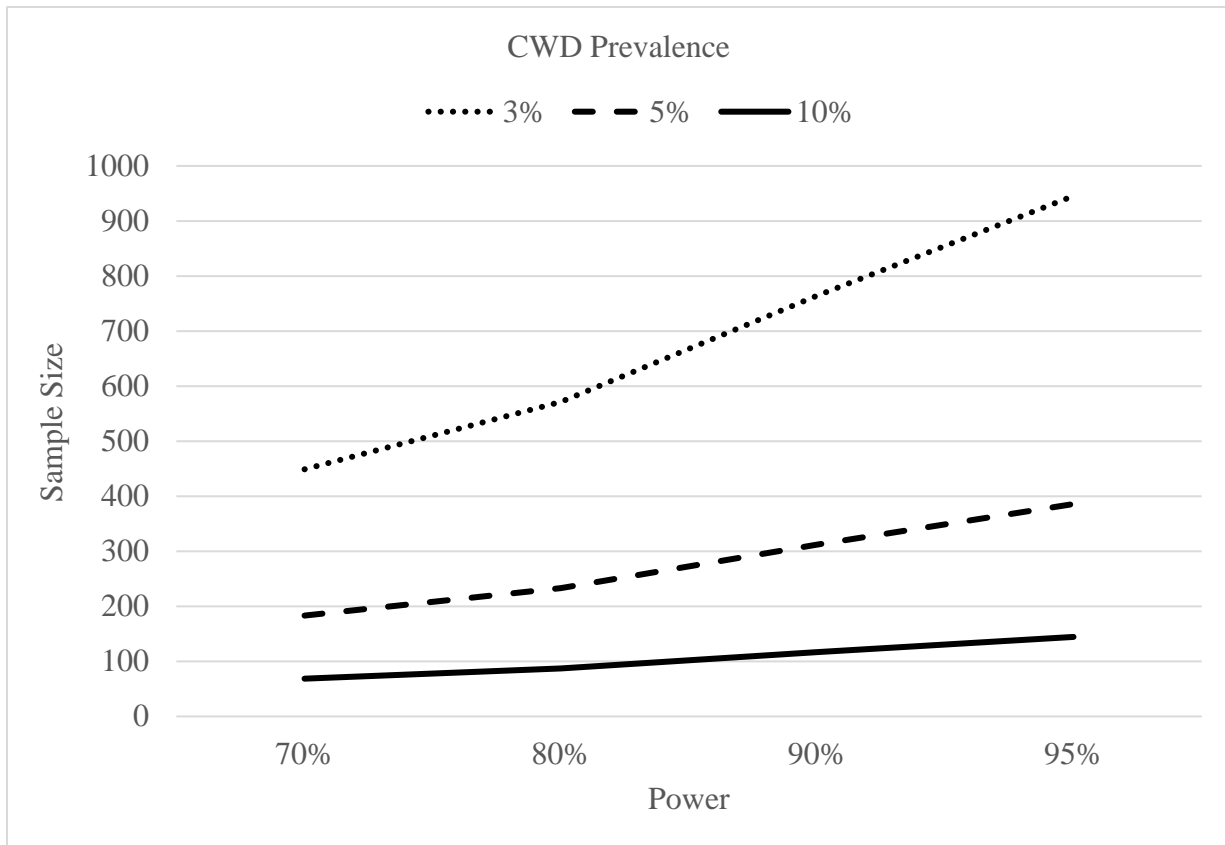


Figure 3. Sample size calculation for a 95% confidence interval centered at 3%, 5% or 10% CWD prevalence with 70%-95% power to detect the true prevalence is indeed higher than the expected 1%.

1554 **Evaluation Phase**

1555 *Evaluate Initial Response and Disease Assessment Phase* .—The IRT will evaluate the
 1556 results of the initial response and disease assessment to inform future surveillance, monitoring,
 1557 and management actions related to the disease. During the Evaluation Phase, the IRT will
 1558 specifically assess the outcome of each action implemented and degree to which it successfully
 1559 aided the Department in meeting the objective to contain CWD and prevent transmission outside
 1560 of the affected area. Evaluation of the initial response and disease monitoring actions will
 1561 attempt to address the following questions:

- 1562 • Did the action achieve the desired response in the affected cervid population (e.g.,
- 1563 removal of food attractants to reduce deer densities at those sites)?
- 1564 • Did the action achieve public support?
- 1565 • Did the action produce the needed sample size to generate reliable estimates?

- 1566 • Were staff able to carry out the action, and can that level of effort be sustained?
- 1567 • Did written descriptions and maps of the boundaries of the IRA and TRZ
- 1568 communicate needed information clearly and simply enough to ensure staff, hunters,
- 1569 and landowners were able to easily understand and effectively comply with
- 1570 management actions?
- 1571 • Based on estimated prevalence and distribution of the disease, should the boundaries
- 1572 of the IRA and TRZ be modified?

1573 The IRT will produce a written document that addresses these questions and others
1574 considered important to evaluating the success or failure of the Initial Emergency Response and
1575 disease assessment. The evaluation will also include identification of specific challenges that
1576 arose during each step and determine how best to effectively address each challenge through
1577 adapting existing protocols or identification of new methods that might be better able to produce
1578 the desired results. This document will provide necessary information for improving the
1579 Department’s response to newly identified CWD detections in Washington.

1580 *Determine Next Steps* .—After evaluating the efficacy of the initial response and disease
1581 assessment, the IRT may decide to repeat those phases to implement changes that will better
1582 meet the CWD objectives of the initial response (e.g., modify the boundaries of the IRA and
1583 expand the TRZ to better contain CWD within the affected zone). If objectives were met during
1584 the first two phases, the Department will develop and implement long-term CWD management
1585 strategies for the local herd based on what was learned during the disease assessment phase
1586 (Figure 4). Long-term management actions will be most effective if stakeholders, land managers,
1587 and cervid comanagers are engaged and participate in the process from the beginning when an
1588 initial case is detected. Additionally, the current surveillance program will be re-evaluated to
1589 determine if it sufficiently examines high-risk areas within the state considering the location of
1590 the new detection(s).

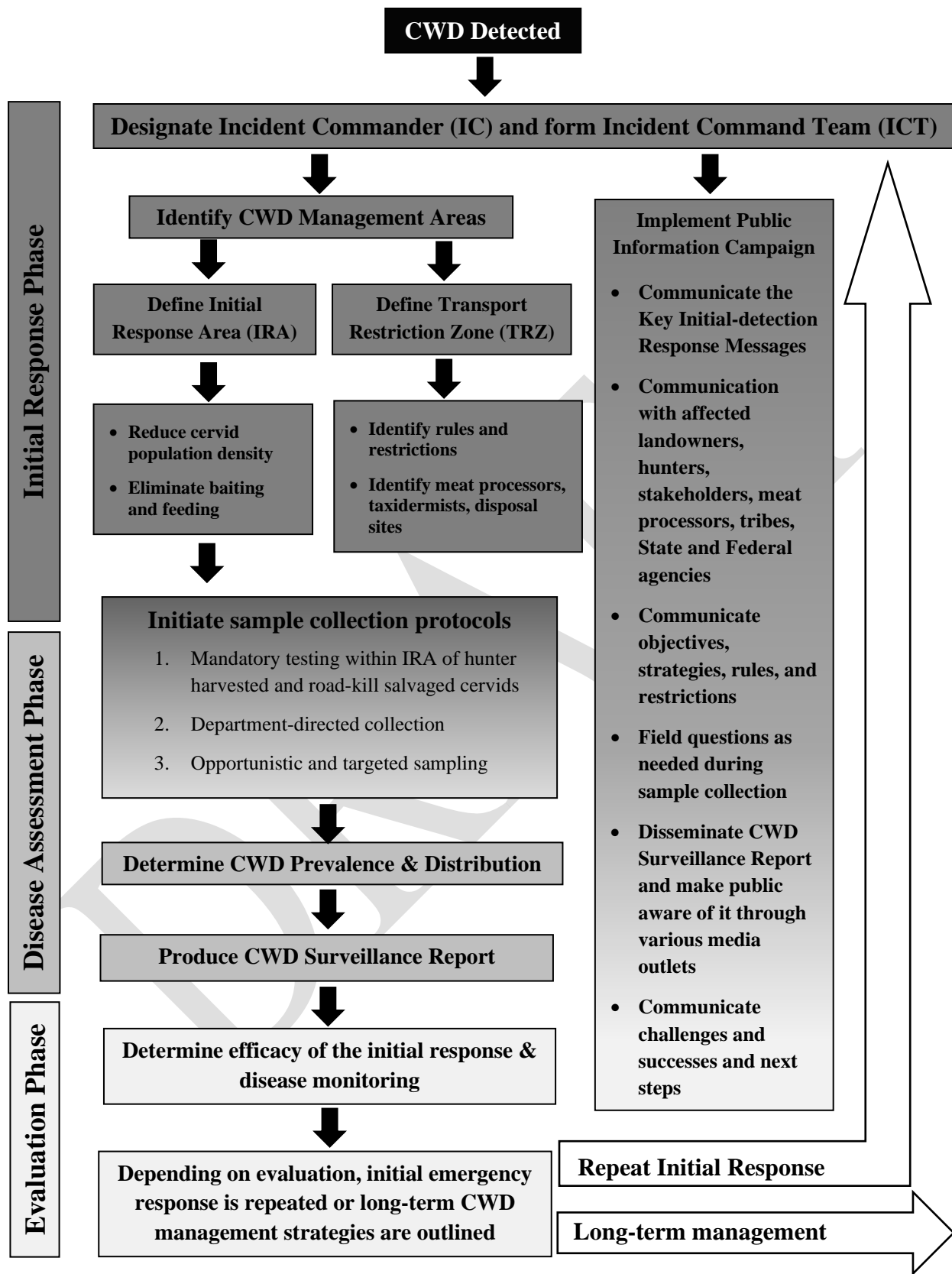


Figure 4. CWD response flow chart.

1592 **Estimated Costs for Initial Emergency Response**

1593 While difficult to predict the cost of the Department’s Initial Emergency Response to the first
1594 detection of CWD in the state, Montana’s recent experience may be informative and provide
1595 insight into what a similar response would cost in Washington. During the 2020 fiscal year,
1596 Montana Fish, Wildlife, and Parks spent approximately \$441,000 on their CWD response (Table
1597 5). Eighty-two percent of these costs were paid through Federal Aid in Wildlife Restoration
1598 (Pittman-Robertson) funds, and the remaining came from general license and elk and mule deer
1599 license revenue. (Montana Environmental Quality Council 2020).

1600 Table 5. Montana Fish, Wildlife, and Parks CWD Response FY 2020 Expenditures.

Item	Cost
Personal Services	\$193,943
Contracted Services and Supplies	\$176,312
Travel	\$ 44,078
Miscellaneous	\$ 26,447
TOTAL	\$440,780

1601

1602 **LITERATURE CITED**

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1620 Colorado, USA.
- 1621

1622 **Appendix A. Key CWD Management Messages for Public Outreach Efforts**

1623 **Key Pre-detection Messages:**

1624 *What Is Chronic Wasting Disease?*

- 1625 • Chronic wasting disease (CWD) is a disease of the deer family Cervidae (cervids);
- 1626 including white-tailed, mule deer, black-tailed deer, elk, moose, and caribou.
- 1627 • It is a form of transmissible spongiform encephalopathy (TSE), an infectious and always
- 1628 fatal disease characterized by deterioration of brain tissue.
- 1629 • TSEs are caused by malformed proteins called prions (“pree-ons”). Other TSEs include
- 1630 scrapie of domestic sheep and goats, bovine spongiform encephalopathy (BSE) of cattle
- 1631 (i.e., mad cow disease), and Creutzfeldt-Jacob disease (CJD) and variant CJD
- 1632 (transmitted by consuming beef from animals with BSE) of humans.
- 1633 • There is no cure or vaccine for CWD or any other TSE, it is always fatal.
- 1634 • To date, CWD has not been detected in Washington but has been detected in white-tailed
- 1635 deer, mule deer, elk, and moose in nearby states and provinces.
- 1636 • CWD can cause population-level declines once it becomes widespread in a herd

1637 *How Is CWD Spread?*

- 1638 • Infected cervids shed CWD prions in their saliva, urine, and feces; and their decomposing
- 1639 carcasses contaminate the environment.
- 1640 • CWD can be transmitted between cervids through both direct contact with infected
- 1641 animals, and indirectly through contact with contaminated materials in the environment
- 1642 like soil or vegetation and bodily fluids from infected animals.
- 1643 • CWD prions can persist in the environment for years and potentially decades, and there
- 1644 are no practical methods for removing them from the landscape once present.

1645 *What Practices Increase the Risk of CWD Spread?*

- 1646 • Infected captive cervids have been the source of CWD introduction into several other
- 1647 states and provinces, and the movement of captive cervids is considered to be the biggest
- 1648 risk for introducing CWD into a new area.
- 1649 • CWD can be spread through transport of infected hunter-harvested carcasses and carcass
- 1650 parts to areas where CWD is not present.

- 1651 • Feeding and baiting creates CWD transmission hotspots where animals become infected
1652 through direct or indirect contact with infectious prions by congregating at artificially
1653 high densities and for long durations at these sites.
- 1654 • Urine-based scent lures for hunting pose a risk of spreading CWD if the urine was
1655 collected from an infected cervid farm. There are no reliable tests to determine if the
1656 product is free of CWD prions.

1657 *How Do I Know if an Animal has CWD?*

- 1658 • Most cervids with CWD appear and behave normally until the later stages of the disease.
1659 Animals in the terminal phase of CWD may have excessive weight loss, appear
1660 uncoordinated and lethargic with heads down and ears drooping, salivate excessively,
1661 drink more water than usual, and isolate themselves from other animals.
- 1662 • Clinical signs associated with CWD can also be seen with other disease conditions, and
1663 alone are not conclusive evidence that an animal has CWD. Diagnosis requires testing of
1664 certain lymph nodes or the brainstem from dead animals.
- 1665 • Live animal tests are used in some research and captive settings, but due to the invasive
1666 nature of the procedure, less accuracy for detecting CWD prions, and the need to capture
1667 animals for testing, are impractical for large scale surveillance of free-ranging cervids.

1668 *Does CWD Affect Humans? What About Other Animals?*

- 1669 • There is no conclusive evidence that CWD can be transmitted from cervids to humans.
1670 Nonetheless, the U.S. Centers for Disease Control and Prevention advise against eating
1671 the meat of *any* animal known to be infected with a TSE, and the Washington
1672 Department of Fish and Wildlife (WDFW) advises against shooting, handling, or eating
1673 the meat of any animal that appears sick or is acting abnormally.
- 1674 • While prions may be found in all tissues of infected animals, hunters can decrease their
1675 risk of exposure by not consuming tissues where CWD prions accumulate (e.g., brain,
1676 spinal cord, eyes, spleen, pancreas, lymph nodes), wearing disposable gloves while field
1677 dressing game, thoroughly washing hands and equipment after processing carcasses with
1678 soap and water, and disinfecting processing equipment by soaking in a 40% household
1679 bleach solution (mixed with water) for a minimum of 5 minutes then rinsing with water.

- 1680 • There are no confirmed cases of CWD transmission from cervids to pets, livestock, or
1681 other wild ungulate species such as bighorn sheep, mountain goats, and pronghorn.

1682 *What is WDFW Doing about CWD?*

- 1683 • Washington took action to reduce the state’s risk of CWD in 1993 by curtailing most
1684 cervid farming, including a ban on the importation of live deer, elk, and other cervids
1685 (Washington Administrative Code (WAC) [220-450-030](#) and [220-640-200](#)).
- 1686 • In 2005 the Washington Fish and Wildlife Commission adopted permanent rules (WAC
1687 [220-413-030](#)) restricting the importation and possession of certain deer, elk, and moose
1688 carcass parts into Washington from states and Canadian provinces where chronic wasting
1689 disease (CWD) has been found in wild cervid populations; and requiring hunters to notify
1690 WDFW within 24 hours of learning that a cervid they harvested in another state or
1691 province has tested positive for CWD.
- 1692 • WDFW conducted systematic surveillance for CWD from 2001-2011 when Federal
1693 funding was available for this activity. Systematic surveillance for CWD is essential to
1694 detect disease early in wild deer and elk populations and is critical to the success of
1695 disease management because once the disease becomes established and widespread in a
1696 population, it becomes increasingly difficult to control.
- 1697 • With the end of Federal funding, CWD testing in Washington has been limited to animals
1698 showing clinical signs consistent with the disease.

1699 *What Can I Do to Help?*

- 1700 • Hunter cooperation is needed to keep Washington deer, elk, and moose populations
1701 healthy. Compliance with WAC [220-413-030](#), which regulates how hunters can bring
1702 meat and trophies back to Washington from other states and provinces, is critical for
1703 preventing the introduction of CWD into our state.
- 1704 • If hunters are notified by another state or provincial wildlife agency that their animal has
1705 tested positive for CWD, they are required to notify the Department within 24 hours for
1706 instructions on how to properly dispose of high-risk carcass parts and unwanted meat.
- 1707 • Cervids showing clinical signs consistent with CWD should be reported to WDFW
1708 [online](#), or to the nearest [WDFW Regional Office](#).

1709 **Key Initial-detection Response Messages:**

- 1710 • Washington's first case of Chronic Wasting Disease (CWD) was discovered (today)
1711 when results were received from a test of tissue from a (e.g., disabled elk that was
1712 reported by hunters) in the (specific area).
- 1713 • CWD is a form of transmissible spongiform encephalopathies (TSE), which are
1714 infectious diseases characterized by deterioration of brain tissue. TSE's are caused by
1715 malformed proteins called prions. Other TSEs include scrapie of domestic sheep and
1716 goats, bovine spongiform encephalopathy (BSE) of cattle (i.e., mad cow disease), and
1717 Creutzfeldt-Jacob disease (CJD) and variant CJD (transmitted by consuming BSE-
1718 infected beef) of humans.
- 1719 • CWD, which is always fatal and for which there is currently no cure, can spread to other
1720 wild cervids (deer, caribou, elk, and moose) and over time can reduce cervid populations.
- 1721 • To date there are no confirmed cases of CWD transmission from wildlife to domestic
1722 animals and from cervids to other wild ungulate species, such as bighorn sheep, mountain
1723 goats, and pronghorn.
- 1724 • While there currently is no scientific evidence of CWD being transmitted from cervids to
1725 humans, the [United States Centers for Disease Control and Prevention](#) recommends
1726 against consuming meat from an animal that has tested positive for CWD.
- 1727 • Although CWD is not known to affect humans, hunters who harvest elk, deer, or moose
1728 in the affected area, or anyone who salvages a road-killed animal can take actions to
1729 minimize their risk of becoming infected. The Department advises hunters to:
- 1730 • Avoid harvesting any animal that appears sick or is behaving strangely, but report
1731 location and other relevant data about the sighting to WDFW as soon as possible (give
1732 contact info or information needs).
- 1733 • Wear disposable gloves while field dressing game.
- 1734 • Thoroughly wash hands and equipment after processing carcasses.
- 1735 • Knives, field dressing, and meat processing equipment should be cleaned first of any
1736 tissue and then disinfected by soaking in a 40% household bleach solution (mixed with
1737 water) for a minimum of 5 minutes, and rinse after soaking with water.
- 1738 • Avoid consuming parts where the CWD prion accumulates including brain, spinal cord,
1739 eyes, spleen, pancreas, tonsils, and lymph nodes.

- 1740 • Avoid cutting through bone, brain, and spinal cord.
- 1741 • WDFW staff are collecting tissue samples from many deer and elk within the Initial
- 1742 Response Area (IRA), which is an area that is approximately 314 miles² (10 mile radius
- 1743 centered on positive case), and from hunter-harvested elk, deer, and moose to help
- 1744 determine the prevalence and distribution of the disease.
- 1745 • If more diseased animals are found, the affected population will be reduced to limit the
- 1746 spread, possibly using special hunts, landowner kill permits, and Department-led
- 1747 reductions.
- 1748 • WDFW is collaborating with landowners, land management agencies, state and local
- 1749 governments, tribal co-managers and sportsmen and conservation groups in the affected
- 1750 area to respond to this disease and attempt to reduce its spread.
- 1751 • Residents/landowners within the IRA have been notified and asked to be alert to other
- 1752 symptomatic animals and report them to WDFW by calling xxx-xxx-xxxx.
- 1753 • WDFW has defined a Transport Restriction Zone (TRZ) to minimize the potential for
- 1754 geographic spread of CWD. The TRZ surrounds the IRA to provide reasonable access to
- 1755 meat processors and taxidermists, and to ensure appropriate sanitary disposal of carcass
- 1756 parts is possible.
- 1757 • Hunters who harvest deer, elk, or moose within an IRA will be required to dispose of the
- 1758 remains in a Department-approved landfill or via other Department-approved means
- 1759 within the defined TRZ to reduce the risk of transporting CWD to other areas. Hunters
- 1760 can transport de-boned meat, cleaned (no tissue such as muscle, brain, velvet attached)
- 1761 skulls, antlers, antlers attached to skull plates, upper canine teeth (i.e., buglers, whistlers,
- 1762 and ivories), hides or capes without head attached, and finished taxidermy mounts.
- 1763 • Although CWD is not known to transfer from wild cervids to domestic livestock, the
- 1764 Department is also working to share disease information and updates with the
- 1765 Washington State Department of Agriculture, local livestock producer associations, and
- 1766 individual producers.
- 1767 • WDFW has been intermittently looking for evidence of the disease in Washington since
- 1768 1995; CWD has been documented in wild or captive cervids by 26 other states and 4
- 1769 provinces (first documented in Colorado in 1967).

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- 1771
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- 1775
- Managing CWD has proven difficult due to various obstacles such as lack of a vaccine or treatment for infected animals, long incubation period and shedding of prions by asymptomatic individuals, and the persistence of CWD infectious materials in the environment for many years. While challenging, other wildlife agencies continue to take steps to prevent or minimize the spread of the disease, and WDFW is committed to doing the same.

DRAFT