

Secretary of State  
**NOTICE OF PROPOSED RULEMAKING HEARING\***  
A Statement of Need and Fiscal Impact accompanies this form.

Oregon Department of Fish and Wildlife (ODFW) – Wildlife Division	635	
Agency and Division	Administrative Rules Chapter Number	
Casaria Tuttle	3406 Cherry Ave. NE, Salem, OR 97303	(503)947-6033
Rules Coordinator	Address	Telephone

**RULE CAPTION**

Amend rules related to Holding of Cervids

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**Not more than 15 words that reasonably identifies the subject matter of the agency's intended action.**

April 18, 2008	8:00AM	3406 Cherry Ave N, Salem, OR 97303	Oregon Fish and Wildlife Commission
Hearing Date	Time	Location	Hearings Officer

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Hearing Date	Time	Location	Hearings Officer
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*Auxiliary aids for persons with disabilities are available upon advance request.*

**RULEMAKING ACTION**

Secure approval of new rule numbers (Adopted or Renumbered rules) with the Administrative Rules Unit prior to filing.  
**ADOPT:**

**AMEND:** OAR Chapter 635, Divisions 045, 049 and 200

**REPEAL:**

**RENUMBER:**

**AMEND & RENUMBER:**

Stat. Auth. : ORS 496.012, 496.138, 496.146, 496.162, 497.228, 498.002, 498.019, 498.052 & 174.106

Other Auth.:

Stats. Implemented: ORS 496.012, 496.138, 496.146, 496.162, 497.228, 498.002, 498.019, 498.052 & 174.106

**RULE SUMMARY**

Amend rules that govern holding and propagation of cervids in Oregon, and related issues (including the sale of elk meat).

The Agency requests public comment on whether other options should be considered for achieving the rule's substantive goals while reducing the negative economic impact of the rule on business.

April 18, 2008

**Last Day for Public Comment** (Last day to submit written comments to the Rules Coordinator)

  
Signature

Michelle Tate  
Printed name

2/15/08  
Date

\*Hearing Notices published in the Oregon Bulletin must be submitted by 5:00 pm on the 15th day of the preceding month unless this deadline falls on a weekend or legal holiday, upon which the deadline is 5:00 pm the preceding workday. ARC 920-2005

**STATEMENT OF NEED AND FISCAL IMPACT**

A Notice of Proposed Rulemaking Hearing or a Notice of Proposed Rulemaking accompanies this form.

Oregon Department of Fish and Wildlife (ODFW) Wildlife Division

635

Agency and Division

Administrative Rules Chapter Number

In the Matter of: Amendment of Rules:	)	Statutory Authority,
Relating to Holding of Cervids	)	Statutes Implemented,
	)	Statement of Need,
	)	Principal Documents Relied Upon,
	)	Statement of Fiscal Impact

Amend rules related to Holding of Cervids

Rule Caption: (Not more than 15 words that reasonably identifies the subject matter of the agency's intended action.)

Statutory Authority: ORS 496.012, 496.138, 496.146, 496.162, 497.228, 498.002, 498.019, 498.052 & 174.106

Other Authority:

Stats. Implemented: ORS 496.012, 496.138, 496.146, 496.162, 497.228, 498.002, 498.019, 498.052 & 174.106

Need for the Rule(s): On October 12, 2006, the MAD-Elk Coalition filed two petitions to amend Oregon Administrative Rules governing the private holding and propagation of Roosevelt and Rocky Mountain elk (OAR 635 Division 049) in ways that would have ended or phased out elk ranching in Oregon.

A third petition to amend these rules was filed January 11, 2007, by the Oregon Elk Breeders Association (OEBA) to ensure the long-term health and survivability of captive and wild elk.

The Commission considered these petitions at their January 12, 2007, meeting. After public testimony, the Commission denied all three petitions. The Commission directed the department to look for ways to amend the current rules for Type 1 Cervid Propagation Licenses and related rules (including those governing the sale of elk meat).


Documents Relied Upon, and where they are available: Minutes and recommendations of the Cervid Rule Advisory Group. The above document is available for public inspection at the Department of Fish and Wildlife, Wildlife Division, Third Floor, 3406 Cherry Ave N, Salem, OR 97303, between 8:00 a.m. and 4:00 p.m., on normal working days, Monday through Friday.

Fiscal and Economic Impact, including Statement of Cost of Compliance: See Attached

How were small businesses involved in the development of this rule? "The Fish and Wildlife Commission appointed a Cervid Rule Advisory Group which included (among others) representatives of small businesses (cervid ranches, livestock ranches). The CRAG reviewed the Commission's existing rules concerning Type I cervid licenses and offered recommendations for change. The CRAG's recommendations were considered when this rule package was drafted."

Administrative Rule Advisory Committee consulted?: Representatives from agricultural, elk ranching, environmental, animal rights and hunting interests as well as a non-ODFW scientist and representative of Oregon Department of Agriculture, participated in the Cervid Rule Advisory Group. They met five times between April 18 and August 14, 2007, to consider ways to improve rules for Type 1 Cervid Propagation Licenses."

If not, why?:

  
Signature

Michelle Tate  
Printed name

2/15/08  
Date

**Fiscal and Economic Impact Statement for the April 18, 2008 Hearing  
In the Matter of Rules Relating to Cervid Propagation**

Fiscal and economic impact: Rule changes are being proposed for the holding of cervids generally, and Type 1 cervid licenses in particular. The rule package also includes, as related 'housekeeping' matters, deletion of duplicative cervid-related definitions from the Division 45 rules and amendment of the existing rule in Division 200 (concerning sale of wildlife parts) which authorizes the sale of elk meat in Oregon. The proposed rules will affect state agencies, units of local government, and the public, respectively, as discussed below. The reader should keep in mind that Oregon law requires analysis of the fiscal and economic impact of proposed changes to the current rules regulating the private holding of cervids. In other words, this analysis assumes the level of regulation already in place in administrative rule, and focuses instead on whether the proposed rule changes would increase or decrease regulation; and if so, whether that increase or decrease in regulation would have any fiscal or economic impact.

Implicit in this analysis is the salient question of who should bear the risk of losses if a captive cervid herd either causes diseases or genetic contamination among Oregon's wild cervids. From an economic perspective, there is a risk of external economic effects on wild cervid resources that could be caused by cervid ranching operations, but that are not taken into account through the normal operation of the market economy.

Should the potential costs of these effects not be addressed through the proposed rules, then the public -- primarily Oregon's hunters and small businesses that cater to hunters -- would have to bear them. For example, if chronic wasting disease were passed from a cervid ranch to native cervids, there would be a significant negative impact to the Oregon Department of Fish and Wildlife (ODFW) from the costs of dealing with the outbreak. If hunting regulation changes then reduced opportunities, businesses who depend partly on hunter expenditures would suffer from reduced revenues. ODFW itself would probably experience a reduction in hunter license and tag revenues, which are used to fund wildlife programs.

State agencies which will be affected by the proposed rule changes include the Oregon Department of Fish and Wildlife (ODFW), the Oregon Department of Agriculture (ODA), the Oregon State Police (OSP) for enforcement costs, and other state agencies that help in removing escaped or released cervids from the wild. The ODFW will incur administrative costs to process reporting and respond to issues in captive cervid populations as a result of these rule changes. Specifics on these costs are outlined below with each specific proposed rule change.

No units of local government are expected to be affected by these rules. No significant changes from the current levels of any local agencies' operations or expenditures are expected as a result of the adoption of these rules.

At the February 9, 2007 meeting of the Oregon Fish and Wildlife Commission, staff proposed creating the Cervid Rule Advisory Group (CRAG) to review parts of Division

049 governing Type 1 Cervid Propagation Licenses for elk ranching. After public testimony, the Commission directed staff to proceed with creating the CRAG. Group membership is representative of the diverse interests in Oregon cervid ranching from hunting and environmental groups to cervid ranchers. The group identified issues and recommended rule revisions to the department. ODFW staff worked closely with the CRAG to consider options to improve the current rules for Cervid Propagation Licenses.

Among other things, the CRAG provided recommendations on the proposed rules' fiscal impact, pursuant to ORS 183.333(3). Members of the CRAG were consulted on fiscal impacts in the preparation of this document. Where possible, the CRAG process allowed for licensee input on the lowest cost ways to meet the goals of the Division 49 rule changes. What follows is an outline of the fiscal impacts for each proposed rule change.

The changes are intended to protect the wild cervid population from genetic contamination and diseases that could be a result of private cervid holding. ODFW accrues revenues annually from the sale of hunting licenses and tags. These sales depend on hunter success that is affected by the health of wild cervid populations and their availability for hunter harvest. Disease outbreak or genetic contamination could negatively affect these populations. It is difficult to predict in advance the extent of any ill effects of captive cervid holding on wild populations. It would also be difficult to assess the impact of disease or genetic contamination on a wild cervid population after the occurrence of such events. In turn, the effect of potential population loss or degradation on hunters is complex, and as a consequence, it is impossible to measure the magnitude of the potential license revenue loss.

The total (direct, indirect and induced) effects on personal income in the areas surrounding the associated hunting areas and statewide are the result of the direct expenditures on goods and services made by sport participants during their hunting trips. Through the "multiplier process", there is a resulting increase in economic activity and personal income in the general economy of the area and the entire state. A similar process applies to wildlife watching expenditures. Both large and small businesses that provide goods and services related to hunting and wildlife watching benefit financially from healthy wild populations in Oregon. Information is not available on the number of small businesses affected by wildlife populations.

Survey data from 1989 - 1991 Starkey Experimental Forest hunts in Eastern Oregon indicate average overall trip expenditure by elk and deer hunters of about \$285, with nearly \$150 of the total made in Eastern Oregon. This is equivalent to an average expenditure of \$52.36 per hunter day, of which an average of \$27.52 per hunter day was made in Eastern Oregon. In inflation adjusted 2006 dollars, the average expenditure per hunter day would amount to \$72 per hunter day, of which an average of \$38 would be spent in Eastern Oregon.

The relationship between direct, indirect and induced personal income from the direct trip expenditures per hunter day can be estimated based on response coefficients developed from an economic input-output model. Using the 1989 - 1991 Starkey Experimental

Forest data and information on the relationship between expenditures and the personal income associated with the spending, the state-level personal income impact per hunter day for Eastern Oregon deer and elk was about \$39; the personal income impact in Eastern Oregon was about \$13 per hunter activity day. Adjusting for inflation since 1991, the personal income impacts in 2006 dollars would be about \$54 per hunter day at the state level, and about \$18 per hunter day in Eastern Oregon.

No specific estimates are available for Western Oregon big game hunting. According to data from the 2001 National Survey of Fishing, Hunting and Wildlife-Associated Recreation (2003), total hunter expenditures in Oregon were about \$481.8 million in 2001. The impact on state level personal income was slightly over \$200 million, and the effect on gross output was \$879.6 million in 2001. Of the \$481.8 million in expenditures, \$240.2 million was for big game hunting. In 2006, wildlife watchers spent \$776.4 million on wildlife watching in Oregon. A portion of these expenditures can be attributed to big game watching.

In the case of the discovery of a non-endemic disease on a cervid ranch, immediate and drastic action would be taken to prevent transmission to the wild herd. The ODA and ODFW would incur costs to take such actions. The possibility exists that a captive herd would be euthanized and further actions such as monitoring and disease testing could be necessary in the wild. It might become necessary for the wild population to be monitored and tested for the disease. In a severe case, wild animals would be euthanized to prevent the spread of disease. In some situations, the United States Department of Agriculture would reimburse some or all of ODA's and ODFW's costs to manage the disease. This is true for brucellosis and tuberculosis, as these are managed under federal programs. Chronic wasting disease might also be responded to with federal aid to the agencies that deal with the outbreak.

There are 24 Type I cervid licenses at this time. Approximately 22 are commercial endeavors, the other licenses are held by hobbyists or government research facilities. These businesses raise and keep cervids for meat, sale of animals, cervid products, exhibition to the public, and scientific purposes.

Representatives of these small businesses were included in development of these proposed rule changes in the manner described below. Potential business costs of compliance to these rule changes are outlined below under each type of rule change.

It should be noted that some cervid ranchers already have voluntarily implemented some of the measures called for by the proposed rule changes. In these cases, the costs of compliance will be less than that discussed below for businesses that have yet to implement any of the changes. For the latter many of these proposed rule changes could have a negative fiscal impact.

The rule changes might affect tourism in the areas surrounding cervid businesses if they affect visitation rates. One cervid business owner stated that a local restaurant saw a 20 percent revenue increase that was directly attributed to his elk ranch. Aside from the 47

businesses who directly hold cervid licenses, there are many others that gain revenue from tourism to view captive cervids. It is uncertain whether implementation of these rule changes would reduce or eliminate opportunities for public animal viewing at licensed cervid ranches. But if they did, then to the extent that they reduce or eliminate the opportunities for public animal viewing, businesses that benefit from this tourism may be adversely affected. Furthermore, businesses that support elk ranches themselves might be negatively affected. An example is hay and feed businesses that supply the ranches.

Rule change: **Change of the policy statement** – A change is being proposed to the policy statement at the beginning of Division 49. If this is adopted, the statement may be changed from one of opposition to commercial or private use of native wildlife if it threatens native wildlife and their habitats to one of concern for commercial and private use of wildlife and its effect on native wildlife. There is no fiscal impact associated with this rule change because it does not pertain to actual requirements.

Rule change: **Addition of definitions** – Changes are being proposed to include definitions in Division 49. None of these definitions are changing, so there is no fiscal impact to any parties involved in this rule change.

Rule change: **Removal of dated sections, and removal of reference to red deer hybrids in favor of a prohibition of all cervid hybrids except for hybrids between Rocky Mountain Elk and Roosevelt Elk. Add a provision that any new permits issued involving elk be either exclusively for Rocky Mountain Elk west of the Cascades, and exclusively for Roosevelt Elk east of the Cascades.** - These rules would help to protect the wild population of deer and elk from genetic contamination with red deer or other forms of hybridization that would not occur in nature. There is a risk that genetic contamination of this kind would reduce the fitness of wild elk populations. The mechanism that produces risk is the introduction of maladaptive genes and traits into the wild elk population from animals not adapted to this area. The rules could help to preserve the genetic integrity of existing species and preserve the hunting, viewing, and existence values that the public places on cervids. In so doing, this rule change would preserve hunting license revenues to ODFW. There are exceptions to this rule if hybridization for scientific purposes is authorized as part of a license. There will be a negative financial impact on businesses that benefit from hybridizations prohibited by the rule change. If currently licensed cervid businesses have Rocky Mountain and Roosevelt Elk hybrids, they will be granted an exemption to the requirement that the permit be for either one or the other. New businesses applying for permits will be affected by this rule as they will lose financial opportunity that comes from holding hybrid elk if this rule is adopted. Without specific estimates of the benefit to cervid ranching operations from raising cervid hybrids, it is impossible to quantify these costs.

Rule change: **Maintain current ban on importation of live cervids, allow export, and importation of gametes and embryos** – There is no new fiscal impact to the cervid holding businesses due to the importation ban on live cervids, as the importation of live cervids was prohibited previously. The importation of gametes and embryos is a new

opportunity to increase genetic diversity within captive herds. The businesses that choose to import gametes and embryos will incur both the costs and the benefits of such importation. Reporting costs will be incurred, but the businesses might benefit financially from the increase of genetic diversity in the herd. Specific estimates of the magnitude of these benefits are not available. The ODFW incurs costs to verify the pedigree of the parents and to issue written approval before these gametes or embryos are used. Without specific cost estimates of genetic and disease monitoring, or benefit estimates to businesses of increasing herd diversity with these importations, it is impossible to quantify the magnitude of these effects to either businesses or to ODFW. There is a low risk of importing disease in gametes and embryos (Personal Communication, Colin Gillin, ODFW Wildlife Veterinarian). Therefore, there is not a significant fiscal impact on the public or on hunting and wildlife watching related businesses from importing gametes and embryos as there is low risk to the herd. Additionally, the license revenues ODFW collects from hunting are not likely to be impacted by the import of gametes and embryos. Disease importation is also a concern for the many businesses in the state that hold livestock that are susceptible to diseases. Prevention of disease importation and outbreak is critical to avoid a negative fiscal impact on these businesses. The size of the fiscal impact on these businesses is not known, as it depends on the circumstances and nature of a potential disease outbreak.

**Rule change: Change requirements for the reporting of and action in response to a release or an escape** - Existing rule language refers to a 'release' of cervids, so the rule change is proposed to refer to both released and escaped cervids to account for accidental release. The existing rule referred to the ODFW as the recipient of funds to capture or destroy any released cervid. The new rule will expand this to other Oregon state agencies should they become involved in the situation of an escape or release of a cervid.

The rule changes pertaining to release or escape of cervids might reduce costs for state agencies other than ODFW if they are involved in the capture of a cervid. Payments to other state agencies might defray costs that would have otherwise been paid to ODFW by businesses, or they might be additional. For this reason, it is difficult to determine the fiscal impact of this rule change on businesses. State agencies other than ODFW might collect revenues if they help with the capture of an escaped or released cervid. The previous law made no provision for the accidental escape of a cervid due to vandalism or other means, only the release of the animal. This rule change will hold a cervid business responsible for any unintentional escape as well as for any releases. There could be a cost associated with this rule change for small businesses as the license holders would be required to pay for capture of escaped as well as released cervids. Without specific information about the likelihood or circumstances of an escape such as location or terrain, it is impossible to quantify the magnitude of these costs to the licensees.

Released cervids could pose a threat of disease to existing wild populations. The proposed rules are designed to reduce the risk of disease and transference of disease to wild cervid populations. A disease outbreak would negatively impact hunters and wildlife watchers, as well as ODFW license dollars. The size of this potential impact is not known, as it will depend on the circumstances of the disease outbreak and its effect

on the herds as well as hunter response to any declining population numbers. Furthermore, businesses that hold livestock would incur a negative fiscal impact if a disease outbreak did occur. The size of the fiscal impact on these businesses is not known, as it depends on the circumstances of a potential disease outbreak.

**Rule change: Add a provision that the Cervid Disease Surveillance List (CDSL) be developed by the department's wildlife veterinarian and ODA.** - The current rule regarding the CDSL is not clearly written, and may not be interpreted as requiring much in the way of disease testing except on import. The new language more clearly requires disease testing of any held cervids whenever ODFW determines it is necessary under the CDSL that will be developed. At this point ODFW expects the new language and CDSL may tighten up disease testing requirements, but we are unable to predict how many additional tests for disease will be required until the new CDSL is actually developed.

**Rule change: Change requirements that all held cervid deaths be reported to ODFW and ODA within 24 hours of death regardless of cause. Furthermore, all deaths would require a necropsy, with the results reported to ODFW and ODA.** - The current rule allows those deaths due to "obvious non-disease related causes" to go without a necropsy. It allows 2 weeks to report any necropsy results to ODA, and requires reporting of the death and necropsy results in an annual report to ODFW. The rule change will require reporting of all cervid deaths to ODA and ODFW within 24 hours regardless of the cause. Department inspectors will then follow up on suspicious deaths. This rule change will increase costs to ODFW and ODA to process these reports of death and to follow up in a timely manner. ODFW funding for additional costs most likely will be from Other Funds sources such as hunting license and tag fees paid by those who hunt in Oregon.

Costs to cervid license holders apply for this reporting. This rule change will result in more necropsies since all animals must be tested for disease within the timeframe required by the CDSL. Since the cervid license holders incur costs from necropsies, this rule change will have a negative fiscal impact on cervid businesses. The size of this negative fiscal impact will depend on the size of the business and the age of the licensee's held cervids. Businesses have not provided specific information about these costs. Costs are likely to be around \$95 per necropsy, charges to dispose of a carcass are separate. (Personal communication, Colin Gillin)

The intent of this rule change is to protect the native cervid populations from a disease outbreak. The ODFW collects license revenues from hunting, while the hunting and wildlife viewing public benefits from healthy wild cervid populations. To the extent that this rule change protects those wild populations, there will be no negative fiscal impact on ODFW license and tag revenues if a disease outbreak is avoided. Hunters, wildlife viewers, and related businesses will benefit from the preservation of these wild populations. Since hunter reactions to reduced populations and the risk or severity of a disease outbreak may vary, it is difficult to quantify the financial effect of a potential disease outbreak on ODFW license sale revenues or on those businesses that benefit from hunting. Furthermore, businesses that hold livestock would incur a negative fiscal impact



if a disease outbreak did occur. The size of the fiscal impact on these businesses is not known, as it depends on the circumstances of a potential disease outbreak.

**Rule change: Add a provision for the genetic testing of fawns resulting from imported gametes and embryos. Require that any unauthorized cervids be disposed of at the licensee's expense. A provision is also proposed for ODFW-funded testing for genetic makeup at ODFW discretion. If an unauthorized cervid is found, the licensee must test all held cervids at her own expense.** - This rule change has a negative economic impact on ODFW because of the costs of monitoring and testing of cervid populations. If an unauthorized cervid is found, the cervid holder will incur costs to test all held cervids. The provision for genetic testing of fawns from gametes and embryos will have a cost to the licensee for the testing and possible disposal of the animal. Costs to test a fawn for red deer genes range from \$20 to \$150 per sample, and the range is dependent on the quantity of samples to be analyzed at once. (Personal communication, Colin Gillin.)

Protection of the wild cervid populations from hybridization will benefit those members of the public who prefer to hunt for native species, those who prefer to view the native species, and those who have an existence value for these native populations. Businesses which supply hunters and wildlife watchers will benefit economically from the preservation of these species in pure genetic form. Hunting license sales might also be affected, so there is a positive fiscal impact on ODFW revenues if uncrossed wild populations draw or retain license-buying hunters. The scale of these benefits to hunters, wildlife watchers, ODFW license sales, and the businesses that support these groups will be dependent on the extent of genetic contamination and the reaction of hunters and wildlife watchers to such contamination.

**Rule change: Prohibit any holder to possess a live wild native cervid unless expressly permitted by ODFW.** - The previous rule language specified that a person may not possess a live wild native cervid unless expressly permitted by the department. This rule change ensures that organizations may not possess cervids without a permit. This could have a negative fiscal impact on any organizations that might hold cervids for financial gain. There are currently no organizations that hold cervids without a permit from ODFW, so only those who would potentially hold a cervid would be fiscally impacted. The size of this impact would depend on the size of the organization, the profitability of holding cervids, and the costs of doing business. Information about the annual financial gains from cervid businesses is not available at this time.

**Rule change: Simplify text pertaining to the decision to issue a Cervid Propagation license and add a clause that allows for a contested case hearing if the licensee disagrees with the department's decision not to issue or renew a cervid license.** - Administrative costs to conduct a renewal hearing would apply for ODFW if renewal is contested. This might have a positive economic impact on a business that successfully contests a case.

Rule change: **Change rule to suspend, revoke, or prohibit renewal of a cervid license if a licensee, employees, or officers commit a wildlife crime.** - The purpose of this rule change is to protect licensees from license suspension or revocation if a wildlife crime occurs on their property without their knowledge. This will have a positive fiscal impact for cervid-holding businesses as it will protect against business loss in case of a trespassing situation or other situation outside of the licensee's control. The size of this impact would depend on the size of the business, the profitability of holding cervids, and the costs of doing business. Information about the annual financial gains from cervid businesses is not available at this time.

Rule change: **Extend the period for cervid disposition upon license suspension, revocation, nonrenewal, or denial. Allow the ODFW to require that cervids to be disposed of are held on holder's property and provide that the department incur no liability for expenses as a result of this requirement.** - It is being proposed that the period of time for disposal of animals on a decommissioned ranch be extended from 60 to 90 days. This will take some of the pressure off businesses as they decommission. It is possible that the extra time will result in some cost-savings for businesses. For example, the 30 extra days to dispose of the animals might reduce the need for staff overtime to handle decommissioning and animal disposal in the shorter period of time. The magnitude of this cost savings depends on the pay rates of staff, number of cervids to be disposed of, and circumstances at the time, and is not available at this time. Cost savings will apply for ODFW under this rule change, as it may have previously been financially responsible for the costs of holding cervids prior to disposition.

Rule change: **Add a provision for the control of disease outbreaks.** -- If a licensee's cervids pose an imminent threat to public health, livestock, or wildlife, this rule requires the licensee to implement ODFW direction promptly. If the licensee fails to implement department direction, ODFW may enter the facility and take necessary action. The licensee will be responsible for expenses to the state of Oregon that accrue because of inaction. Businesses will incur costs for ODFW to enter the facility at a time when cervids are threatening public health, livestock, or wildlife. Compliance with ODFW direction at such time might also have a cost. The magnitude of these costs is not known because it will depend on the circumstances, the size of the facility, and the number of animals to be controlled. To the extent that these provisions will protect wild native cervid populations, there will be a positive fiscal impact or an avoided negative fiscal impact on businesses which serve hunters and wildlife-viewers and a benefit for those who participate in those activities. The magnitude of these benefits is not predictable, as it depends on variables such as hunter response to a disease outbreak and the severity and type of outbreak. Similar uncertainties might apply in a genetic contamination situation. Furthermore, businesses that hold livestock would incur a negative fiscal impact if a disease outbreak did occur. The size of the fiscal impact on these businesses is not known, as it depends on the circumstances of a potential disease outbreak.

**Rule change: Clarify some aspects of the rules on standards for keeping captive cervids.** - It is being proposed that the rules be changed to clarify that it is not necessary for an inspector to be able to see all cervids held by a licensee from one location. A clarification is added that animal handling facilities do not need to be sized so that all animals can be quarantined in one place at one time. Additionally, statutes are referenced that govern offenses against animals and confined animal feeding operations. There is no fiscal impact on state agencies, the public, or businesses from this rule change. It is simply a clarification.

**Rule change: Update rules about sale or exchange of cervids to allow exchange of live animals, gametes, or embryos between licensed facilities in Oregon. Also, export of live animals, gametes, and embryos to legal facilities in other states is permitted.** – This is a clarification of previous rules with a new provision for gametes and embryos. Costs would apply to the licensee and to ODFW if requirements are put into place monitoring the genetic makeup of these animals. Licensees can benefit financially from the trade of cervids among themselves, but the magnitude of such benefit is not known. It will depend on particular circumstances of each trade. Costs would not be incurred by the public, hunters, or to hunting-related businesses for this rule change, as it doesn't involve the import of outside cervids or increased disease or hybridization risk.

### **PROVISIONS SPECIFIC TO TYPE I LICENSES**

**Rule change: Specify three classes of Type I licenses. Current holders will be allowed to keep species previously held by Type I licenses. The proposed limit on commercial or non-zoo exhibition licenses is 16, and licenses for scientific or educational purposes will be approved on a case-by-case basis. Facilities that perform department-authorized research or conservation projects will also be granted Type I licenses.** - This rule change will have no fiscal impact on existing licensees. Businesses which may seek to acquire a Type 1 cervid license in the future might lose financial opportunity if the license cap is reached. The magnitude of this financial opportunity depends on market and other economic circumstances that will prevail at that time, and is difficult to quantify. Aside from the limit of 16 commercial or exhibition cervid licenses, this rule change represents no change from the current status quo. The cap of 16 Type-1 commercial licenses caps the amount of money ODFW spends to administer licenses. Since this existing provision is already in effect, there is no fiscal impact of the cap on the public.

The proposed rule change will not require that scientific or educational facilities be accredited by the Association of Zoos and Aquariums. The current rule requires the facility at least to meet this organization's requirements. This might have a positive fiscal impact on any businesses that seek scientific or educational permits but are not accredited. The size of this impact would depend on the size of the business, the profitability of holding cervids, and the costs of doing business. Specific information about the annual financial gains from cervid businesses is not available to ODFW at this time and was not provided by members of the CRAG. Because ODFW does not have complete data on the size, level of capitalization, current and expected revenues, or cost

structure of existing private cervid ranching operations, it is difficult to assess how significant the costs of the proposed rules discussed in the following sections are to the affected businesses. Therefore we are unable to describe precisely the degree of financial significance to specific businesses associated with adoption of the proposed rules. We attempt to indicate where we believe costs will be incurred that may be significant.

To provide an idea of the scale of cervid businesses, it helps to have an estimate of the value of each animal. A recent liquidation of a cervid inventory yielded an average of \$3772 per bull elk sold. The minimum price was \$400, and the maximum price was \$22,000. Cows are likely to be sold for considerably less. This is intended to be a starting point to understanding the scale of the business. Actual values of deer or elk would depend on the age and condition of the animals. Operation costs and market conditions also influence the profits realized by cervid ranchers. Full information on all aspects of cervid businesses is not available.

**Rule change: Update the rule pertaining to the lottery system** – The only change to this rule will be that it is updated to reflect the three categories of Type 1 cervid licenses. There is no fiscal impact to this rule change to businesses, state agencies, or the public because previous licenses were allocated by a lottery system.

**Rule change: Update rules regarding license renewal to include a requirement that licensees must note changes that have occurred since the last application on the form. Renewal requirements will remain the same.** – This rule change will have costs to ODFW to review renewal applications that outline changes to the ranch that have occurred since the last application. Licensee businesses will also incur costs to report details about their operations on the license form. The amount of these costs will depend on the complexity of any licensee operations changes and is not known at this time. By making information about the cause of death known to ODFW, diseases may be detected and tracked. To the extent that these provisions will protect wild native cervid populations, there will be a positive fiscal impact or an avoided negative fiscal impact on businesses which serve hunters and wildlife-viewers and a benefit for those who participate in those activities. The level of these benefits is not predictable, as it depends on variables such as hunter response to a disease outbreak and the severity and type of outbreak. Furthermore, ODFW, ODA, and businesses that hold livestock would incur a negative fiscal impact if a disease outbreak did occur, both for lost hunting activity and for costs of dealing with the outbreak. The size of the fiscal impact on these entities is not known, as it depends on the circumstances of a potential disease outbreak.

**Rule change: Record keeping requirements will include cause of death reporting.** – ODFW will not require a standard form of record-keeping, just that records be accurate and readable. Increased costs will apply to licensees and ODFW for this reporting requirement as it will slightly increase paperwork. Costs of adding a cause of death represent only a small increase in the overall requirements, and can likely be absorbed by ODFW's existing staff time. Magnitude of the costs of this reporting requirement for businesses cannot be quantified as some businesses might already keep track of the cause

of death. If requirements for disease testing of deceased cervids are implemented, there will already be a cause of death report.

**Rule change: Inspection requirements will remain the same. –**

This will have no fiscal impact on state agencies, businesses, or the public because there will be no change to current requirements.

**Rule change: Add a calving report to the annual report required for license renewal. The annual report would be required by January 31 for the January through December of the previous year.-** Additional staff time will apply to both businesses and to ODFW to report on and review calving reports. It is likely that, for ODFW, this will be absorbed into existing staff time. However, businesses have expressed concern at the requirement of a calving report as it occurs during hay season, a particularly busy time of year for springtime repairs and hay storage. Costs will apply at this time for employee overtime to complete calving reports. Information on the magnitude of these costs depends on business operations of the licensee, and is not available.

**Rule change: Require double fencing at the perimeter of elk facilities of Type I cervid license holders. It is also proposed that requirements be clarified for fencing overlap, fence post spacing, water gaps, and stream crossings. –** The double fencing requirement is intended to prevent nose to nose contact between captive and wild cervids. Two diseases that can be transmitted this way are bovine tuberculosis (Tb) and Chronic Wasting Disease (CWD), and both can be devastating to cervids. It is also possible for CWD to be transmitted through indirect means such as animals licking post or fence material. The double-fencing requirement is meant to prevent this transmission. A disease outbreak's consequences are outlined below in this section. As the name implies, bovine tuberculosis is dangerous to domestic livestock and poses a threat to businesses.

While this rule change may have a significant cost to those operations that hold cervids and have not already installed double fencing, it is thought that this is the most cost-effective means of controlling a disease since the costs of mitigating a disease outbreak would be quite high. Costs to businesses apply for fencing, materials, and labor. It might also be possible to utilize a double fence with an electric component. Many business owners believe that electric fences are costly and difficult to maintain. ODFW staff have estimated the cost of materials at \$15,467.34 per mile along with a labor cost of \$10,000 per mile. This cost estimate assumes simple, flat terrain without any hills, rocky land, or waterways. Estimates for materials and labor were developed by staff after contacting fencing contractors. The CRAG members did not provide specific estimates of costs for double fencing or meeting the other new requirements.

Another possibility for fencing is to require an exterior electric fence. Here, materials costs are slightly less expensive at \$10,250.94 per mile, but labor costs are more expensive at \$15,000 per mile for installation. Neither of these estimates takes into

account costs of fence upkeep, which can be significant, especially with electric fencing. Both estimates are for simple terrain with no waterways.

In addition to the double fencing requirements, changes are being proposed to the requirements for existing fencing. These include a requirement that fence material must be overlapped by one row if more than one width of material is required to meet the fence height. Further requirements are being proposed for fence spacing. The spacing for T posts is being recommended at 16.5 feet. The current rule requires that watergaps and stream crossings prevent egress and ingress at high water. A part of the proposed rule change is that watergaps and stream crossings prevent ingress and egress at all water conditions. If facilities currently do not have these required standards in place, costs might apply to these businesses to bring fencing into compliance. The magnitude of this cost is not known, because businesses might already have facilities that comply, and some might not. Costs will depend on the unique terrain and situation of each business.

Since the double fencing and the changes to the water crossing requirements are new, it is being proposed that licensees be given three years to comply with requirements. This might mitigate the negative fiscal impact slightly by distributing the costs over three years. The costs of the fencing are still quite high in relation to the business operations of many licensees. One member of the CRAG stated that double fencing will put his operation out of business. As indicated earlier in this analysis, ODFW does not have sufficient information to assess the circumstances of this CRAG member or other cervid ranching operations regarding whether or not the proposed rule would cause the closure of their businesses. Nor are we able to determine how many cervid ranching businesses would be so affected.

Insofar as it will interfere with elk viewing, double fencing requirements can affect tourism in the area and associated businesses that benefit from that tourism. Revenue estimates from tourist business are not known, so it is difficult to state how much will be lost if tourism to elk ranches is reduced or eliminated. Without specific financial details of licensee's businesses, it is difficult to know the amount of fiscal impact of the loss of these businesses.

On the other hand, a potential disease outbreak can be very costly to Oregon's wildlife resources, ODFW license sales, the hunting and wildlife viewing public, and businesses which support them. As outlined at the beginning of this document, big game hunters and wildlife watchers spend an annual amount of \$228.2 million and \$776.4 million respectively. A portion of the wildlife watching expenditures can be attributed to big game. In 2007, hunting license and tag sales driven by deer and elk hunting totaled \$17,541,811 in revenues to ODFW /1. Because of previously outlined uncertainties about the risk of outbreak, potential resulting disease mortality, and hunter reaction to reduced populations, it is difficult to quantify how much of this revenue would be lost in the event of a genetic hybridization or disease event. In summary, the benefits of healthy wild populations of deer and elk are experienced by many businesses and outdoor enthusiasts.

Under this rule change, costs of disease prevention will fall on the cervid ranching businesses. Exactly how significant these costs will be depends on the size, scope of operations, level of capitalization and ongoing revenues of these businesses.

Since hunter reactions to reduced populations and the risk or severity of a disease outbreak may vary, it is difficult to quantify the financial effect of a potential disease outbreak on ODFW license sale revenues or on those businesses that benefit from hunting. Furthermore, businesses that hold livestock would incur a negative fiscal impact if a disease outbreak did occur. The size of the fiscal impact on these businesses is not known, as it depends on the circumstances of a potential disease outbreak.

Finally, it seems reasonable to pose the question again about who should bear the risk of incurring the potential costs of disease being transferred from privately held cervids to Oregon's wild cervid populations? Cervid ranching operations and associated businesses, or Oregon hunting license and tag buyers and the businesses they support?

**Rule Change: Change requirements for cervid tag marking to require two ear tags marked with licensee's name, address, and phone number. Tags must be added within 14 days of birth and reported on the calving report. Lost tags must be replaced within 30 days of loss, and transfer permits must report the tag number of permits being transferred. Tags must also comply with any ODA regulations. -**

There will be a cost to licensee businesses to comply with these requirements. It is difficult to estimate the costs both present and future of this rule change. It will depend on the size of the facility, the number of animals held, and the change necessary from current business practices. This rule change has a potential to save costs to ODFW or other state agencies who might participate in the search for an escaped cervid. At that time, it will be critical to either track it with a radio receiver or to clearly identify the animal from any wild herd. Timely removal of escaped animals could be important to maintain healthy wild populations and all the benefits from these to wildlife enthusiasts, ODFW license dollars, and businesses that serve wildlife watchers and hunters. Additionally, businesses that raise livestock will be protected from financial harm if an escaped cervid happens to bring a disease to those operations.

**Rule Change: Add a transport license that would be required for any transport of cervids between facilities. –** This requirement would increase costs to licensee businesses for reporting of transport. If there is a cost to a transport license, revenues would transfer from cervid businesses to ODFW. ODFW might collect any revenues from transport licenses, but would also incur costs in staff time to review these. It is likely that these costs would be absorbed by existing staff at ODFW. The magnitude of costs to businesses is not known, business sizes and situations vary. These licenses are intended to provide ODFW with information about the movement of captive cervids between licensees in case of a disease outbreak. To the extent that these provisions will protect wild native cervid populations, there will be a positive fiscal impact or an avoided negative fiscal impact on businesses which serve hunters and wildlife-viewers and a benefit for those who participate in those activities. The level of these benefits is not predictable, as it depends on variables such as hunter response to a disease outbreak and

the severity and type of outbreak. Furthermore, businesses that hold livestock would incur a negative fiscal impact if a disease outbreak did occur. The size of the fiscal impact on these businesses is not known, as it depends on the circumstances of a potential disease outbreak.

**Rule Change: Requested changes to licenses are proposed as follows: 21 days advance notice is required for address changes, but department approval is not necessary. A change in a licensee, owner, or facility location is a major change in license status, and it is being proposed that the Oregon Fish and Wildlife Commission consider these changes on a case-by-case basis.**

These requirements will have a negative fiscal impact on ODFW operations as commission resources will be used to make determinations about the status of license changes. The fiscal impact of this rule to cervid holding businesses would be that some processes, such as moving, might be slowed by the 21 days advance notice requirement. The size of these impacts depends on the circumstances of the move or license change such as the size of the facility or complexity of the request.

**Rule Change: Add a requirement that facility fences be maintained to exclude wild cervids from an area inhabited by captive cervids for at least one year post-decommissioning.** – This rule change is intended to prevent the transmission of disease to outside cervids that might come into contact with surfaces of the previous cervid facility. Diseases such as CWD can be infectious for a period of up to 2 years after infected cervids have been removed. Costs might apply to businesses that wish to decommission a ranch quickly for liquidation of assets such as land. The requirement that the area remain fenced off for a period would limit options for potential purchasers of that land and possibly the selling price. To the extent that these provisions will protect wild native cervid populations, there will be a positive fiscal impact or an avoided negative fiscal impact on businesses which serve hunters and wildlife-viewers and a benefit for those who participate in those activities. The level of these benefits is not predictable, as it depends on variables such as hunter response to a disease outbreak and the severity and type of outbreak. Furthermore, businesses that hold livestock would incur a negative fiscal impact if a disease outbreak did occur. The size of the fiscal impact on these businesses is not known, as it depends on the circumstances of a potential disease outbreak.

## OTHER ISSUES

**Exempt Starkey experimental research facility from requirements of double fencing or other Division 049 provisions.** - There are some options with regard to the application of these cervid holding rules to the state-run Starkey Experimental Forest. Costs to ODFW could apply if double fencing is to be implemented at this facility. Another possibility is that the United States Forest Service would cover some of these costs. There are 27 miles of perimeter fence at the facility, and costs to double-fence it would be around \$702,000. Costs to ODFW to implement all other proposed



requirements are also likely to be significant. A rule change is being proposed to allow the ODFW director to exempt state personnel holding cervids from the wild from Division 49 requirements on a case-by-case basis. Current rule exempts public employees, and as a result Starkey, from Division 49. In practice, current Division 49 rules have been followed at the facility.

There is a proposed deletion from division 45 of cervid-related definitions that have been addressed in division 49 or which simply are no longer helpful. Also, the package will include amendment of the sale of elk meat rule in division 200. This amendment removes a reference to a statute that sunset last month. There is no fiscal impact to any parties from these housekeeping changes.

Most businesses affected by these rules are believed to be "small business."

The rules are believed to be fully compatible with legislative direction on the goals of wildlife management in Oregon.

We do not believe that a less intrusive or less costly alternative adaptation to only small business is consistent with the purpose of the rule.

#### References:

Cervid Rule Advisory Group (CRAG) meetings and statements on fiscal consequences of proposed rule changes, April 18, 2007 to present.

U.S. Fish and Wildlife Service. 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation - Oregon. 2003.

U.S. Fish and Wildlife Service. 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. 2007.

Oregon Department of Fish and Wildlife. Unpublished Analysis of Hunter Expenditure Data Collected from Hunters on the Starkey Experimental Forest, 1989 – 1991.

Personal communication: Colin Gillin, Wildlife Veterinarian, Oregon Department of Fish and Wildlife.

#### Footnotes

1/ The method for calculating this number came from adding the total tag revenue attributable to deer and elk, the total controlled hunt application revenue that came from deer and elk, and the following sum:

Total license revenue attributable to wildlife x [(Revenue from deer and elk controlled hunt applications + Revenue from deer and elk tag purchases)/(Total revenue from controlled hunt applications + Total revenue from all tag purchases)]