

Elk Restoration Operational Plan

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Submitted By

Bureau of Wildlife Resources

Introduction

Recently, several states (e.g. Kentucky, Tennessee, and Wisconsin) have reestablished elk herds where populations once thrived but were extirpated for one reason or another. Following Kentucky's elk restoration in counties adjacent to Southwest Virginia during 1997-2002, several elk have taken up residence in the state. At the August 17, 2010 Board meeting following public input on a draft elk management plan, DGIF staff recommended restoration of elk in Wise, Dickenson, and Buchanan counties relying upon immigration of elk from Kentucky, and not translocation of elk into the state. At that meeting, the Board of Directors amended the staff recommendation and directed staff to translocate not more than 75 elk to a suitable release site in Buchanan County. Staff has subsequently prepared this operational plan to accomplish that directive. Table 1 presents a list of activities and costs of elk relocation over the next two-year period.

Before the capture and release of elk in the restoration area, staff must take several actions to assure a successful relocation effort. These tasks have both administrative and technical elements.

Pre-Trapping Activities

Coordination with Kentucky Department of Fish and Wildlife (KDFWR)

Staff has begun consultations with KDFWR staff about details of elk capture and relocation, including care of elk during quarantine. Kentucky plans to construct a quarantine facility, and has requested both the Missouri Department of Conservation and (MDC) and Virginia Department of Game and Inland Fisheries (VDGIF) to share the construction costs. Virginia's share of this expense is estimated at \$20,000, which is expected to be incurred in November 2010. Kentucky will also request reimbursement for their expenses to help capture elk and care for elk in quarantine. These expenses would be incurred during the winter of 2011-2012. Other topics being discussed include the timing of elk trapping relative to constraints imposed by elk biology, Kentucky hunting seasons, and Virginia Department of Agriculture and Consumer Services (VDACS) quarantine requirements. Staff will send by November 2010 a formal request to KDFWR for up to 75 elk to be obtained in late 2011 or early 2012, as well as access to all test records and necropsies for the source herd for at least the previous five years.

Coordination with VDACS

Staff has begun consultation with the Virginia State Veterinarian's office to determine conditions under which wild elk could be relocated to Virginia. Staff has developed this operational plan based on these preliminary opinions by the State Veterinarian:

- No elk may be imported into Virginia from the Greater Yellowstone Area
- No elk may be imported into Virginia from areas within 100 miles of a positive case of tuberculosis in another species within the last five years

- No elk may be imported into Virginia from populations that have had herd additions from sources other than monitored or accredited herds within five years of importation
- No elk may be imported into Virginia from herds that have been source animals for other populations that have been diagnosed with bovine tuberculosis, brucellosis, or possibly other diseases
- Elk may be imported into Virginia only if they are quarantined for minimum of 93 days in the state of origin with no contact with animals that are not to be included in the importation
- Elk may be imported into Virginia only if they are examined by an accredited veterinarian stating that a visual exam of all animals did not reveal any signs of disease
- Elk may be imported into Virginia only if they have negative disease tests that include two TB SCTs at least 90 days apart, a blood TB test at the time of the first SCT, and two brucellosis tests at least 30 days apart, one of which is within 30 days of movement

Staff has also communicated with Missouri wildlife staff to compare and contrast the conditions set forth by their state veterinarian and see if other measures are worth considering. For example, in addition to tests for brucellosis and tuberculosis, we may consider a requirement for elk to be tested for CWD using rectal mucosa-associated lymphoid tissue biopsy. Based on our knowledge of current conditions in Kentucky, staff believes that elk from southeastern Kentucky will meet importation criteria that are likely to be set by the Virginia State Veterinarian's office.

Evaluation and Selection of Release Site

Staff has started consultations with Buchanan County officials, corporate landowners, and others to evaluate opportunities for elk relocation to Buchanan County. Staff is continuing to evaluate potential release areas and will select a release site this winter, if one is suitable. A suitable site is defined as cooperatively-managed properties of sufficient size to provide for the food and other needs of released elk throughout the year. The area must also allow controlled access for protection of the elk from disturbance and for public enjoyment of the elk resource.

Given that a suitable release site can be found in Buchanan County, staff will work with landowners in the release area to establish cooperative agreements securing VDGIF access to properties for elk management, including habitat management. Public access to elk for hunting opportunities and viewing will also be a factor in these negotiations. These cooperative agreements should be in place by April 2011. Costs associated with these activities are estimated at \$250.

Creation of Elk Working Group

Community support is essential to a successful elk relocation effort. Staff will create an Elk Working Group composed of stakeholders that represent landowners, hunters, farmers, and government and non-government organizations. Under the leadership of staff, the Elk Working Group will identify and consider elk management issues. One of the first tasks of the Elk Working Group will be to establish a protocol to effectively respond to elk damage complaints. Staff will issue invitations to potential stakeholders

in November and hold the first Working Group Meeting in March 2011. Costs associated with these activities are estimated at \$750.

Elk Population Survey

During the winter of 2010-2011, staff will conduct aerial and ground surveys for elk at various locations in Buchanan, Dickenson, and Wise counties. Habitats around suitable release sites in Buchanan County will receive particular attention during surveys. Weather conditions and other logistical constraints will determine exact dates, areas, and number of hours of survey time. The cost of flight time for this survey is estimated at \$9,000.

Habitat Improvement in Release Area

Staff will begin habitat improvement projects in the release area in May 2011. In addition to providing high quality forage to elk, these plots may encourage elk to remain close to desired release areas rather than disperse to less desirable locations. Improvements to elk meadows, such as addition of soil supplements to promote elk forage, will be essential to holding elk in the release area. Other improvements could include the creation of water sources and planting of forage crops. Staff will hire contractors to improve habitats on lands managed under cooperative agreement with private parties, with the goal of improving 40 acres of elk habitats in May 2011 and again in May 2012. The cost of this work would be \$40,000 over the two-year period.

Hiring Additional Staff

Staff will request positions in January 2011 for an Elk Project Biologist and an Elk Project Technician, with the goal of filling both by July 2011. The Elk Project Biologist will lead elk restoration activities, while technical staff will coordinate elk habitat improvement projects and help the elk biologist with radio telemetry, disease monitoring, and nuisance elk response. By November 2011, all elk project staff (as well as the newly-hired VDGIF veterinarian) will receive training to use Schedule II drugs for elk immobilization. Also, staff will request another law enforcement position in the Elk Restoration Area (Wise, Dickenson, and Buchanan counties), with the goal of placing an officer in the Academy beginning March 2012. This officer will help to protect the elk herd from illegal hunting and assist in nuisance elk response. Increasing staff resources and training in FY 2012 would cost \$104,300.

Purchase of Equipment

Staff will purchase a variety of equipment for the elk restoration projects in the next two years. These purchases include telemetry equipment, elk capture equipment, elk transport equipment, and an elk holding facility in Virginia.

Staff will construct by May 2011 a portable elk corral trap to help capture elk in Kentucky. Staff will procure materials for the trap and build it. The cost estimate is

\$17,000. This trap will be used to help capture elk in Kentucky, as well as for elk management activities later in Virginia. Staff will hire a contractor to build an elk holding facility at the release site, which will be used to temporarily hold and “soft release” the elk. The estimated cost for this facility is \$20,000.

Staff will purchase two pick-up trucks and an elk transport trailer by July 2011 for use by the elk project staff. Estimated cost of this equipment is \$75,000. Other equipment with an estimated cost of \$20,000 must be purchased to outfit these two new employees.

These purchases also include radio collars and other telemetry equipment. Radio transmitters will likely be satellite collars and will require a lead time of several weeks to build and ship prior to deployment on elk during the winter of 2012. Orders for this equipment should take place no later than August 2011 to allow the telemetry manufacturer adequate time to build collars to specification and ship them to Virginia. Estimated cost of 25 collars is \$125,000.

Collaboration with Partners

Staff has begun collaboration with partners to help in the funding and staffing of the elk project. This assistance could be in the form of payments for project equipment or services, as well as volunteers to help with nuisance elk response and other activities.

Rocky Mountain Elk Foundation

The Rocky Mountain Elk Foundation (RMEF) continues to communicate with VDGIF to support the restoration pilot project. RMEF staff has worked with local sportsmen to establish a new chapter, the Southwestern Virginia Chapter of RMEF. Once our operational plan is completed and budgets are detailed, RMEF will determine what type of support they can provide. DGIF is seeking both financial and volunteer support from RMEF.

Appalachian Wildlife Foundation

VDGIF is in the process of entering into a memorandum of understanding (MOU) with the Appalachian Wildlife Foundation (AWF). The AWF is a tax exempt organization seeking opportunities and finding solutions for restoring wildlife and wildlife habitat in the Appalachian states, particularly elk. The MOU will acknowledge the intentions of VDGIF and AWF to establish a framework for cooperative efforts and funding to reintroduce elk in southwestern Virginia. The AWF has indicated in the MOU that they will provide to the Department a minimum of \$50,000 for the actual capture, disease testing, transport, radio collaring, and initial monitoring of elk in Virginia.

Trapping and Relocation Activities

Capture and Quarantine in Kentucky

Staff will observe elk trapping, quarantine, and transport operations in Kentucky this winter as MDC initiates elk restoration in Missouri. This will give staff the opportunity to learn elk handling techniques, as well as to observe the success of MDC's strategy to carry out a 93-day quarantine with minimal mortality. Given that elk capture in Kentucky cannot begin before the middle of January due to firearms elk hunting in December, a 93-day quarantine could result in the transport of elk during late April or early May when temperatures will stress animals, particularly pregnant cows nearing parturition.

During the winter of 2011-2012, staff will assist KDFWR in the capture of elk for release in Virginia. Capture location and quarantine facility location may be different dependent on unforeseen circumstances, especially elk herd behavior before and during trapping. Staff will either rent or borrow additional equipment to move elk from the capture location(s) to the quarantine facility. Substantial VDGIF and KDFWR staff time will be required to care for elk in quarantine, but how much time is difficult to predict. The cost estimate in this plan is \$1,500 per elk to cover trapping, transport, quarantine, and veterinary costs. Staff will have a better estimate of these expenses after observing MDC operations this year. Our current cost estimate for 75 elk is \$112,500. Reimbursement to KDFWR for their expenses in this project is part of this per animal expense.

Translocation to Virginia

Following the quarantine period in Kentucky, staff will transport elk to Virginia and place them in a "soft release" pen for a several week period. This will hopefully reduce unwanted dispersal from the site upon release from the holding pen. Staff and volunteers will care for the elk before release. Moving elk to Virginia will cost an estimated \$2,000.

Release and Monitoring Activities

Monitoring Use of Habitat

Staff will use radio telemetry on 25 elk to observe elk movements following release. Once the released elk establish a pattern of habitat use, staff can adjust management activities such as habitat improvement and protection from poaching to benefit elk. Staff will monitor elk that disperse from the release area in order to quickly identify and address any nuisance problems that develop.

Staff will work with local government officials and elk volunteers to establish a quick and effective response to reports of property damage by elk. Staff will work through the Elk Working Group to identify and improve any deficiencies in the damage control program.

Monitoring Elk Diseases

Under conditions set by the State Veterinarian, staff will necropsy and test all located natural or road-kill mortalities and a number of hunter harvested animals for tuberculosis, brucellosis, and CWD for at least five years after translocation. This work will be directed by the staff veterinarian and coordinated with the State Veterinarian's office and the Southeastern Wildlife Disease Study at the University of Georgia. Monitoring elk diseases during the planning period will cost an estimated \$2,000.

Summary

This operational plan guides staff activities to implement an elk restoration program in Buchanan County as directed by the Board on August 17, 2010. Staff has already started working with other organizations to translocate elk to Virginia during the winter of 2011-2012. The estimated out-of-pocket cost in FY 2011 to prepare for the importation of 75 elk to the state is \$66,500. The estimated out-of-pocket cost to complete preparations for and to translocate 75 elk to Virginia in FY 2012 is \$481,300.

Table 1. Schedule of Activities and Estimated Implementation Costs

Jobs	Completed By	FY 2011 Estimated Cost¹	FY 2012 Estimated Cost
FY 2011			
Determine importation requirements with State Vet	Oct/2010		
Submit final operational plan to Board	Oct/2010		
Establish working group	Nov/2010		
Request 75 elk from KDFG	Nov/2010		
Evaluate potential release areas	Dec/2010		
Select release area (if suitable site available)	Dec/2010		
Make payment on quarantine facility in KY*	Dec/2010	\$20,000	
Conduct aerial / ground elk surveys in 3 counties	Feb/2011	\$9,000	
Hold first working group meeting	Mar/2011	\$250	
Establish cooperative agreements with landowners in release site*	Apr/2011	\$250	
Construct portable elk corral trap	May/2011	\$17,000	
Habitat improvement work in release area (contract)	May/2011	\$20,000	
FY 2012			
Hire elk biologist*	Jul/2011		\$52,700
Hire elk technical staff (for nuisance elk and telemetry work)*	Jul/2011		\$38,350
Provide equipment for elk biologist*	Jul/2011		\$60,000
Provide equipment for elk technician*	Jul/2011		\$35,000
Hold second working group meeting	Sep/2011		\$250
Construct holding facility at release site*	Nov/2011		\$20,000
Purchase radiotelemetry equipment*	Nov/2011		\$125,000
Train elk management staff (and vet) in elk handling techniques	Nov/2011		\$500
Capture elk and move to quarantine facility*	Jan/2012		\$112,500
Hire law staff*	Mar/2012		\$12,750
Hold third working group meeting	Mar/2012		\$250
Move elk to holding facility at release site*	Apr/2012		\$2,000
Habitat improvement work in release area (contract)	May/2012		\$20,000
Release and monitor elk*	May/2012		\$2,000
*Assuming a suitable release site found			
Total		\$66,500	\$481,300

¹Costs are out-of-pockets costs and do not include staff time