



State of Washington
DEPARTMENT OF FISH AND WILDLIFE

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October 31, 2020

The Honorable Christine Rolfes
Chair, Senate Ways and Means
303 John A. Cherberg Building
Post Office Box 40466
Olympia, WA 98504-0466

The Honorable Timm Ormsby
Chair, House Appropriations
315 John L. O'Brien Building
Post Office Box 40600
Olympia, WA 98504-0600

The Honorable Kevin Van De Wege
Chair, Senate Natural Resources and Parks
212 John A. Cherberg Building
Post Office Box 40466
Olympia, WA 98504-0600

The Honorable Brian Blake
Chair, House Ag. and Natural Resources
437A Legislative Building
Post Office Box 40600
Olympia, WA 98504-0600

Dear Chairpersons Rolfes, Van De Wege, Ormsby, and Blake:

I am writing to provide you with the Washington Department of Fish and Wildlife (WDFW) and Washington State Department of Transportation's (WSDOT) report to the legislature regarding the Elk Herd Management Pilot Project (Pilot Project). Per RCW 77.36.190, WDFW and WSDOT are required to submit a report to the legislature summarizing the findings from the Pilot Project, including the following:

"Consistent with RCW 43.01.036, the department and the department of transportation must report the results of the pilot project to the appropriate committees of the legislature by October 31, 2020. Along with the results, the departments must report on how the information gleaned from the pilot project will be used to manage the Colockum elk herd and other similarly situated elk herds in the state."

The attached report provides background on the Pilot Project, restates the Pilot Project objectives, explains the Pilot Project process and participation, summarizes the tools tested to manage the Colockum elk herd, and describes lessons learned from the Pilot Project. An appendix to the report includes meeting notes taken during the four Pilot Project meetings.

One of the policy goals of the Pilot Project was to develop lessons learned and apply those lessons to address similar issues with other elk herds in the state. This goal is well-intentioned, and several of the lessons learned are transferrable to other elk herds, but the lessons from the Pilot Project cannot be transferred wholesale to another part of the state.

Successes during the Pilot Project were context- and herd-specific. The details of the Pilot Project dictated the appropriate wildlife conflict management strategy, stakeholder forums, and transportation solutions. Differences with land ownership, geography, and local stakeholders in the Colockum area, compared to other parts of the state, requires carefully tailored solutions to elk issues specific to each local situation. That said, the pilot did identify several lessons learned that could be applied more broadly to other herds in the state:

- Meetings should engage local elected officials and include a focused group of local stakeholders, agency subject matter experts, and affected tribes.
- Projects of this scope should span multiple seasons, allowing officials to evaluate different management approaches and assess their efficacy.
- Funding to hire new staff and/or deploy deterrents increases the chances of success and capacity of agencies.
- Outreach and education to new landowners, even those not directly involved in the pilot, helped expand the reach of efforts like attempting to reduce and eliminate feeding that kept elk in the local area.

All in all, the Pilot Project was a success in that it allowed the local community, WDFW, and WSDOT to trial and implement solutions to effectively manage the Colockum Elk Herd, while also identifying some important lessons for that specific herd, as well as lessons to apply to other herds across the state.

If you have any questions or concerns regarding this report to the legislature, please feel free to contact Tom McBride, WDFW's Legislative Director, at (360) 480-1472.

Sincerely,



Kelly Susewind
Director

Elk Herd Management Pilot Project Summary Report

Washington Department of Fish and Wildlife (WDFW)



October 31, 2020

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Individuals who need to receive this information in an alternative format, language, or who need reasonable accommodations to participate in WDFW-sponsored public meetings or other activities may contact the Title VI/ADA Compliance Coordinator by phone at 360-902-2349, TTY (711), or email (Title6@dfw.wa.gov).



Background

The Colockum elk herd range is primarily north of Interstate 90 (I-90), west of the Columbia River, east of highway US-97, and south of the developed areas of Wenatchee, Cashmere, and surrounding Kittitas County (Figure 1). The herd is largely migratory, using higher elevations to the west from late spring through fall and lower elevations to the south and east from late fall through early spring. There are no elk fences to prevent elk movements into the Kittitas valley or across local highways and I-90. However, WDFW's radiotracking data previously shows that movements across US-97, I-90, and the Columbia River are relatively uncommon. Elk do move into agricultural areas of the Kittitas valley, but not often; most Colockum elk range on public lands (managed by WDFW, Washington Department of Natural Resources, and US Forest Service). The Colockum herd population objective is a post-winter population of 4,500 +/- 5%.

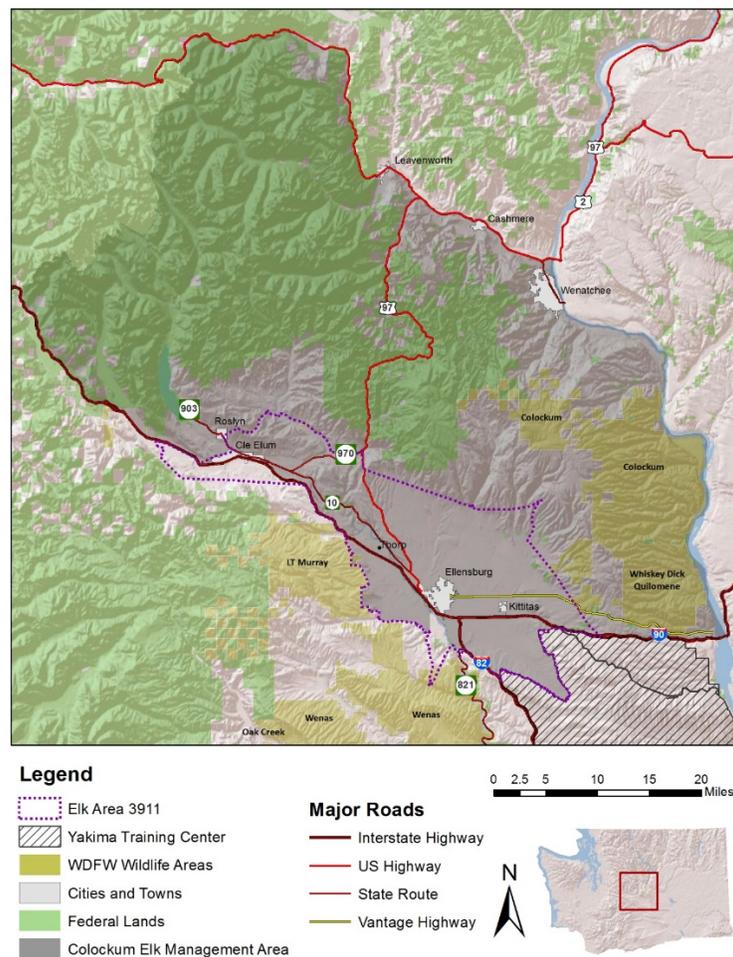


Figure 1. Map of the Pilot Project landscape and the Colockum Elk Herd Area.



From spring 2011 to spring 2015, the Colockum elk herd was above objective (4,250-4,750 elk) according to the annual spring helicopter survey of elk on winter range (Figure 2). The herd estimate peaked in March 2015 at 6,103 elk. WDFW issued liberal antlerless permit numbers beginning in fall 2015 to bring the herd back in alignment with the population objective. The summer of 2015 was a historic drought year. That summer, 200,000 sockeye salmon passed Bonneville Dam, and none survived elevated water temperatures to arrive at the next Columbia River dam at the Dalles. Impacts of the drought were widespread in eastern Washington. Not only were fish heavily impacted by the summer drought, but forage production on the summer ranges of eastern Washington deer and elk herds was impacted as well. During the Elk Herd Management Pilot Project (Pilot Project), the elk herd declined to about 4,672 elk by spring 2017 and 3,742 in 2020 (508 elk below the herd objective). The decline is the result of multiple factors—the summer 2015 drought, two extremely harsh winters, and an increase in antlerless elk hunting opportunity implemented for several years to bring the population back within objectives. This pattern of growth and decline in an elk herd is common, and the department is currently working to bring the population back within the 4,250-4,750 goal.

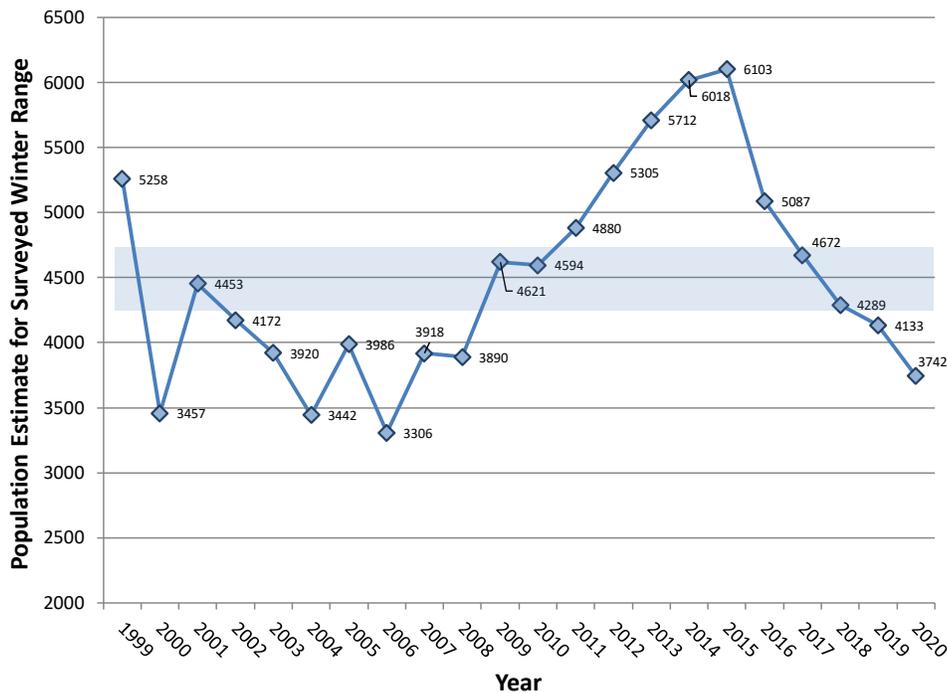


Figure 2. Summary of post-winter population estimates for the Colockum elk herd derived from annual aerial surveys. Horizontal blue bar represents the herd size management objective (4,500 +/- 5%).

Although most Colockum elk use areas far from I-90, some elk wintering on the south end of the area do spend time near the freeway and occasionally cross it or seek forage in the median in severe winters. Occasionally, elk are involved in collisions with motor vehicles. Prior to the winter



of 2015-2016 the numbers of elk-vehicle collisions were relatively low (i.e., less than a dozen; WSDOT file data). There was a substantial increase in elk strikes on I-90 in the winter of 2015-2016 (Figure 3); over the next several winters, elk strikes fell substantially to more recent historic levels (Figure 3). Elk collisions with vehicles occur over most of the span of I-90 section from Vantage on the Columbia River west to just past the Ryegrass summit, but accidents have been common in the first few miles west of Vantage and just west of the Ryegrass summit (Figure 4).

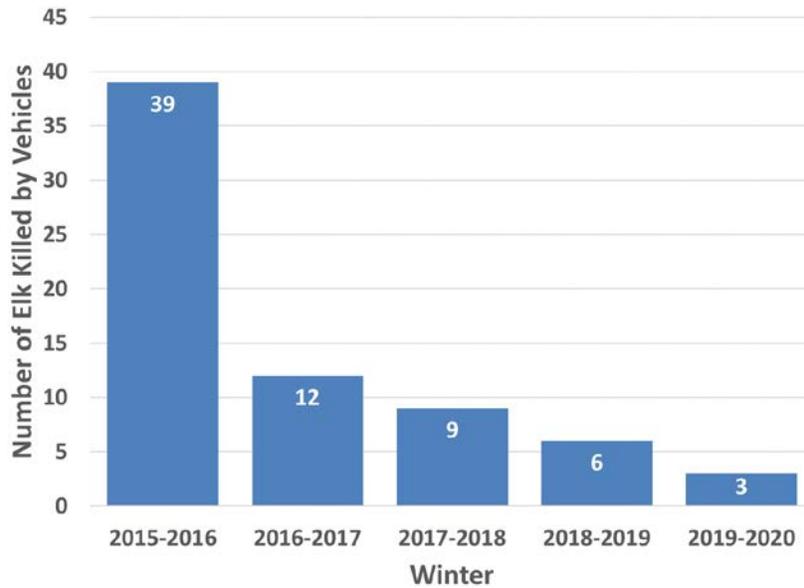


Figure 3. Number of vehicle/elk collisions each winter (Nov-Apr) from WSDOT records.

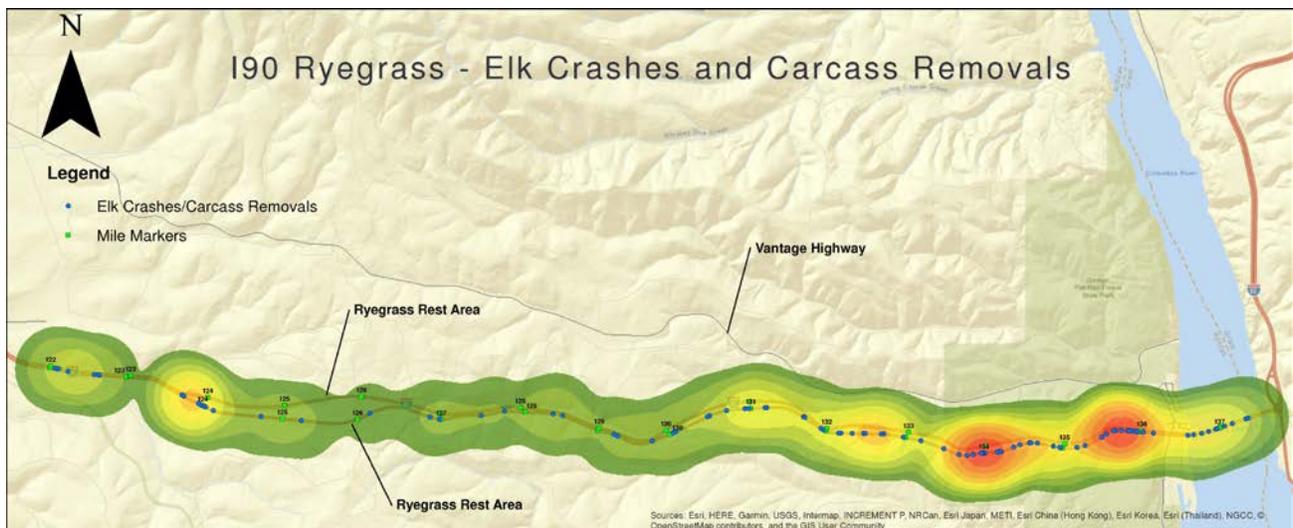


Figure 4. Recent historic locations of elk/vehicle collisions on I-90. Color ramp increases from green to yellow to orange with increasing collision frequency.



Pilot Project objective

The Pilot Project had two primary objectives; (1) improve traffic safety on I-90 between Vantage and Ellensburg, and (2) reduce the impact of elk damage to agricultural producers near the town of Thorp, an area that a small, semi-resident portion of the Colockum elk herd uses. The legislation established a Pilot Project under which the WDFW was directed to convene local meetings, along with the Washington State Department of Transportation (WSDOT) to consider, develop, and test management tools to reduce the local impact of elk on producers and reduce vehicular collision risk. Tools to be tested included but were not limited to: increased damage permits and general hunting opportunity, fencing and signage along I-90, restrictions on feeding elk in the Pilot Project area, and managed livestock grazing. (Substitute House Bill ([SHB](#)) [1353, 2017](#))

Process and participation

In November 2017, WDFW and Representative Tom Dent (13th Legislative District, Moses Lake) convened an initial meeting of stakeholders in the Pilot Project, and three additional meetings - one in May 2018 to discuss elk agricultural impacts over the winter, one in December 2018 to discuss new tools to test over the winter season, and one in August 2019 to discuss updates, lessons learned, and next steps. Participation in meetings included representatives from WDFW, WSDOT, local livestock producers, the Washington Cattlemen's Association, members of the Rocky Mountain Elk Foundation, Yakima Training Center staff, Yakama Nation staff, Kittitas Field and Stream Club, and Conservation Northwest.

Tools tested

Over the course of the three-year Pilot Project project, the partners evaluated the relevance of the following management approaches: increased harvest; restricted feeding by private citizens; targeted hazing and greater access to private lands; fencing, moving wildlife, and signage along I-90.

Harvest

One of the most effective methods for controlling elk numbers in the Colockum elk herd is through managed hunting. The Colockum elk herd core range consists of Game Management Units (GMUs) 328 and 329. Some elk also use GMUs 334, 335, and 251. GMU 334, is mostly private land in the Kittitas Valley, and WDFW manages this GMU liberally with a four-month general muzzleloader season for Master Hunters from August to December. This season was designed to reduce elk presence on private land and impacts to landowners in Kittitas County. The focal area of the Pilot Project near Thorp was in GMU 334. In addition, landowners with elk impacts are eligible for special damage permits that local WDFW Wildlife Conflict Specialists issue. On public land above the valley floor, WDFW offers several general seasons and special permit seasons each year for



archers, muzzleloaders, and modern rifle hunters to harvest elk from the Colockum herd. Managed hunting is designed to keep the herd numbers at or near objective, reduce elk presence on private land, and provide food and recreational opportunities to Washington citizens.

At the Pilot Project’s outset, the damage hunts for the Colockum elk herd were already very liberal, with harvest on private land remaining modest over the three-year period (Table 1) mostly because of private landowners’ reluctance to provide access for hunting and/or hazing. The challenge was not finding legal mechanisms to remove problematic elk through damage hunts, it was making the existing mechanisms appealing to landowners.

Table 1. Summary of landowner damage tags issued and elk removed from Thorp area

YEAR	NUMBER OF DAMAGE TAGS	NUMBER OF ELK REMOVED
2016	81	21
2017	156	52
2018	167	27
2019	71	6
2020	30	0

During the first two years of the Pilot Project, WDFW and U.S. Department of Agriculture (USDA) Wildlife Services conducted night elk removals in the Thorp area. Following that, they acquired access to daytime elk refuge areas, making night removals unnecessary. Access to daytime elk allowed hazing and hunting during the day. This was effective, as elk left the area and were only occasionally seen in the Thorp damage area.

Hazing and Private Land Access

Fencing and hazing are other tools wildlife managers can employ, besides harvest, to influence the behavior of elk groups. WDFW Wildlife Conflict Specialists have an array of techniques to fence or haze animals away from areas where they may be causing damage to croplands. These include traditional and/or electric fencing, fladry (line of rope with flags attached), strobes, alarms, propane cannons, and Master Hunters or paid herder/hazers.

At the beginning of the Pilot Project, WDFW used funds provided by the legislature to carry out the provisions of the legislation to hire a seasonal technician to assist the full-time Wildlife Conflict Specialist. The added capacity significantly improved WDFW’s ability to focus on elk conflict in the Thorp area. In addition, WDFW bought removable ATV snow tracs. This purchase made removal of harvested elk and hazing more effective and efficient during the winter months.



During the Pilot Project, WDFW conflict staff worked closely with private landowners to employ these techniques on lands where elk were finding refuge with the goal of moving elk away from farmers' crops.

Reducing elk use of croplands in the Thorp area was accomplished largely by two key components: (1) improving hunting access, and (2) decreasing elk feeding. By acquiring and maintaining access to elk refuge areas and applying persistent hunting pressure in those areas on a constant basis, elk left the area over time. To be effective, no refuge areas could exist in the area that offered elk refuge from direct hunting pressure. If those refuge areas persisted, elk would use them, and success at deterring elk from using the area would be reduced.

WDFW staff and landowners completed most of the hazing. At one location, WDFW placed three-dimensional (3D) fencing (a traditional fence with additional wires to give the fence "depth") around a field for two consecutive winter periods. The fencing was mostly effective at deterring elk from the area, but not completely effective. Monitoring elk, hazing elk, and removing elk was time consuming and required a dedicated WDFW technician to complete the tasks seven days a week. Without the WDFW staff technician, this level of effort could not have been maintained at the staffing level pre-dating the Pilot Project.

As of September 2020, people rarely see elk in the Thorp area, if at all. This is likely due to the heavy and immediate hunting pressure placed on elk if they venture into the area. If this type of pressure were to be removed, elk would likely begin to move back into the Thorp area and crop damage conflict situations might resume. The current low level of conflict in the Thorp area can be sustained if hunting pressure is maintained.

The Thorp damage area is all private land. Very few Master Hunters have gained access to the private lands and therefore very little, if any, hazing and hunting by Master Hunters took place in the Thorp area during these efforts.

Feeding

One of the challenges facing producers in the Thorp area is elk damage to private crop lands, specifically hay crops. Unfortunately, even when elk were hazed from one property, they would often take refuge on other private lands where harassment was minimal. This behavior was exacerbated by some landowners – many of whom were new to the area – providing refuge and feed to the elk, enticing them to stay.

The Pilot Project included a ban on feeding elk, which stated "*Feeding elk within the Pilot project area by persons other than the department is prohibited...*" Unfortunately, the language did not ban feeding other wildlife – deer, for example – so enforcing the ban proved difficult. When contacted by department conflict staff or Enforcement, landowners could claim they were feeding other wildlife, not elk. Nevertheless, landowner contacts provided an opportunity for WDFW conflict staff and Enforcement officers to educate local landowners about the impacts of elk feeding on their neighbors' livelihood. In this way, WDFW likely reduced elk feeding in the area by educating local landowners.

To educate the public about the negative effects of deer and elk feeding, a postcard was developed to distribute to landowners and the general public. A total of 400 "*DO NOT FEED*" postcards were



printed and distributed to landowners, feed stores, homeowners, post offices, Chambers of Commerce, and a few other locations.

Any kind of elk feeding on private land, whether intentional or not, predictably leads to elk use and habitual loitering where elk will likely cause damage. All types of feeding and access to haystacks was deterred during the Pilot Project and continuation is key to long-term success. Elk should not be given incentives to enter the area or stay. The reduction of feeding continues to be a difficult issue and a risk in many areas. It is a key to long-term success of keeping elk damage low in the Thorp area. If a new or current landowner were to resume feeding or restrict access to hunting and give refuge to elk in the Thorp area, the conflicts which have now largely been eliminated would likely reoccur.

Fencing in crop areas

A private landowner constructed experimental 3D fencing to try to keep elk out of his timothy fields in east Kittitas near the Ryegrass area (Figure 5). WDFW provided Pilot Project funding (\$4,986.63) for materials for cost share building of several types of 3D fencing with accompanying elk “jump outs” on the private cropland.

The results of the fencing trials were mixed. Elk tried to jump the 3D fencing far less than standard four-wire cattle fence. Elk avoided 3D fence areas and always walked around to areas with standard “single plane” or no fencing to enter crop areas. When trapped and hazed, elk attempted to jump 3D fences causing significant damage to the fencing and potentially resulting in injury to elk.



Figure 5. Elk stopped and confused on the outside of experimental 3D fencing.

In general, 3D fencing performed better than standard fencing when deployed to keep elk from entering crop areas. When elk were pressed or hazed to leave crop areas, the 3D fence was successfully negotiated by the elk with some damage to the fence and potential injury to elk attempting to vault the fence.



Several elk jump-outs were constructed at this location to help elk leave 3D fenced areas without damaging the fence or incurring injury. Elk located and used the constructed jump-outs regularly. The jump-outs saved costly repairs to the fence and injury to elk. In general, properly constructed and placed jump-outs were found to be very useful with all types of fence designs.

Fencing efforts to reduce elk collisions with vehicles on I-90

The first temporary 3D fence installation along I-90 was a response to the increased elk/vehicle collisions observed during the winter of 2015/2016. The emergency improvised fence design provided by WDFW was set to fiberglass posts approximately three feet outside the right-of-way fence and string them with turbo wire (electric fence rope) and ribbon (fladry). This was intended to discourage the elk by requiring a height and distance challenge to clear the fence. Fencing was installed on the north and south side of I-90 between Milepost 132 and the Vantage overpass at milepost 136.

This style of fencing was used and adapted over three consecutive years. The first year WSDOT observed that elk would follow the temporary fence to its terminus and go around. The fencing was also susceptible to damage from brush fires. In the second-year application, which included a longer run, the fence caused elk to congregate at the Vantage boat launch, near the eastern end of the fence, requiring hazing at that location. Elk strikes occurred on I-90, near milepost 136. By the third year, elk had grown used to the fence, and would simply damage it in the areas where they intended to cross.

WSDOT explored a right-of-way fence modification to increase the existing fence height, based off a Pilot Project Arizona Department of Transportation (ADOT) completed. However, in further consultation with ADOT, it was revealed that the fence modification was ineffective if there were no crossing structures every few miles. ADOT found that segments of three or more miles without a crossing structure, resulted in the elk destroying the fence in the areas they intended to cross. The area of concern along I-90 is 21 miles, with only one crossing structure large enough to fit an elk, and even that is too small for elk to willingly use (it was designed to manage domestic grazing, not facilitate wildlife movement).

As a final option, WSDOT explored the installation of permanent elk fence from approximately mileposts 121.20 to 136.70 on the north and south sides of Interstate 90. The cost estimate for a standard fence with no wildlife conveyances is approximately \$9,640,000; currently there is no available funding source.

Elk hazing near I-90

At the onset of the 2015-2016 operation, WSDOT initially tried to haze elk with a helicopter (Figure 6); the cost/benefit of this option did not prove viable, because the elk commonly returned to the interstate. The strategy provided only short-term relief.





Figure 6. During the Pilot project, hazing of elk near the freeway by helicopter was explored, but was minimally effective at keeping elk away from I-90.

WSDOT then coordinated with WDFW and the Washington State Patrol (WSP) for ground hazing operations. WDFW or WSP would haze the elk with cracker shells (a less than lethal pyrotechnic round) from a shotgun. Because the herd had the potential to bolt in unpredictable directions when frightened, WSDOT would coordinate a rolling slowdown of motorists when elk were hazed this way. Since this action often required coordination of multiple agencies and was dependent on the availability of staff from each, WSDOT decided to add a propane cannon (Figure 7; a sound making device used commonly in agricultural conflicts with wildlife) to its inventory.

Hazing with the cracker shells or the propane cannon proved effective, but only if used sparingly. After multiple discharges, the elk would be desensitized to the sounds and stop reacting.



Figure 7. Propane powered noise cannon used by WSDOT to frighten elk near I-90.



Wildlife conveyances

Along the stretch where the largest amount of elk/vehicle collisions normally occur, there is only one crossing structure large enough for elk to fit (Figure 8). Unfortunately, it is too small for elk to use voluntarily. To add wildlife conveyances in the future would be possible but also costly. The alternative solution would be a permanent elk fence. The most effective solution would involve a combination of permanent elk fence and wildlife crossings, similar to what is being installed on I-90 west of the Pilot Project area.



Figure 8. Historic livestock management culvert below I-90; elk were unwilling to use this potential crossing due to its small and confining nature.

Signage along I-90

When the increased elk activity began along I-90 during the 2015-2016 winter, WSDOT deployed two mobile Variable Message Signs (VMS) to warn motorists of elk activity on or near the interstate (Figure 9). An eastbound sign was deployed near milepost 126 and a westbound sign deployed near milepost 136. Each year since, VMS elk warning messaging is activated when road patrols begin to see elk activity (usually around October) and deactivated when road patrols no longer report elk activity (usually around March).

In 2020, permanent lighted elk warning signage was placed eastbound at milepost 127, and westbound at milepost 136 (Figure 10).





Figure 9. Variable message signs used to warn I-90 motorists of the potential for elk to be on or near the freeway.



Figure 10. Permanent lighted sign deployed by WSDOT in the Ryegrass stretch of I-90 to warn motorists to be alert for elk near the freeway.



Lessons learned

In response to the legislation, and in anticipation of future localized challenges in elk management around the state, WDFW and WSDOT have compiled the following “Lessons Learned” to apply when practicable:

- Local solutions, developed through regular coordination with local stakeholders, were critical to the success of the Pilot Project. Successes in the Pilot Project can be attributed to improved communication among WDFW, WSDOT, affected tribes, and local landowners.
- Representative Dent’s leadership, and his role creating the project, provided urgency for the work and brought diverse perspectives to the table.
- Hazing and limited harvest on private lands in the Pilot Project area seemed to be the most effective tools for moving elk and making private lands in the area an unsafe place for elk to reside. The Pilot Project provided increased funding for Wildlife Conflict Specialists, allowing WDFW to hire a seasonal hazer dedicated to working with landowners to deter elk from their property. The seasonal hazer, along with full-time conflict staff, worked in a coordinated manner to establish a presence on properties experiencing crop damage, while also providing hazing tools, fencing, and facilitating damage harvest wherever potentially useful.
- Harvest efforts associated with general hunting seasons on public land were less effective in reducing conflict. Semi-resident elk on private land was the core issue to be addressed to reduce damage in the Thorp area.
- Master Hunters were not widely deployed in the initial phase of the Pilot Project because some landowners had poor past experiences. During the Pilot Project, WDFW’s conflict specialists worked diligently to evaluate Master Hunters, matching experienced and professional Master Hunters with critical landowners. By the conclusion of the Pilot Project, more landowners developed a trusting relationship with Master Hunters in their area.
- Signage on the roadway and targeted hazing of elk appeared to increase driver safety on the interstate and collisions dropped dramatically during the Pilot Project. It was also apparent that the high rate of vehicle collisions with elk in the winter of 2015-2016 was likely influenced by the epic regional drought in summer 2015, followed by a winter with prolonged low elevation snowpack. This was the perfect storm of unfavorable conditions increasing the likelihood of elk being attracted to forage in the freeway median.
- Fencing was expensive, and while effective at preventing elk from crossing in certain locations, it also had the effect of moving elk to other areas along the interstate. Several carefully chosen sites for wildlife conveyances would allow safe passage to elk moving from one side of the freeway to the other. The group suggests investing in additional monitoring of the herd to identify migratory routes and the best locations for wildlife conveyances. The collision pattern during winter 2015-2016 suggested that most elk hit by vehicles were not trying to cross the freeway; rather, elk appeared to be seeking forage in the median during the severe winter.
- Outreach and education to new landowners about the impacts of feeding elk was an effective deterrent. Many individuals, especially when new to the area, did not know the impact they were having on the livelihoods of their neighbors. Educating them was effective in correcting this behavior. It would still be beneficial to eliminate feeding of deer and elk by private citizens, but that would require additional legislation.



Applying lessons learned to other elk herds in the state

One of the policy goals of the Pilot Project was to develop lessons learned and apply those lessons to address similar issues with other elk herds in the state. This goal is well-intentioned, and several of the lessons learned are transferrable to other elk herds, but the lessons from the Pilot Project cannot be transferred wholesale to another part of the state.

Successes during the Pilot Project were context- and herd-specific. The details of the Pilot Project dictated the appropriate wildlife conflict management strategy, stakeholder forums, and transportation solutions. Differences among land ownership, geography, and local stakeholders in the Colockum, compared to other parts of the state, requires carefully tailored solutions to elk issues specific to each local situation. That said, the Pilot Project did identify several lessons learned that could be applied more broadly to other herds in the state.

- Meetings should engage local elected officials and include a focused group of local stakeholders, agency subject matter experts, and affected tribes.
- Projects of this scope should span multiple seasons, allowing officials to evaluate different management approaches and assess their efficacy.
- Funding to hire new staff and/or deploy deterrents increases the chances of success and capacity of agencies.
- Outreach and education to new landowners, even those not directly involved in the Pilot Project, helped expand the reach of efforts like attempting to reduce and eliminate feeding that kept elk in the local area.



Appendix 1: Pilot Meeting Notes

COLOCKUM ELK PILOT MEETING #1

November 21, 2017

6:00 p.m. – 8:00 p.m.

PARTICIPANTS:

Representative Tom Dent (13th Legislative District), Tim Stein (RMEF), Jim Craghead (RMEF, Master Hunter), Lee Davis (Kittitas Field & Stream), Sage Shelton (Landowner), Scott Gress (Landowner), Craig George (Landowner), Jim Hanson (Landowner), Doug Sargeant (Cascade Field & Stream), Dave Duncan (WCA), Dan Brinson (WDFW), Scott McCorquodale (WDFW), Jeff Burnham (WDFW), Marcus Leuck (WDFW), Aaron Garcia (WDFW), Steven Wetzel (WDFW), Mike Livingston (WDFW), Mark Norman (WSDOT), Bill Sauriol (WSDOT)

BACKGROUND ON PILOT

Rep. Dent provided background on the intent behind the Pilot. He explained his two primary objectives with the Pilot: increased traffic safety in the area and reduce impact to crop production. The group discussed the main sections of the bill, the geographic scope and timeline, the increased damage permits, attention on fencing along I-90 and direction to explore alternatives for management, including hunting season adjustments, land management changes, etc.

BACKGROUND ON ELK HERD

Mike Livingston, Scott McCorquodale and Steve Wetzel provided background on the Colockum elk herd. They updated the group on the herd size, distribution and issues with the resident Thorp sub-herd. They discussed some of the management tools that have been employed in the last few years to manage the herd size, what's been working and what hasn't been as effective.

MANAGEMENT TOOLS TO BE TESTED IN THE PILOT PROJECT

The group discussed goals and additional management tools that could be explored during the Pilot project. The work group's primary goals for the Pilot include getting the Thorp sub-herd population down to 15 animals or less and reducing the number of elk vehicle collisions to pre-2015 levels (less than 10 annually). Below are a list of goals and associated management actions that the group intended to trial during the Pilot.

I. Thorp Herd Management

Goal: Reduce the local sub-herd herd size with a goal of getting down to 15 animals by the end of the Pilot period.

- Increase use of WDFW and USDA APHIS night harvest operations to reduce the Thorp herd size.
- Increase landowner damage permits if needed.



- Investigate a coordinated hunt and/or develop some system of donating salvage meat via tag, roadkill salvage options, or otherwise to help with processing of animals.
- Consider adjustments to Colockum hunting regulations to prevent movement of elk into the Thorp elk group (or Yakima Training Center).

II. Feeding

Goal: Eliminate feeding in the Pilot area.

- Increase outreach on the problems created by elk feeding by the public in the Pilot area. Consider a press release, a postcard to landowners, posters to hang throughout the community, and social media posts.
- Increase WDFW enforcement and education to eliminate feeding.

III. Private Land Access

Goal: Increase access to private lands where elk are holding to haze them off private land via hunting and/or WDFW removal efforts.

- Improve education on where and when damage permits can be used.
- Increase use of Master Hunters for hazing and fencing projects to create more partnerships with local landowners and create Master Hunter “Ambassadors” who gain local trust.

Next Steps

- ✓ WDFW to reach out to Kittitas Sherriff’s Office and State Patrol to update them on the Pilot and specific efforts to implement it.
- ✓ Rep. Dent to develop a press release announcing the Pilot, especially focusing on the feeding prohibition, to help get the word out.
- ✓ WDFW to develop a postcard and/or poster with information on the feeding prohibition and distribute locally.
- ✓ WDFW enforcement officers to collaborate with WDFW Conflict Specialists to step-up efforts to deter feeding.
- ✓ WDFW to begin implementing some of the group’s ideas this winter and schedule a meeting with the group in early spring to report back on progress.
- ✓ WDFW to alert the work group of any coordinated hunts, major removal efforts and/or processing needs.
- ✓ WSDOT to continue fladry and signage this winter while scoping funding for I-90 elk fencing.



COLOCKUM ELK PILOT MEETING #2

May 23, 2018

5:00 p.m. – 7:00 p.m.

MEETING PARTICIPANTS

Representative Tom Dent (13th District), Dave Duncan, Sarah Ryan (Cattle's Association), Craig George (Local Rancher), Scott Gress (Local Rancher), Bill Sauriol (WSDOT), Scott Anfinson (WSDOT), Kelly McAllister (WSDOT), Mark Norman (WSDOT), Scott McCorquodale (WDFW), Steve Wetzel (WDFW), Mike Livingston (WDFW), Raquel Crosier (WDFW), Margaret Taafe (Yakima Training Center), Jarret Mathews (Yakima Training Center), Paul Desanto (Yakima Training Center)

UPDATE ON ELK HERD MANAGEMENT

Mike Livingston, Scott McCorquodale and Steve Wetzel provided background on the Colockum elk herd. They updated the group on the herd size, distribution and issues with the resident Thorp sub-herd. They discussed the milder winter conditions this past year and the success of the additional staff capacity to keep up with hazing needs. They discussed how the Colockum herd has dropped from a high of 6,103 in 2015 to 4,289 in 2018, which is at the lower end of the herd objective. Contributors to the reduction in herd size include the harsh winter conditions, more hunter pressure, increased damage tags issued and filled, along with targeted removals of animals in the Thorp sub-herd in 2017.

UPDATE ON VEHICLE COLLISIONS AND HIGHWAY FENCING

Mark Norman, Bill Sauriol, Scott Anfinson and Kelly McAllister provided background on WSDOT efforts over the last year and their effectiveness in reducing vehicle collisions. They explained that the winter of 2015-2016 was harsh and there were 70 collisions with elk and that conditions the last 2 winters were much better. They explained that WSDOT data has identified the Ryegrass area as the area where the majority of the collisions are occurring. With this in mind, WSDOT has been testing a 3D fence equipped with fladry there. Unfortunately, while the 3D fence keeps elk from crossing where it is deployed, it seems to push elk to other parts of the freeway. They are also finding that the elk are becoming familiar with the 3D fence with fladry, and it is becoming less effective. This year they saw elk approaching and even jumping over this fence. WSDOT has been trying variable speed message signs – to warn highway drivers of elk but the signs haven't shown to be very effective at slowing drivers down. They agreed that hazing seemed to be helping to keep elk up away from the freeway.

DISCUSSION OF PROGRESS, CHALLENGES & ADDITIONAL STRATEGIES

Hunting pressure – Hunting pressure continues to be a challenge because of limited access for hunters on private lands.

- WDFW should continue to work on increasing hunting access on private lands and coordinating Master Hunters with landowners.
- WDFW should also work to address issues with the Master Hunters program to address issues with training, screening, and reasonable penalties for those who violate landowner terms, hunting regulations, and other program expectations.



Hazing – The hazing WDFW conducted in the Thorp area in 2017/2018 worked well in keeping animals off private lands and away from the highway.

- WDFW should continue hazing and should increase hazing in years where we have a drought followed by a harsh winter as those seem to be the highest crop damage years.

Yakima Training Center - YTC seems to contain a lot more elk than were present a decade ago. Some are staying on YTC during daylight and eating neighbor's crops at night. Elk are also affecting YTC property and training. YTC has had more success with Master Hunters – this year they removed 120 animals with Master Hunters.

- YTC and WDFW to explore ways to partner on herd monitoring/ surveys at YTC to see whether the elk seasonally on the facility are animals from the Colockum herd elk, are a resident herd, or are coming from elsewhere.
- YTC and WDFW to consider ways of increasing hunter harvest at YTC prior to October to target the resident herd.

Coordination and Communication - In the first year of the Pilot we've seen some management strategies have resulted in some unintended consequences. Need to be deliberate about where and how we use hunting and hazing so elk aren't being pushed into another problematic area (i.e., toward another road, private land, etc.).

- The group will work on communication and coordination on management actions to improve effectiveness, safety, and tracking of results.
- WDFW will notify WSDOT on changes to hunting and/or hazing pressure near the highway so WSDOT can increase road signage.

Feeding – WDFW saw good results from increased communications with landowners about the negative impacts of feeding.

- WDFW to begin handing out postcards on feeding to landowners and feed stores.
- WDFW and Rep Dent to consider scoping legislation around a state-wide feeding prohibition for deer and elk and changes to damage compensation program.

Fencing – WDFW did some field trials of 3D fencing this winter and it seemed to work better than regular fencing as a deterrent.

- WDFW and WSDOT will consider whether a different design of 3D fencing might be used on I-90 somewhere along the stretch from Vantage to Ryegrass.

Next Steps – The group decided it wanted to meet again a couple times before the end of the year.

- ✓ The first meeting will be hosted by YTC this summer to tour the facility and learn about the elk issues there. WSDOT will identify a date that works for them, Rep Dent, and WDFW staff and will get the date and time out to the group.



- ✓ The group will also meet again in November/ December prior to the winter to prep for the winter season. WDFW will work with Rep Dent to schedule this one and will get meeting time and location out to the group no later than early October.



COLOCKUM ELK PILOT MEETING #3

Yakima Training Center
December 10, 2018

ATTENDEES

Representative Tom Dent (13th District), Elisia Dalluge (Rep. Dent's Asst), Dave Duncan (WCA), Sarah Ryan (WCA), Jay Kehne (Conservation NW), Bill Sauriol (WSDOT), Todd Trepanier (WSDOT), Brian White (WSDOT), Dan Floyd (WSDOT), Scott McCorquodale (WDFW), Steve Wetzel (WDFW), Mike Livingston (WDFW), LTC Roger Gavrilluk – Commander (Yakima Training Center), CSM Paul DeSanto – Command Sergeant Major (YTC), Michael Daniels – Deputy Commander (YTC), Wade Warner – Director of Public Works (YTC), Colin Leingang – Wildlife Program Manager (YTC), George Holman – Range Officer (YTC), William Cantral – Police Chief (YTC), Eric Miller – Lieutenant, YTC Police, Tyler Towell – YTC Police

Summary of Key Points:

WSDOT

- At this time there is still no project funding and only limited discretionary funding for fencing
- There is no solid, confirmed elk strike data. Strike data complicated with new WDFW Salvage Program of carcass removal.
- WSDOT preliminary estimate for a Kittitas-Vantage elk fence (both sides of I-90) is ~\$20M (fence only) and would require additional funding for multiple crossing features. This would require an “ask” from the legislature. Also, a concern was expressed about this fencing and if it would adequately “button up” the eastern end in and around Vantage. Any fence would have to be constructed with steel posts due to fires.
- Comment was made that while “hazing” appears to work in the short term, elk become desensitized to this and other actions over time so no one thing seems to deter them long-term. Other actions tested to date include message boards to slow down vehicles, 3D fencing, and fladry fencing.
- WDFW noted that the high collision count that occurred in the winter of 2015-2016 seemed associated with the perfect storm of an epic summer drought (reduced summer-fall elk forage) in 2015 and a relatively persistent snowpack the following winter. Collisions seemed to drop to more historic levels the following two winters.
- Made mention that there are no wildlife migration studies for the Ellensburg to Vantage section similar to what was done prior to the Snoqualmie Pass I-90 wildlife crossing projects.

Conservation Northwest – Jay Kehne

- The Pilot project to fence a 12-mile section of US 97 continues to make progress, with ~\$200K in private funds committed. This project will include both fencing and crossing features.
- Studies have shown that mule deer vehicle collisions cost about \$6500 per event.
- Cost per mile for fencing and strategically located crossings is about \$1.2 million.

WDFW and General Discussion by group

- Question was raised whether the growth in the Hanford herd has created impacts elsewhere.



- General discussion on YTC Elk having three origins (Hanford herd, Colockum herd, resident YTC herd) but there is a lack of current information regarding population numbers, movement, and habitat use for YTC elk.
- Scott McCorquodale discussed the findings of the Colockum cow and bull elk studies completed in 2012 and 2017, respectively. None of the more than 400,000 GPS locations of collared cows occurred on YTC. Two bulls collared on the Colockum (north of I-90) did seasonally use YTC. Two additional bulls were captured and collared on YTC to track their movements and they did continue to use YTC lands.
- During the winter of 2015/2016 when 70+ elk were hit on I-90, most of them were hit in the west bound lanes. Presumably to forage on the vegetation in the median that was available above the snow.
- General discussion on fate of the Master Hunter program currently identified as possible budget cut. Master Hunter harvest makes up approximately half of the YTC annual elk harvest in recent years.
- Discussion on the status of 300 damage permits made available through HB 1353. To date, 307 landowner permits have been issued in Kittitas County. Nine elk have been harvested in the Thorp area and thirty-six elk have been harvested in other parts of Kittitas County using the landowner damage permits.
- Discussion about the possibility of creating feeding stations. Currently only done with the Yakima herd, and these stations must be accompanied by fencing. The intent of the feeding program for the Yakima Herd is to “short-stop” the elk during their winter migration to keep them from entering the irrigated farmland. WDFW’s feeding of elk is a costly annual expense and is done to keep elk out of high value crops. It is only effective when coupled with expensive elk fence. WDFW manages approximately 100 miles of elk fence to keep Yakima elk herd out of agricultural areas. Feeding always has potential risks related to spread of disease and parasites, and feeding may also attract additional elk to an area where fewer are desired (such as near I-90).
- HB 1353 directed WDFW to use managed livestock grazing to attract elk away from roads and private property. Mike Livingston will check with Jeff Burnham (WDFW Rangeland Ecologist) to get more detail on the impacts of grazing regarding elk management. This will be a subject of discussion for the next meeting.
- Steve Wetzel reported that most of the private landowner feeding of elk and deer in the Thorp area has stopped. The word has been getting out that it creates a problem for farmers. However, there are new people moving into the area regularly, which requires continuous communication to prevent new problem areas developing. WDFW will complete a post card describing the issue, informing them of HB 1353, and ask them to not feed elk and deer.
- There is no current plan for aerial surveys of the YTC elk population, though most in attendance agreed that we need better data on the herd size on YTC. A one-off survey is not enough, so YTC staff will work with WDFW to ensure the right language is included in the current YTC INRMP update to elevate the importance of this effort (so as to compete for resources). The survey design would need to reflect the question intended to be answered (e.g., would be different for “how many elk are on YTC during winter from all sources” vs. “how many elk are resident on YTC?”).

Representative Dent



- Raised a question / concern about training elk (and feeding them), and if we are applying the right pressure on the herd in the right places through hunting, or are we chasing them out of areas where we want to keep them?
- Rep. Dent would like to include more of the rancher population at the next meeting so may need to adjust the meeting time/location to accommodate.

Action Items

- WDFW will complete a “do not feed” post card that describes the issue, informs people of HB 1353, and asks them to not feed elk and deer
- YTC and WDFW will have a follow-on conversation to talk about herd management goals to better inform the INRMP process/product.
- WDFW will have Aaron Garcia (WDFW Hunter Education and Volunteer Coordinator) talk to YTC about mentored hunting opportunities for both service members and youth (to work in conjunction with the damage tag program).
- M. Livingston will arrange for Jeff Burnham to attend the next meeting to discuss grazing on WDFW lands

Meeting closed at 1210 and it was agreed that we will meet again in late-April, early-May 2019.



COLOCKUM ELK PILOT MEETING #4

August 26, 2019

3:00 p.m. – 6:00 p.m.

PARTICIPANTS:

Representative Tom Dent (13th Legislative District), Ethan George (Cattlemen), Bill Sauriol (WSDOT), Brian White (WSDOT), Dan Floyd (WSDOT), Margaret Thruff (YTC), Jeff Burnham (WDFW), Scott McCorquodale (WDFW), Ross Huffman (WDFW), Jim Hanson (Landowner), Shawn Lamebull (Yakama), Russ Stingley (Cattlemen), Danny DeFranco (Cattlemen), Dave Duncan (Cattlemen), Steve Wetzel (WDFW), Laurel James (Yakama), Dave Blodgett III (Yakama), Phil Rigdon (Yakama).

OVERVIEW OF LEGISLATION

Rep. Dent provided background on the intent behind the Pilot. He explained his two primary objectives with the Pilot: (1) increased traffic safety in the area and (2) reduce impact to private landowners near Thorp.

UPDATE ON WDFW'S WORK UNDER THE PILOT - STEVE WETZEL/ MIKE LIVINGSTON

Hazing – Having additional capacity to monitoring and haze elk has been critical and has helped keep the Thorp elk out of farmer's fields.

Fencing – WDFW has been working to use some of our cooperative fencing funds in Colockum herd area. Fencing is expensive and costs limit how much exclusion WDFW can accomplish with the funds available.

Feeding – WDFW developed outreach postcards to provide to landowners and leave at feed stores. The postcards have received good feedback so far. Based on feedback it's clear that some people that were feeding the elk didn't know it was problematic and appreciated the information. Others now know it is a problem but are still feeding. To truly enforce illegal feeding, WDFW enforcement recommends prohibiting feeding statewide through legislation.

Thorp Sub-herd status update – The Thorp sub-herd population was down in our latest survey due to a combination of weather and hunting.

Hunting pressure – WDFW has increased hunting pressure in the Thorp valley. Since the Pilot was enacted 75 animals have been removed in the Thorp area via damage tags. This year, due to the smaller herd size, WDFW is issuing fewer damage tags – mostly due to less demand. Youth hunt opportunities are being considered for next hunting season.

Grazing – WDFW is working to explore feasibility of additional grazing in the area. WDFW expanded one grazing permit recently and is working to identify other possible opportunities for future grazing leases. One area being considered is a historic WSU/WDFW lease in the Thorp area. Cross fencing costs for grazing are going up, which is a challenge for new leases.

Colockum herd update - The Colockum herd high point was in 2014 with 6,103 animals. WDFW began issuing more antlerless permits during the general season: 445 in 2014, 700 in 2015, and



continued aggressive hunts into 2016 and 2017. Unprecedented droughts and harsh winters had a significant impact on the herd size. Currently the herd population is at 4,133 which is just below objective. WDFW is ramping back on antlerless permits to get the herd back to objective.

WSDOT UPDATE

Hazing is helping keep elk away from the road. There has been good communication among agencies. In 2018 there were only 8 vehicle collisions involving elk on I-90 near Vantage, and no serious injuries. WSDOT is replacing and expanding signage so it is more visible. WSDOT has tried temporary fences – but faced challenges with how long they need to be and where to locate them. To keep elk from moving to another location, there would be a need to build fence the whole length of that stretch, which is cost prohibitive (\$10M for fencing and \$5M for crossings). In the bad 2015-2016 winter, elk were coming from westbound side of the roadway, apparently heading to the median to get to willows and other forage.

YTC UPATE

YTC doesn't have an elk count on the firing center property. They are looking at doing an aerial survey this season. They can't use army equipment for the survey but can do in coordination with WDFW with WDFW helicopter. Challenge for survey is increased training regime and cost. Training could very well push elk around in a different way this coming year when the entire center will be used for training. WDFW issued 10 damage tags to YTC, but due to training regime, access is challenging. YTC is looking to get a count and a better sense of how elk are utilizing the area. YTC is working to update their management plan; they will include elk management in the plan and are hoping to get funding for activities. Survey would take two days minimum. If the goal is a maximum number of animals it could be done in one survey, if the goal is to get a sense of how many reside at the firing center (and aren't just passing through) we would need to do a couple surveys at least.

UPDATE ON DAMAGE ISSUES – RANCHERS/ FARMERS

Jim Hanson – We have seen less activity and less damage on our property.

Ethan George - Master Hunter program is working, and they have had good people that have had good success removing animals and reducing impacts. No damage issues this year, waiting to see what happens this winter.

Russ Stingley – Russ had 60 elk using his land at the beginning of the season. Hunting pressure helped move them. Much better than the 300 we used to have year-round. Fences are in good shape, not much mending required or damage to crops.

Dave Duncan - Conflict specialist Steve Wetzel is great at anticipating elk activity, movement, and suggesting where and how to move the elk along.

Danny DeFranco – It has really helped having Steve advise us on elk movement. The elk activity has really been focused in the evening, and so managing them into the evening is important.

UPDATES FROM YAKAMA NATION

The Yakama Tribe would like to support this effort and has tribal hunters and wildlife managers that can help.



OPEN FEEDBACK

The group discussed that there was one year left in the Pilot and brainstormed other tools to test during the Pilot or things we want to study?

Dave Duncan – Fencing is cost prohibitive \$10M plus \$5M for crossings. Wants to know what the effect of wolves are on the Colockum herd was. Try to get a sense of predator/ prey impacts on the herd.

Mike Livingston – What about posting signs with the number of elk/vehicle collisions? WSDOT is trying that and it does seem to motivate people to drive slower.

Rep Dent – What about having some additional outreach by WSDOT on elk collisions at rest stop or on social media?

Rep Dent – Could we investigate what other states are doing to reduce vehicle collisions to see if there's anything that might work here?

Dave Duncan – We need to do more surveys of the Colockum herd to better understand their movement, especially of the sub-herds.

Russ Stingley – Maybe we could look at whether the elk are holding more in regenerating burn areas or where the good forage is. Overlay survey data with forage types?

Steve Wetzel – What about working to hold elk in the wildlife area? We could do this by restricting access to part or whole WLA during certain times of year. Locally very controversial, but other states do this with high levels of success.

Mike Livingston– What about trying drift fencing with a wildlife tunnel vs. large fencing project with full crossings? Perhaps WSDOT could begin looking at where the most appropriate location would be.

Shawn Lamebull – What about doing a small-scale survey using drones or officers on patrol. Work on getting anecdotal information from soldiers via exit survey. Develop a reporting system so non-managers can report what they are seeing in herd size/ movement. Get info from the public, local government, law enforcement, etc. We need to develop some more modern ways of getting the word out – YouTube video, develop opportunities for service-learning projects (for outreach, surveys, etc.), K-12 curriculum, social media.

NEXT STEPS

- ✓ Rep Dent to reach out to Rocky Mountain Elk Foundation
- ✓ YTC to work elk management into their Natural Resource Management Plan
- ✓ YTC and WDFW to scope survey at YTC
- ✓ WDFW to look at what it would take to broaden annual Colockum herd surveys, consider frequency, overlay survey data with forage types, fires and predator population concentrations
- ✓ WDFW to continue working on youth hunt and livestock grazing opportunities
- ✓ WSDOT to explore more outreach – signs, social media, sensors, etc.
- ✓ WSDOT to look into data on where the elk are crossing near Vantage.



- ✓ Explore the idea of a reporting system that would involve the community – check with Yakama enforcement, WDFW enforcement, local government enforcement.
- ✓ Explore other outreach opportunities and engage Public Affairs folks from WSDOT, WDFW and legislature.
- ✓ WDFW to take a stab at mining the notes from each meeting to pull key lessons learned for this group to consider for the final report.

