WDFW Management Approach
Completed

- WDFW Elk Hoof Disease webpage
- On-Line Hoof Disease Reporting Form
- Frequently Asked Questions page
- Hoof Disease Public Working Group page
- Information in 2013-2014 and 2014-2015 hunting pamphlet
- HD Brochure

Information is subject to changes and amendments over time.
Advisory Groups

- Hoof Disease Technical Advisory Group (WDFW, CSU, WSU, WDOH, ODFW, USDA)
  - composed of veterinarians and researchers to guide the diagnostic effort and discuss research and management questions

- Hoof Disease Public Working Group
  - discuss research and management questions and options, share information, and communicate with the public
  - 4 meetings to date since Oct 2013
Completed

- Developed proposed WAC (& emergency WAC) to leave hooves on site from elk harvested in SW Washington for FWC consideration
- Two citizen and three WDFW public meetings
- Reviewed and approved joint Department of Health and WDFW Game Meat Safety flyer
  - Posted on-line
- Developed management approach - multiple input
- Hired HD Coordinator
  - Coordinate Department response to hoof disease; conduct citizen science effort; management options implementation, etc.
Completed

- Poster at meeting of the Wildlife Disease Association – July 2009
- Article in Washington State Veterinary Medical Association online newsletter - July 3, 2014
- Paper presented at meeting of the Wildlife Disease Association - July 31, 2014
- Paper submitted to the Journal of Clinical Microbiology - August 6, 2014
New Funding for SFY15

- HD Coordinator
  - Funding from the 2014 $200,000 supplemental budget
- Survival Study
  - $180,000 prioritized from Pittman Robertson funds
- Rocky Mountain Elk Foundation
  - $8,000 sample analyses
- 2015-17 Budget Request - $250,000
  - Continue to understand cause, prevalence/distribution study, survival study, protocol development, management implementation, etc.
Management Challenge

- Once HD in a herd & landscape, extremely difficult to eliminate
- The challenge is to manage the disease
- Management Options and Research Questions
  - Reduce density, containment, treatment, let disease run its course, prevalence/distribution, survival/reproduction, continue to identify causative agents
Compiled and assessed all HDPWG, HDTAG, and WDFW staff input and developed the following management approach.
The current needs are to:

- Continue to identify/understand the causative agents
- Determine the prevalence and distribution of the disease in the population
- Document the effects on elk population dynamics (survival, reproduction), and
- Where feasible, manage the disease
Causative Agents

- Continue to identify/understand the causative agents:
  
  - Technical Advisory Group met to review latest results and developed a consensus statement about the likely cause(s) of the disease
  
  - Informational needs
Prevalence and Distribution

- Determine the prevalence/distribution of the disease in the population:
  - Working closely with a cadre of citizen science volunteers to collect prevalence and distribution information
    - Protocol being finalized
    - Test survey data collection effort in August
    - Broader call for volunteer assistance to collect distribution data this fall
Prevalence

Limper Reporting Density
Includes only reports where Limpers >= 2

- High
- Medium-High
- Average
- Low
- 1 Limper Reported

Parts of OMUs with no Reported Limpers
Distribution
Survival and Reproduction

- Determine the effects of HD on elk population dynamics:
  - Accomplish by an extensive, new effort by existing biological staff to radio-collar afflicted animals and monitor survival, reproduction, and movements relative to non-afflicted animals
  - Study design is being developed;
  - Coordinated by Elk Specialist in concert with both Regions and HD Coordinator
Infectious Hoof Disease Management

INDIVIDUAL ANIMALS/HERDS

- Good biosecurity
  - quarantine new animals
  - isolate newly infected animals from the rest of the herd?
- Aggressive treatment (clean and pare out hoof, apply topical antibiotics, bandage, injectable antibiotics)
- Regular footbaths
- Keep on clean dry ground
- Rotate pastures
- Vaccinate if effective vaccine available
- Select for genetically resistant animals?
- Cull individuals that are severely affected or fail to respond to treatment?
Animal Disease Eradication

- Requires the following:
  - Ability to identify all infected animals, even if they are not showing signs of disease yet
  - Ability to locate and remove all infected animals
  - Ability to prevent movement of infected animals
  - Access to property inhabited by animals

- Difficult to do on a large scale without extensive resources
  - Try to approximate it
Animal Disease Eradication

- Concept:
  - Core animal removal and disinfection area
    - Remove all animals in core
  - Buffer control zone surrounding core disease area
    - Remove only affected animals, quarantine the rest
  - Perimeter surveillance area
    - Enhanced disease surveillance outside infected area
Manage

- It is very important to acknowledge up front that any approaches that have successfully been used to manage disease in domestic animals will be entirely experimental when applied to free-ranging elk.
Manage

- Work with landowners on possible fencing options:
  - pro-actively reduce possible risk of transmission
  - address elk crop damage

- Coordinate staff and others to respond to sightings of elk with severe clinical symptoms to remove them from the population
  - with a focus:
    - in core areas of disease to reduce prevalence and
    - in the observed perimeter of the disease to attempt to reduce spread of the disease
Next Steps

- Implement prevalence (Aug) and distribution (Fall) effort
  - Test data to inform comprehensive effort
  - Implement additional prevalence and distribution data collection in spring 2015 and beyond
- Implement removal of severely affected animals
  - Staff and possibly Master Hunters
  - Protocol and criteria to be developed
- Develop and implement survival study
  - (~February/March) 2015
Next Steps

- Develop policy to no longer translocate elk outside of SW Washington
- Continue working with HDPWG and HDTAG as moving forward
- Assess feasibility of monitoring of live animals with hoof disease
- Reach out to National Academy of Science on guidance and assistance (e.g., HD work conducted to date, future research, herbicide, etc.)
- Landowner and hunter outreach on HD information
Thank you....any questions....