

## Puyallup TWG Proposal for 2004

### Program Summary

The Mount Rainier National Park South Herd (MRNPSH), South Rainier, and portions of the St. Helens herds will be aerial surveyed for population estimates and herd composition within several Game Management Units listed in the program narrative. Additional knowledge gained from the radio-telemetry will allow us to identify critical habitat and timing of migrations. This will allow us to better manage our hunting season length and harvest rates for healthy harvestable herds.

Critical elk winter habitat will be identified and mapped by using GIS analysis. Potential conservation easement/land trust opportunities will be pursued.

Surveys of established plots within the Mount Rainier National Park (MRNP) will be conducted by helicopter. Population estimation will be done by "E4" count methods. Consistent with previous methods, survey efforts will be mid-September through late October. Elk counted will be classified as "cows, calves, and age-group bulls."

Active radio collars will be recovered from any mortality that occurs for redeployment on other cow elk in the upper Cowlitz River or Mount Rainier National Park areas. Collars will be serviced prior to redeployment. A minimum of 20-30 elk will remain in collars.

Each selected animal will be darted from a helicopter with a carfentail-xylazine drug combination. Once the animal has been processed, this will be reversed using naltrexone. The animals will be located, blindfolded, and hobbled by a nearby ground crew of 3-5 people mobilized by 4x4 vehicles. The crew will be in radio communication with the helicopter to aid in locating the darted animal. The expected length of time the animal will be immobilized is approximately 15 minutes. Net gun captures may be utilized in lieu of drug immobilization.

Elk capturing will be timed so there is no overlap of a hunting season for up to 30 days due to toxic levels of immobilization drugs. Each animal will undergo the following procedure: Collared with radio-transmitter, blood drawn, tested for pregnancy, body condition assessed, aged as determined by dentition wear, fecal sample taken, ectoparasites collected, and vaccinated with antibiotics and vitamins.

Relocations will be obtained at least one time per month while the animals are on the wintering ground using fixed wing aircraft or helicopter. When the anticipated migration season initiates, the frequency of flights will increase to at least two times per week to maintain contact and obtain sufficient locations of the herd's route. Once they are on the summer territory the relocations will be reduced to at least once per month. As fall migration approaches the relocations will once again increase to at least two times per week until they are back on their wintering grounds. The increased number of flights will allow for greater accuracy of migratory timing and routes and is needed due to the elk's ability to travel long distances in a short period.