ELK MOUNTAIN WATER DEVELOPMENT PROJECT

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Elk Mountain

- Located in southern Black Hills
- Landownership includes a mixture of private, BLM, and USFS.
- Majority of the surface ownership is USFS (23,536 acres)
- Elk Mountain is split in half between Wyoming and South Dakota
- Majority of rangeland is dominated by Ponderosa pine savannah
Livestock Grazing

- 5 allotments
- 478 cow/calf pairs cattle from 6/1 to 10/15
- Grazing distribution limited by livestock water availability.
Wildlife

- Elk, mule deer, and of particular interest, a herd of bighorn sheep.
- Largest bighorn sheep herd in the Black Hills (only herd in WY Black Hills)
- Currently, population estimate is around 150 bighorn sheep
Water Development Discussions

- Discussion began in 2012 between permittees and USFS
- Water sources available, but building the pipeline was costly
- A limited water development budget prohibited this project being completed in a timely manner
Proposed Water Project

- 13 miles of pipeline, 21 livestock tanks, 4 guzzlers, 9 storage tanks and 3 water source locations.
- Additional well development on LAK Ranch
- Total cost of the project was $277,500.
Partner Contributions

- USFS – $94,000
- Permitees - $66,000
- SDGFP - $86,000
  - Funding source:
    - SDGFP Bighorn Sheep Tag Funds - $51,000
    - Rocky Mountain Elk Foundation - $22,000
    - Mid-West Sheep Foundation - $13,000
- Wyoming Game and Fish Department - $31,500
  - Funding source:
    - Wyoming Governor’s Big Game License Coalition - $5,000
    - Wyoming Wild Sheep Foundation - $11,500
    - Water for Wildlife Foundation - $10,000
    - Mule Deer Foundation - $5,000
The Project in Action

- USFS and SDGFP – Livestock pipeline materials
- Permitees installed the pipeline
- WGFD – Guzzlers and LAK Ranch well development
Water System

- Required 5,000 different fittings
- Required a combination of steel pipe and various different HDPE pipe sizes
- Many relief valves were required to be installed
Four guzzlers installed on the pipeline (Boss Tanks, Elko Nevada).

Need for year round water supply

Floats were installed in the guzzlers to control water when water system is on

When water system is off, guzzlers dome top can still collect rain water

Guzzler locations chosen based on bighorn sheep distribution
Guzzlers continued…

- Guzzlers were installed after the pipeline installation by WGFD, SDGFP, USFS, and volunteers.
Majority of the bighorn sheep on Elk Mountain winter on the LAK Ranch

WGFD provided cost share to LAK Ranch to activate an old windmill well

Pasture was not being used by livestock due to lack of water.

Hopefully will reduce conflicts with other landowners and reduce railroad collisions.
LAK Ranch Well Development continued...

- Installed a culvert tank system
- Culvert tank uses geothermal heat to remain frost free during the winter months
Project Benefits

- Reliable water source
- Better grazing distribution
- Other improvements can be made to better manage pressure and timing of grazing
- Provide an almost year around water source for wildlife
- Hold game species on public land
- Possible reduction of Epizootic Hemorrhagic Disease
- Possibly reduce bighorn sheep and train collisions
Results
Results
Results
Results
Thanks to all of the partners and volunteers that made this project possible!
Questions?