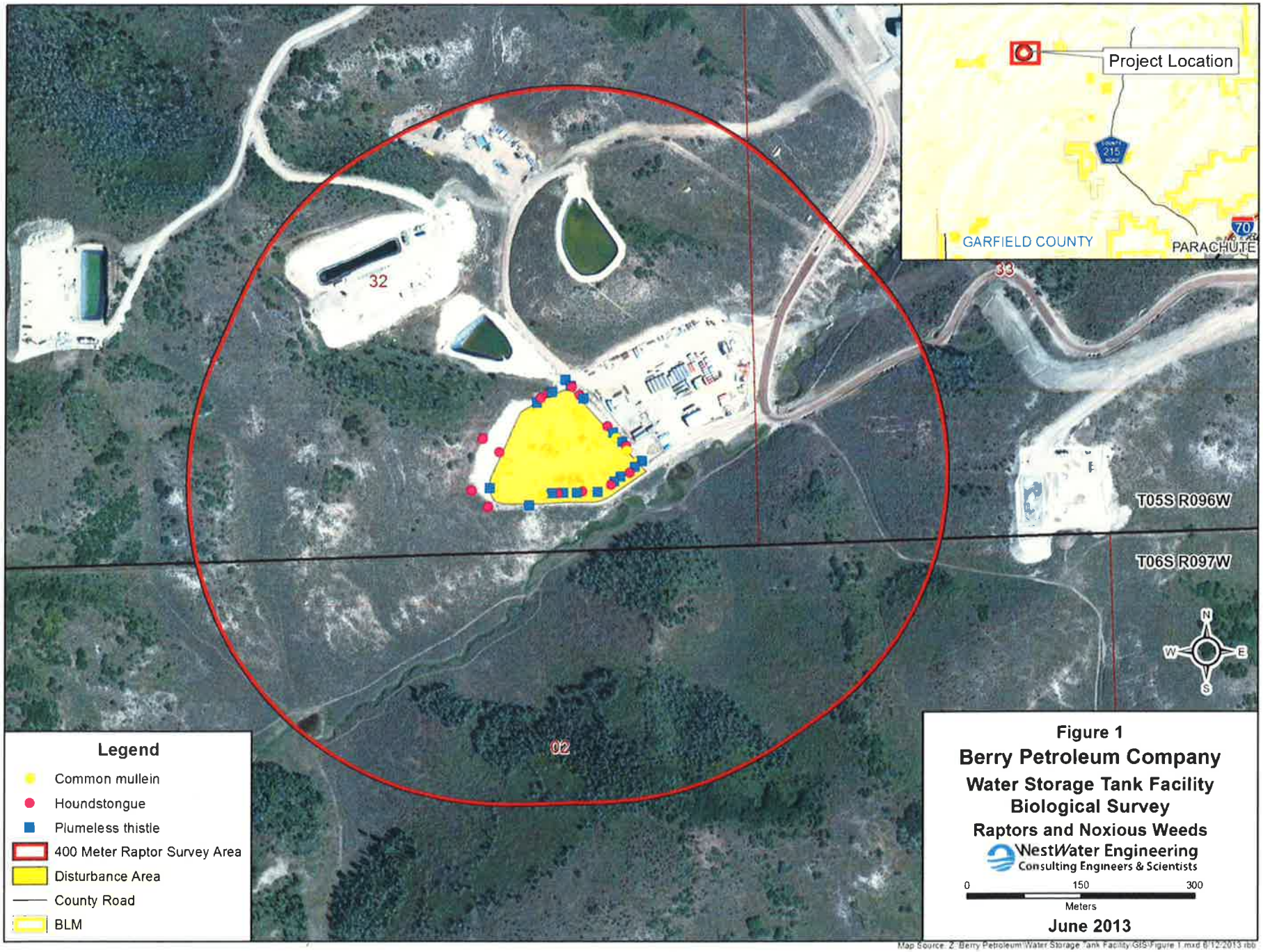

Project Location
GARFIELD COUNTY
PARACHUTE
215
70
32
33
02
T05S R096W
T06S R097W
N
W
E
S
Legend
Common mullein
Houndstongue
Plumeless thistle
400 Meter Raptor Survey Area
Disturbance Area
County Road
BLM
Figure 1
Berry Petroleum Company
Water Storage Tank Facility
Biological Survey
Raptors and Noxious Weeds
WestWater Engineering
Consulting Engineers & Scientists
0
150
300
Meters
June 2013
Map Source: Z:\Berry Petroleum\Water Storage Tank Facility\GIS\Figure 1.mxd 6/12/2013 rbb

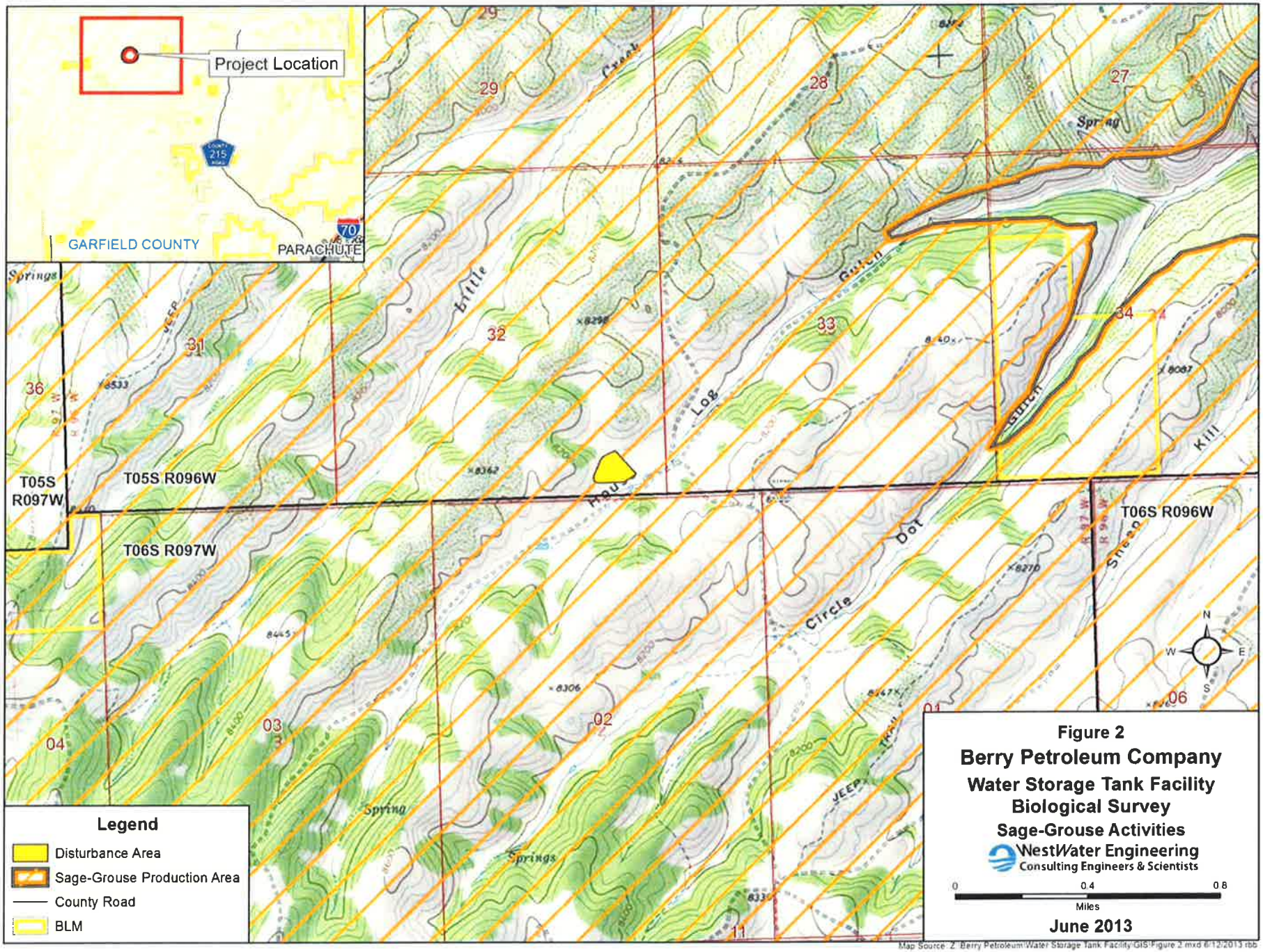


Figure 2

Berry Petroleum Company

Water Storage Tank Facility

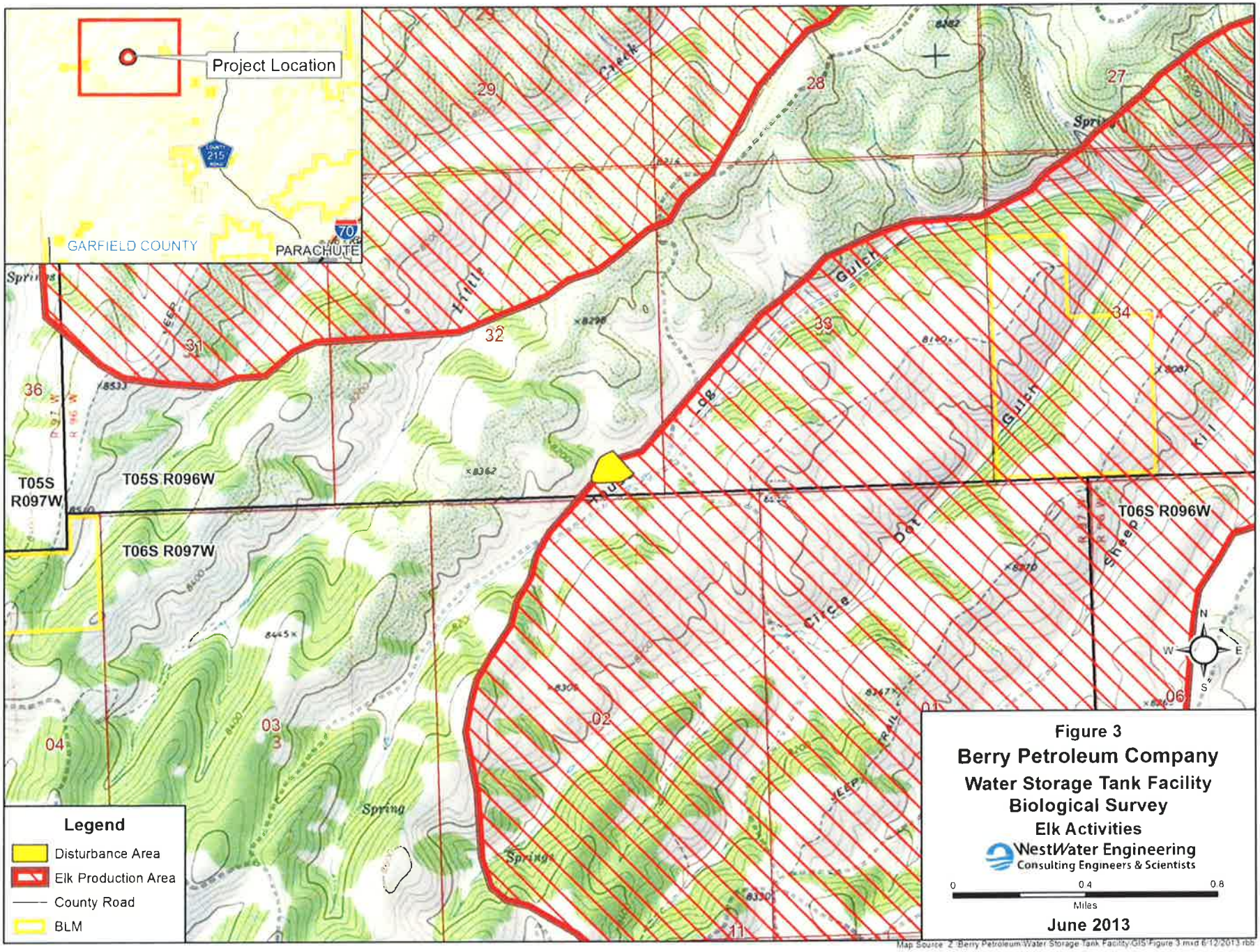
Biological Survey

Sage-Grouse Activities

WestWater Engineering
Consulting Engineers & Scientists

June 2013

Map Source: Z:\Berry Petroleum\Water Storage Tank Facility\GIS\Figure 2.mxd 6/12/2013 rbb


Project Location
GARFIELD COUNTY
PARACHUTE
T05S R097W
T05S R096W
T06S R097W
T06S R096W
Legend
Disturbance Area
Elk Production Area
County Road
BLM
Figure 3
Berry Petroleum Company
Water Storage Tank Facility
Biological Survey
Elk Activities
WestWater Engineering
Consulting Engineers & Scientists
0
0.4
0.8
Miles
June 2013
Map Source: Z:\Berry Petroleum\Water Storage Tank Facility\GIS\Figure 3.mxd 6/12/2013 rbb

Berry Petroleum Company

Water Storage Tank Facility

Section 7-202 Protection of Wildlife Habitat Areas
Garfield County Unified Land Use Resolution 2008

WILDLIFE

Raptors

Activities associated with the water storage tank facility have minimal potential to impact raptor populations as no nest trees will be directly affected and no raptor nests were documented near the project area during the 2013 survyes.

Greater Sage-grouse

Sage-grouse occupy and probably nest in the sagebrush habitat on the open ridge tops upslope from the site. Deterrent devices should be used to prevent sage-grouse predators such as raptors from utilizing structures on the site as hunting perches. The potential for road-kill exists, although speed limits are low. If not already in place, signage warning drivers of the presence of sage-grouse would further reduce the likelihood of mortality to sage-grouse by increased human presence in the area.

American Elk and Mule Deer

Implementation of an integrated vegetation and noxious weed management plan would improve the existing condition of the area surrounding the water storage tank facility. A reclamation plan should be implemented to reduce the establishment of noxious weeds in disturbed areas. Reclamation of disturbed areas not utilized as part of the facilities would decrease the presence of noxious weeds and provide forage for mule deer and elk.

Any livestock fencing (barbed wire) should be constructed to minimally affect elk and mule deer movements. The top stand should be smooth wire. Colorado Parks and Wildlife (CPW) has published guidelines for construction of fencing that reduces impacts to mule deer and elk (CPW http: wildlife.state.co.us). Following "wildlife friendly" fencing standards reduces the chance of mortality from animals becoming tangled in fencing and improves the opportunity for less restrictive movements throughout the area.

Black Bear

Black bear will likely be foraging in the habitat surrounding the project site, particularly when berries and acorns ripen. Personnel may be unfamiliar with wildlife in the area and should be informed of the potential for bear interactions. Personnel should not feed bears at any time. Bears should not be approached if encountered in the project area. All garbage and any food items should be removed from the site on a daily basis.

Mitigation of Habitat Loss to Birds

Approximately 5 acres of vegetation removal has previously occurred in the development of the project site. Implementation of an integrated vegetation and noxious weed management plan would improve the existing condition of the area surrounding the development. A reclamation plan should be implemented to reduce the continued establishment and/or spread of noxious

weeds in disturbed areas. Reclamation of disturbed areas not utilized as part of the facilities would decrease the presence of noxious weeds and replace foraging habitat for birds.

Small Mammals and Reptiles

There are no seasonal restrictions or special requirements for development related to these species.

PRESERVATION OF NATIVE VEGETATION

The best method to mitigate loss of wildlife habitat is to increase the availability of native forage in the form of grasses and shrubs. Native grasses would provide the greatest benefit for wildlife. Application of an integrated vegetation and noxious weed management plan would provide a basis for appropriate mitigation.

Treatment and Control of Noxious Weed Infestations

The highest priority for noxious weed management is to prevent the establishment of any noxious weed infestation of the project site. Noxious weeds aggressively compete with native vegetation. Most have come from Europe or Asia, either accidentally or as ornamentals that have escaped. Once established they tend to spread quickly because the insects, diseases, and animals that normally control them are absent. Prevention is especially valuable in the case of noxious weed management.

Noxious weeds are spread by man, animals, water, and wind. Prime locations for the establishment of noxious weeds include roadsides, construction sites, wetlands, riparian corridors, and areas that are overused by animals or humans. Subsequent to soil disturbances, vegetation communities can be susceptible to infestations of invasive or exotic weed species. Vegetation removal and soil disturbance during construction can create optimal conditions for the establishment of invasive, non-native species. Construction equipment traveling from weed-infested areas into weed-free areas could disperse noxious or invasive weed seeds and propagates, resulting in the establishment of these weeds in previously weed-free areas.

Several simple practices should be employed to prevent most weed infestations. The following practices should be adopted for any activity to reduce the costs of noxious weed control through prevention. The practices include:

- Prior to delivery to the site, equipment should be thoroughly cleaned of soils remaining from previous construction sites which may be contaminated with noxious weeds.
- If working in sites with weed-seed contaminated soil, equipment should be cleaned of potentially seed-bearing soils and vegetative debris at the infested area prior to moving to uncontaminated terrain.
- All maintenance vehicles should be regularly cleaned of soil.
- Avoid driving vehicles through areas where weed infestations exist.

The highest priority for noxious weed management is for the plumeless thistle and houndstongue that is prevalent on the project site. Reclamation and revegetation with native desirable plants should be implemented within the disturbed area of the project site once it is no longer needed.