

## **Attachment B: Sensitive Area Determination Study**

Under the COGCC Amended Rules regulations Marathon's 596-32C pad is not in a sensitive area, a sensitive wildlife habitat or restricted surface occupancy (RSO) area. Maps have been prepared by CK Associates that show there are no public water supply areas within ¼ mile or wells within 1/8 of a mile to the 596-32C pad. No known springs exist in the vicinity of 32C that would indicate shallow groundwater. There are no lakes, rivers, irrigation canals or identified wetlands in the immediate vicinity. There are surface waters nearby which have been sampled – Little Creek is within ¼ mile and House Log is within ½ mile of the pad.

The wildlife that has been mapped on the 32C location are Elk summer and overall range, sage grouse overall and production ranges, and mule deer summer and overall production. The Sage grouse production area is not applicable as a "sensitive habitat" since the permits to work in this area were issued prior to May 1, 2009 as stated in COGCC Amended Rules - 1205 REQUIREMENTS IN RESTRICTED SURFACE OCCUPANCY AREAS - Section C. Applicability.

Below are the definition of a sensitive area, sensitive wildlife habitat and restricted surface occupancy (RSO) area per COGCC Amended Rules -100 Series Definitions:

**SENSITIVE AREA** is an area vulnerable to potential significant adverse groundwater impacts, due to factors such as the presence of shallow groundwater or pathways for communication with deeper groundwater; proximity to surface water, including lakes, rivers, perennial or intermittent streams, creeks, irrigation canals, and wetlands. Additionally, areas classified for domestic use by the Water Quality Control Commission, local (water supply) wellhead protection areas, areas within 1/8 mile of a domestic water well, areas within 1/4 mile of a public water supply well, ground water basins designated by the Colorado Ground Water Commission, and surface water supply areas are sensitive areas.

**SENSITIVE WILDLIFE HABITAT** shall mean:

- mule deer critical winter range (being both mule deer winter concentration areas (that part of the winter range where densities are at least 200% of the surrounding winter range density during the same period used to define winter range in 5 out of 10 winters), and mule deer severe winter range (that part of the winter range where 90% of the individuals are located during the average 5 winters out of 10 from the first heavy snowfall to spring green-up)) (west of Interstate 25 and excluding Las Animas County);
- elk winter concentration areas (west of Interstate 25 and excluding Las Animas County);
- pronghorn antelope winter concentration areas (west of Interstate 25);
- bighorn sheep winter range;
- elk production areas (being that part of the overall range occupied by the females for calving) (west of Interstate 25 and excluding Las Animas County);

- Columbian sharp-tailed grouse and plains sharp-tailed grouse production areas (being an area that contains 80% of nesting and brood rearing habitat for any identified population);
- greater sage-grouse and Gunnison sage-grouse production areas (being an area that contains 80% of nesting and brood rearing habitat for any population identified in the Colorado Greater Sage-Grouse Conservation Plan (CDOW, 2008) or the Gunnison Sage-Grouse Range-Wide Conservation Plan (May 2005), respectively);
- lesser prairie chicken production areas (being an area that includes 80% of nesting and brood rearing habitat);
- black-footed ferret release areas;
- Bald Eagle nest sites and winter night roost sites; and
- Golden Eagle nest sites.

RESTRICTED SURFACE OCCUPANCY AREA shall mean the following:

- rocky mountain bighorn sheep production areas;
- desert bighorn sheep production areas;
- areas within 0.6 miles of any greater sage-grouse, Gunnison sage-grouse, and lesser prairie chicken leks (strutting and booming grounds);
- areas within 0.4 miles of any Columbian sharp-tailed grouse or plains sharp-tailed grouse leks (strutting grounds);
- areas within 1/4 mile of active Bald Eagle nest sites, Golden Eagle nest sites, or Osprey nest sites;
- areas within 1/2 mile of active Ferruginous Hawk nest sites, Northern Goshawk nest sites, Peregrine Falcon nest sites, or Prairie Falcon nest sites;
- areas located within 300 feet of the ordinary high-water mark of any stream segment located within designated Cutthroat Trout habitat; and
- areas within 300 feet of the ordinary high-water mark of a stream or lake designated by the Colorado Division of Wildlife as “Gold Medal.”