

– QUANTIFYING EXPLORATION WITHIN THE HQT

Finding

Methodology to quantify impacts from mineral exploration for CCS identified anthropogenic disturbance categories using the Habitat Quantification Tool (HQT) is not defined.

Improvement Recommendation

Summary

The SETT recommends mitigation for mineral exploration be assessed using the HQT to quantify the direct impacts for a minimum of 10 years. Indirect impacts will not be assessed. Mineral exploration (as defined in NRS 120A.096) includes exploration activities associated with CCS identified anthropogenic disturbances including geothermal, oil and gas, and mining. Exploration of five acres or less will not require consultation or mitigation through the CCS using the HQT. Two alternatives will be available to the project proponent: 1) a desktop analysis using 100% site scale habitat function in place of data collection, or 2) full HQT desktop and field data collection using standard CCS protocols. Both options would analyze the Plan of Operations (PoO) project area, or equivalent, rather than the proposed disturbance acreage due to the uncertainty in location of proposed roads, drill pads, etc.

Specific Improvement Recommendation

The SETT recommends that mineral exploration (hereafter referred to as exploration) be quantified using the HQT for direct impacts only. Exploration of five acres or less will not require mitigation using the CCS. Due to the uncertainty of indirect impacts from exploration, they will not be assessed. Exploration project timelines can be highly variable (e.g., several months to several years), but project sites must be reclaimed; therefore, the SETT recommends that the minimum time frame for credit obligation of an exploration project will be 10 years. This will account for the exploration activity plus time for reclamation.

The SETT recommends two options following an initial desktop analysis to analyze impacts using the CCS:

Option 1: The proponent may choose to use 100% site scale habitat function in place of conducting field work

Option 2: The proponent may choose to conduct field work and use field data to quantify the site scale habitat score

Although the total acreage for the proposed disturbance may be known, due to the uncertainty in where exploration roads, drill pads, and other surface disturbance will occur, the SETT recommends using the Plan of Operations project area, or equivalent, to quantify average current local scale habitat functional scores. The average habitat functional scores for the PoO project area will be applied to the total acreage of the proposed disturbance, which can be in its entirety or phased. The PoO project area will generally be of a greater extent than the proposed surface disturbance, which allows for greater flexibility when analyzing a proposed disturbance that may not be spatially explicit. However, this area should encompass the smallest extent possible of where proposed disturbance is expected and authorized to occur to minimize the analysis area.

Transects would be selected randomly by the SETT according to CCS protocol within the PoO project area and based on the PoO project area acreage.

Rationale Supporting Recommendation Details

The CCS Manual and State Plan identify “mineral development and exploration and its associated infrastructure” as anthropogenic disturbances. Vegetation removal associated with exploration typically results in disturbed or bare soil, fragmentation of habitat, and may act as a vector for noxious and invasive plants within sage-grouse habitat. Exploration however, is not assigned any quantifiable impact within the HQT. As a comparison, mining is assigned 100% weight and a distance of 6km; oil and gas is assigned 100% weight and a distance of 3km; low use roads are 25% weight and 1km (all weights and distances are found in Table 2 of the Scientific Methods Document).

Exploration presents several issues that make this disturbance type different from other CCS defined disturbance categories. Exploration is typically of shorter duration and can be seasonal. Drilling is expected to occur within a defined area, but drill pads will have activity for fairly short periods of time before moving on to the next drill site. Given the shorter duration of exploration, science is not available to justify a 30-year term. CCS identified anthropogenic disturbances have a 30-year minimum term; the minimum term for prorated uplift credit projects has been set at 10 years to account for the conservation action and expected measurable uplift of that action. While it is possible that exploration activities and reclamation time could be less than 10 years, the SETT proposes a minimum 10-year term to account for vegetative treatments or re-treatments that will allow sufficient time for reclamation actions to be considered adequately rehabilitated.

Option 1: If option 1 is selected, 100% site scale habitat function will replace the Habitat Suitability Indices in the Calculator; this assumes 100% functionality and will yield the most conservative estimate. This option is already an alternative approach for debit project proponents in the CCS who choose to forgo field data collection. This option allows a proponent to complete the full HQT at any time during the year in a short period of time.

Option 2: If option 2 is selected, certified verifiers will collect the site scale information by delineating map units and running habitat transects within each map unit using standard CCS policy and guidelines. The map unit acreages will be area weighted and applied to the total acreage of proposed surface disturbance. If the exact disturbance footprint is known, the SETT will work with the proponent to define a large enough and acceptable area to allow transects to be placed within the project area. Transects will be run through all map units.

Currently active exploration that requires reclamation bonding will be analyzed as an existing exploration disturbance, receiving no habitat value for the direct footprint, as analyzed according to HQT protocol. To address exploration prior to when reclamation bonding was required in 1989, these areas will require documentation (e.g. evidence of permits, photo documentation) in order to be classified as existing disturbance. If option 1 is selected, the proportion of historically disturbed habitat in the PoO will be applied to the proposed disturbance within the PoO. For example, if 100 acres of proposed disturbance within a 1,000-acre PoO boundary contained 50 acres of previously disturbed habitat from mining, then 5 acres will be removed from the proposed disturbance of 100 acres. So, 95 acres in total will be analyzed for the proposed exploration. If option 2 is selected, the area identified as historical exploration will be its own map unit, where transects will be sampled according to HQT protocol.