

Estimate of American Burying Beetle Oil and Gas Industry Conservation Plan Implementation Costs

September 2014

Funding to satisfy the requirements in Section 6.0 of the ICP includes the following:

1. POST-CONSTRUCTION RESTORATION

Cost per acre to restore area of impact to pre-project condition:

Soil stabilization outside of growing season, replacement of top soil, relief of soil compaction, re-establishment of vegetation, and inspection for/treatment of invasive species (e.g., plants, fire ants).

Acres of Temporary or Permanent Cover Change impacts _____ X average cost of restoration \$ _____ = \$ _____

2. CHANGED CIRCUMSTANCES (requiring additional funding)

A. Section 5.1.1; Assumption: Areas with "temporary impacts" or "permanent cover change" become suitable for ABB use within 5 years of disturbance – If restoration of ABB habitat cannot be considered temporary because habitat does not become suitable for ABB use within 5 years of initial disturbance, Permittees must increase mitigation ratios for all such impacts that would have previously been considered "temporary" to the ratio for "permanent." For each acre not restored within 5 years, a mitigation increase of up to 1.25 acres per acre of impact (temporary impact outside of a CPA to permanent impact within a CPA) may be required. NOTE: The Service does not view this cost as duplicative of #1 - Post Construction Restoration because Permittees may attempt, but possibly fail to restore areas with temporary or permanent cover change impacts within 5 years. In these cases, Permittees may be required to fund both the initial restoration attempts AND increase their mitigation to the ratio for permanent impacts.

OR

Section 5.1.2; Fire, Flood, Drought, and Tornadoes – In the event that fire caused by a Permittee's activities substantially decreases the success of restoration and vegetation re-establishment efforts within 5 years of the impact start date, additional restoration actions will be repeated as necessary to restore ABB habitat within these areas within 5 years from the initial impact. If ABB habitat cannot be restored within 5 years of the initial impact due to the fire, Permittees will increase mitigation ratios for these areas to be equivalent to ratios for permanent impacts. See section 5.1.2 of the ICP for

additional information on post-construction restoration.

Acres of Temporary or Permanent Cover Change that could need Permanent mitigation:

Acres of Temporary or Permanent Cover Change impacts _____ X increase of mitigation from Temporary to Permanent (up to) 1.25 acres X one mitigation acre (estimated from typical cost of ABB Conservation Bank Credit)
\$ _____ = \$ _____

- B. Section 5.1.1; *Assumption: Vehicle use, tractor equipment, and implements used to maintain vegetation and inspect ROWs, when conducted during the ABB inactive season, and while maintaining vegetation at 8 inches or higher does not cause additional take of ABBs* – If use of tractor equipment in certain soil types with certain conditions would cause permanent removal of occupied ABB habitat, Permittees must use the mitigation ratio for “permanent” in areas with these soil types and/or conditions that require the use of tractor equipment for new or ongoing impacts.

Acres of impacts for operations and maintenance from projects authorized under the IPP (Temporary or Permanent Cover Change) _____ X increase of mitigation from Temporary to Permanent (up to) 1.25 acres X one mitigation acre (estimated from typical cost of ABB Conservation Bank Credit) \$ _____ = \$ _____

For existing (prior to ICP) operations and maintenance, the total number of acres impacted _____ X Permanent mitigation (up to 1:2) 2 acres (for any impacts not previously mitigated at a Temporary ratio) X one mitigation acre (estimated from typical cost of ABB Conservation Bank Credit) \$ _____ = \$ _____

- C. Section 5.1.5; *Emergency Repairs Requiring Habitat Clearing* – In the event of an Emergency that necessitates clearing after ABB habitat has been restored, and where these impacts are not covered by an approved IPP (see Section 7.0 in the ICP), the Permittee will notify the Service within 7 days of performance of the impacting activity that occurs in known or potential habitat for the ABB. Upon notification, the Service will determine whether the activity resulted in a changed circumstance with respect to the ABB. If the Service determines that a changed circumstance has occurred and needs to be mitigated, Permittees will provide mitigation to adequately cover impacts to ABB habitat.

Total of acres of mitigation from new impact _____ X Anticipated cost of one mitigation acre (estimated from typical cost of ABB Conservation Bank Credit)
\$ _____ = \$ _____

3. OTHER IMPLEMENTATION COSTS

Other implementation may include, but is not limited to: annual reports (compliance monitoring); biological/effectiveness monitoring (effectiveness on those mitigation lands for which the Permittee is responsible); and minimization measures.

Total of:

Average annual cost of biological/effectiveness monitoring (if applicable) \$

_____ X number of years covered by the permit = _____, plus

Average cost of compiling the annual report (compliance monitoring) \$ _____ X

number of years covered by the permit = _____, plus

Other minimization measures \$ _____, for a total of

\$_____.

TOTAL ESTIMATION OF COST (from calculations above)

1. Estimated Post Construction Restoration Cost _____

2. Estimated Chanced Circumstances Cost (A+B+C) _____

3. Estimated Other Implementation Costs _____

TOTAL: _____