

The following section supplements the analysis found in Chapter Three, [Section 3.7 - Special Biological Diversity Features](#) of the Draft EIS beginning on page 3.109.

DIRECT AND INDIRECT IMPACTS

Impacts to special biological diversity features from oil and gas development on all currently unleased SJPL within the GSGP area could occur at the project level if oil and gas development (primarily construction of well pads and roads) were to occur. Impacts would be the same as those described in the Draft EIS including impacts to old growth forests (including the removal of more old growth attributes, more fragmentation, and more change to their composition, structure, and function) and Arizona fescue mountain grasslands (including a decrease in the abundance of Arizona fescue, which is special status species on SJPL). While the GSGP projects have four times the development analyzed in the Draft EIS, impacts would still be minimal due to stipulations developed to avoid or minimized impacts at the project level. Implementation of design criteria detailed in the Draft LMP (that avoid special biological diversity features) and stipulations (including NSO stipulations for old growth forests) would protect and minimize adverse impacts to special biological diversity features. (See [Design Criteria](#) in the Draft LMP for a listing of these mitigation measures.)

Alternative Comparison: Impacts to special biological diversity features on currently unleased lands within the GSGP area would not occur in Alternatives B, C, and D since they all have NSO stipulations. While Alternative A does not have the same NSO protective stipulations, the impacts would be similarly mitigated through COA based on the standards, guidelines and additional guidance referenced in the [Design Criteria](#) in Part Three of the Draft LMP. The No Lease Alternative would not allow any new leases on lands currently unleased and thus there would be no ground-disturbing impacts to special biological diversity features.

CUMULATIVE IMPACTS

The Paradox Basin is the cumulative impacts boundary for special biological diversity features. Past management activities within the Paradox Basin impacted old-growth forests and Arizona fescue mountain grasslands similar to those described above. In addition to the direct impacts to special biological diversity features on currently unleased federal lands, there are also projections for more development on lands already leased. An additional 1,786 acres of disturbance could result from future development on lands currently held under lease on BLM and USFS mineral estate (1,166 acres from future gas shale development, and approximately 620 acres from conventional gas development). Direct impacts to special biological diversity features from oil and gas development on the already leased lands within the GSGP area would be the same as those described for unleased lands. Mitigations for lands currently held under lease would also be similar to the mitigations described for unleased lands and would be specified during project level NEPA analysis using COA based on the Draft LMP, Part Three (see [Design Criteria](#) in the Draft LMP for a listing of these mitigation measures).

Overall, even if all the foreseeable future management activities were to occur, combined with all past and current management actions, the resulting ground disturbance would only affect a small amount of acres with special biological diversity features (old-growth forests and Arizona fescue mountain grasslands) because of the avoidance and protections provided to these resources from stipulations and design criteria.