

Appendix G

**Mitigation Measures Not Included
in the RMP Amendments and the
Rationale for Not Including Them**

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These mitigation measures were included in the FEIS as additional action which could reduce the impacts of CBM operation on certain resource values. These mitigation measures were not accepted for incorporation into the RMPs for a variety of reasons as outlined below.

Reference numbers apply to those in Chapter 4 of the FEIS.

4. Disturbed channel beds would be reshaped to their approximate original configuration and stabilized by appropriate means.

Rationale: This measure was redundant with #20 and was already covered in the SCOA brought forward from previous NEPA Appendix C, C-7 #2.

5. Areas where natural springs are present, operators would be required to identify, inventory, and monitor these springs as part of their water management plan development.

Rationale: This is not a mitigation measure but is required as part of the WMP and springs are addressed in the Mitigation, Monitoring and Reporting Plan (MMRP).

7. Concerns regarding the potential for discharges of CBM water to reach the main stems would be minimized by locating discharge outfalls higher in ephemeral and intermittent drainages or near the drainage divide.

Rationale: Guidelines for placement of water discharge points are provided in the WMP. BLM has the authority through Onshore Order #7 to control the placement of water discharge points based on their physical effects on the land and land uses. The placement of water discharge points would also be addressed by WDEQ in the issuance of the NPDES permit to meet water quality standards. Therefore, these concerns will be addressed as appropriate prior to approval of permits.

8. Land application of produced water has the potential to produce negative, long term impacts to soil physical and chemical properties if not properly managed. Proposals to land apply CBM produced water on federal projects must include the following information as part of the exploratory and/or permanent water management plans:

Site characterization: The site characterization must include field investigations of soils and vegetation. The site will be described in detail, and soil samples will be collected and analyzed to determine important soil chemical and physical properties. Site descriptions will include maps, vegetation descriptions, soils descriptions, laboratory analysis and location of proposed

application sites. Photo documentation of the site will be included. Laboratory analysis of produced water will also be included with the site characterization study.

Project description: The project description must include the proposed method(s) of water application, application rates and schedules and physical layout of application areas. Complete maps of the application infrastructure will be included. The description will include details on any soil or water amendments that will be used or physical soil manipulations that will be planned. Project descriptions will demonstrate that land application is feasible given the results of the site characterization.

Monitoring Plan: Periodic monitoring of soils and vegetation will be required of the operator to assure that negative impacts are not occurring, or are being remediated. Monitoring must include soil sampling and laboratory analysis.

Winter operations: Detail practices that will be used to prevent the buildup of ice on the soil surface during sub freezing temperatures.

Mitigation Plan: A plan must be developed which outlines mitigation measures that will be implemented by the operator in the event negative soils or vegetation impacts are detected during routine monitoring. Potential mitigation measures might include, but not be limited to, soil or water amendments, physical manipulation or vegetative treatments.

These criteria are general in nature, and must be adjusted to site-specific conditions. Detailed soil sampling criteria have not yet been developed, so project proposals will be evaluated on a case-by-case basis during the interim. More specific guidance/requirements may be forthcoming as the result on ongoing research and coordination.

Rationale: This is not mitigation but an administrative requirement and is incorporated into the WMP.

9. The Companies would segregate soil horizons during excavation of all project facilities and avoid mixing of soil horizons during stockpiling and redistribution of soils.

Rationale: This measure was already covered in the SCOA brought forward from previous NEPA Appendix C, C-3 #3.

13. Should human remains be unearthed during construction, procedures outlined in the human remains plan (Appendix L of the FEIS) would be followed.

Rationale: This measure was already covered in the SCOA brought forward from previous NEPA Appendix C, C-4, #15, and has been edited to include the direction in Appendix L of the FEIS.

14. At a minimum, all areas of proposed ground disturbing activity would be intensively inventoried for cultural resources in conformance with minimal BLM Class III survey standards at the APD, POD, or SN phase of each proposed Federal undertaking...

Rationale: This is not mitigation but is already an administrative requirement.

15. Companies would be required to submit an integrated pest management plan (Appendix F) as a component of the APD and POD approval process.

Rationale: This is not mitigation but an administrative requirement.

16. Any mulch and seed used for reclamation needs to be certified weed free and current year tested.

Rationale: This measure was already covered in two COAs brought forward from previous NEPA Appendix C, C-8 #7 and C-9 #18. They have also been edited for clarification.

30. Stream channel monitoring for erosion, degradation, and riparian health would be conducted on an annual basis. Surveys would include no less than one stream reach above all CBM discharges and several stream reaches below CBM discharges. Where monitoring occurs, a station would be placed above all CBM outfalls and one below all CBM outfalls, at least on main stems.

Rationale: This is monitoring and has been incorporated into the MMRP for implementation.

31. Sub-watersheds that would receive CBM produced waters and would be monitored for macroinvertebrates and fish populations.

Rationale: This is monitoring and has been incorporated into the MMRP for implementation. BLM only has the authority to conduct this monitoring on federal mineral development.

75. Increase the distance between a CBM facility and an existing noise-sensitive receptor. As shown in the analysis, noise decreases by 6 dBA with every doubling of distance from a source. For instance, if the noise were 65 dBA at 100 feet from a CBM source, the noise would decrease to 59 dBA at 200 feet from the source and to 47 dBA at 800 feet from the source.

Rationale: This is redundant and is covered by a revised measure #77.