Strategies Evaluating the Effectiveness of Reclamation Success on Native Landscapes

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This study examined three pervasive issues that impacted native ecosystems.

o Numerous land use practices including oil and gas activities have led to the modification of native grasslands both the within the Northern Fescue Region and the Foothills Fescue Region. Is it possible to eradicate non-native species from well leases and pipelines that were previously seeded to non-native forages, and what is the potential for invasive non-native species to convert rough fescue grasslands to non?native communities and can they be restored?

o Can specific salt and hydrocarbon tolerant plant species be used to remediate areas affected by pipeline breaks or produced salt water and hydrocarbon spills?

o A critical part to reclamation is to have appropriate plant materials. Does industry have access to native species? What species are needed and how are they efficiently brought into commercial production?

Non-native invasive species such as Bromus inermis

(Smooth brome grass), Agropyron pectiniforme (Crested wheatgrass), Phleum pratense (Timothy), Cirsium arvense (Canada thistle can be eradicated from disturbed sites that were previously seeded to non-native forages. Properly timed and applied herbicide applications followed by mowing and followed by seeding with appropriate native species may provide an effective solution in restoring these grasslands. Once seeded to native species, the successional pathways and the influence of non-native species on the area remains uncertain due to other anthropogenic activities on the landscapes.