



# Shrub Reclamation on BLM-Managed Lands in the Bighorn Basin

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BLM -Cody Field Office



## BLM Reclamation Goals

- Multiple Uses – grazing, recreation, etc
- Land stability – water, soil, vegetation
- Wildlife Habitat
- Visually A-OK

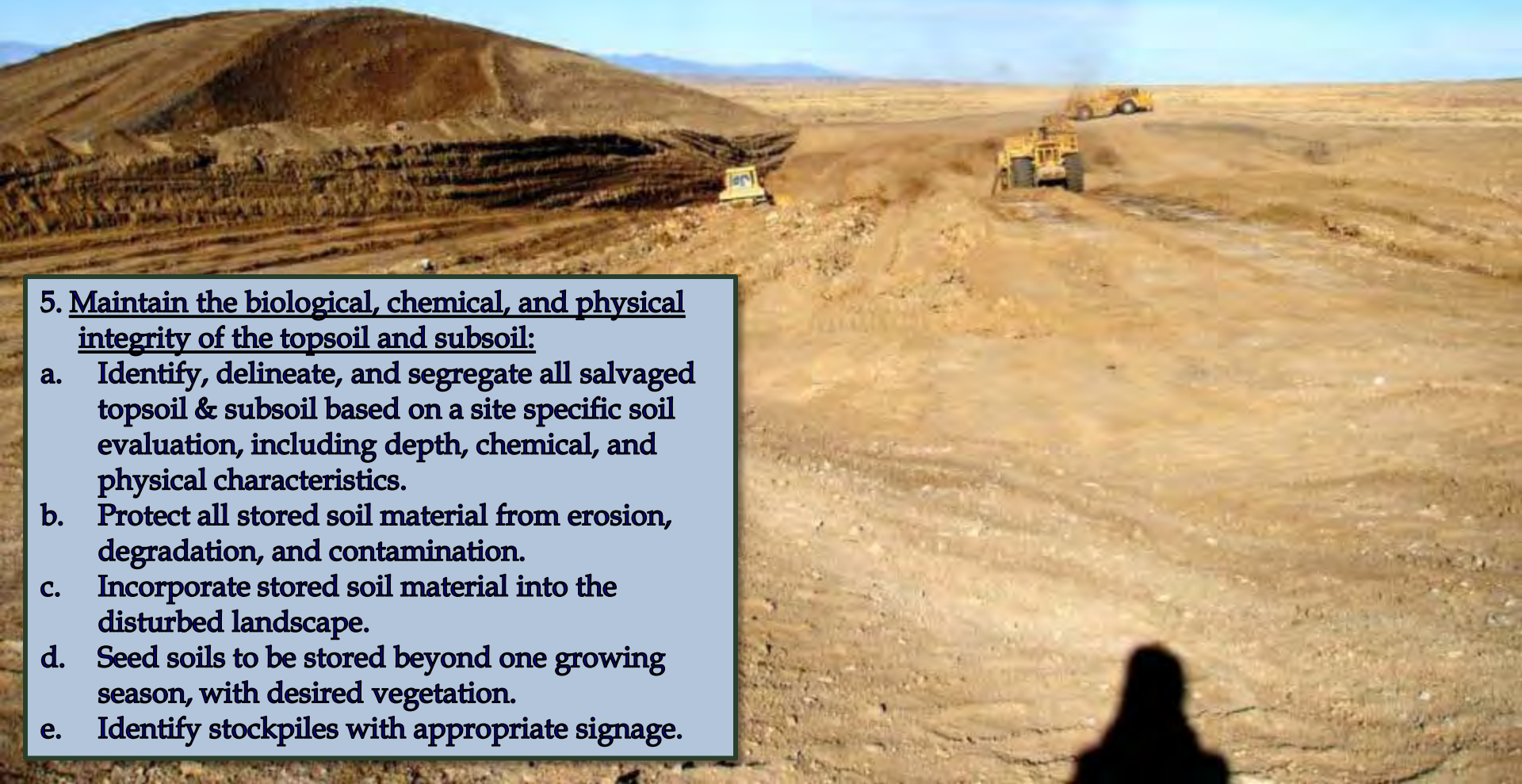




# Wyoming Reclamation Policy

## 5. Maintain the biological, chemical, and physical integrity of the topsoil and subsoil:

- a. Identify, delineate, and segregate all salvaged topsoil & subsoil based on a site specific soil evaluation, including depth, chemical, and physical characteristics.
- b. Protect all stored soil material from erosion, degradation, and contamination.
- c. Incorporate stored soil material into the disturbed landscape.
- d. Seed soils to be stored beyond one growing season, with desired vegetation.
- e. Identify stockpiles with appropriate signage.





# Wyoming Reclamation Policy



## 1. Manage all waste materials:

- a. Segregate, treat, and/or bio-remediate contaminated soil material.
- b. Bury only authorized waste materials on site. Buried material must be covered with a minimum of three feet of suitable material or meet other program standards.



# Wyoming Reclamation Policy

## **7. Establish a desired self-perpetuating native plant community:**

- a. Establish species composition, diversity, structure, and total ground cover appropriate for the desired plant community.
- b. Enhance critical resource values (e.g. wildlife, range, recreation, etc.), where appropriate, by augmenting plant community composition, diversity, and/or structure.



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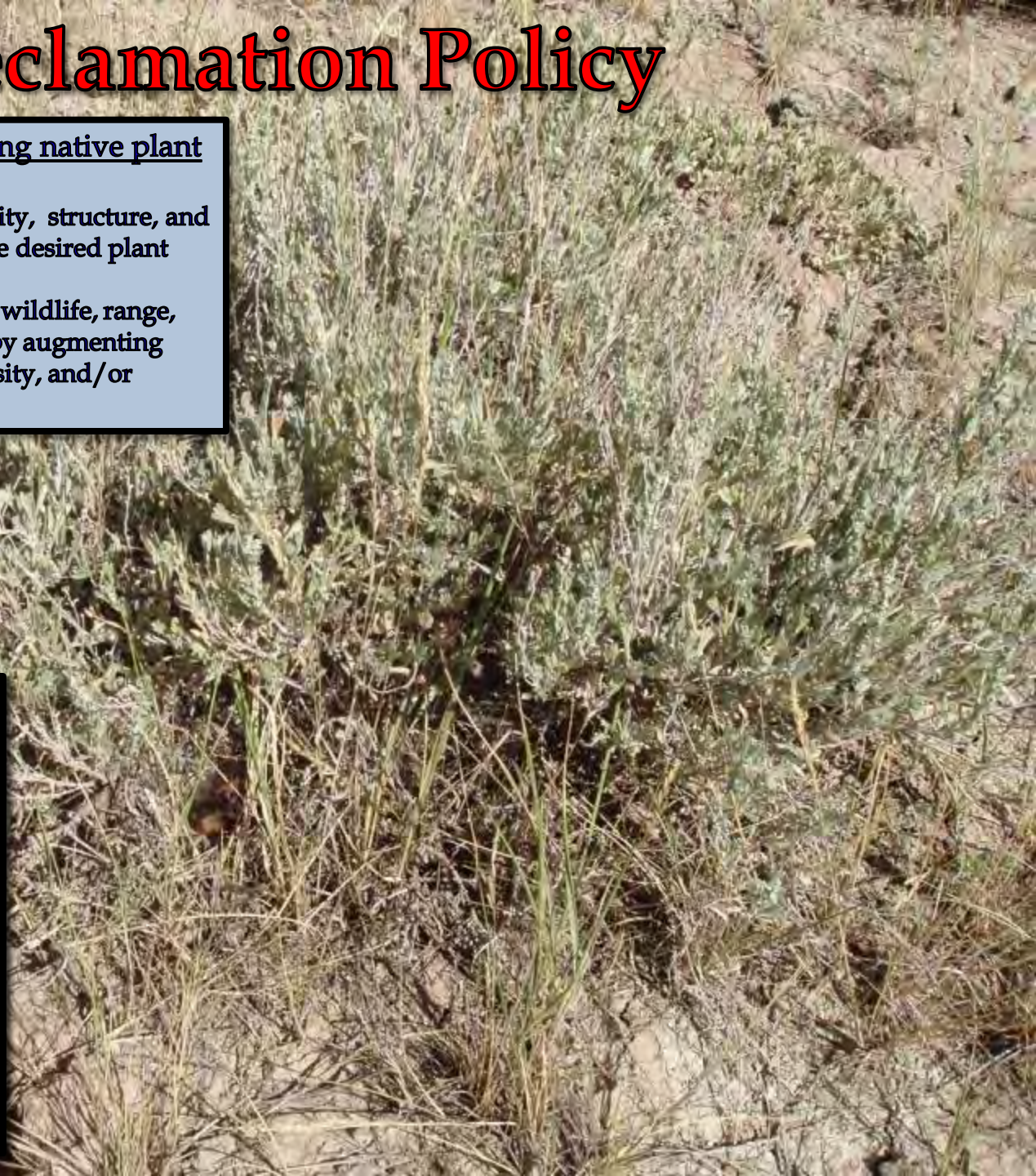
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**Wyoming Reclamation Policy**



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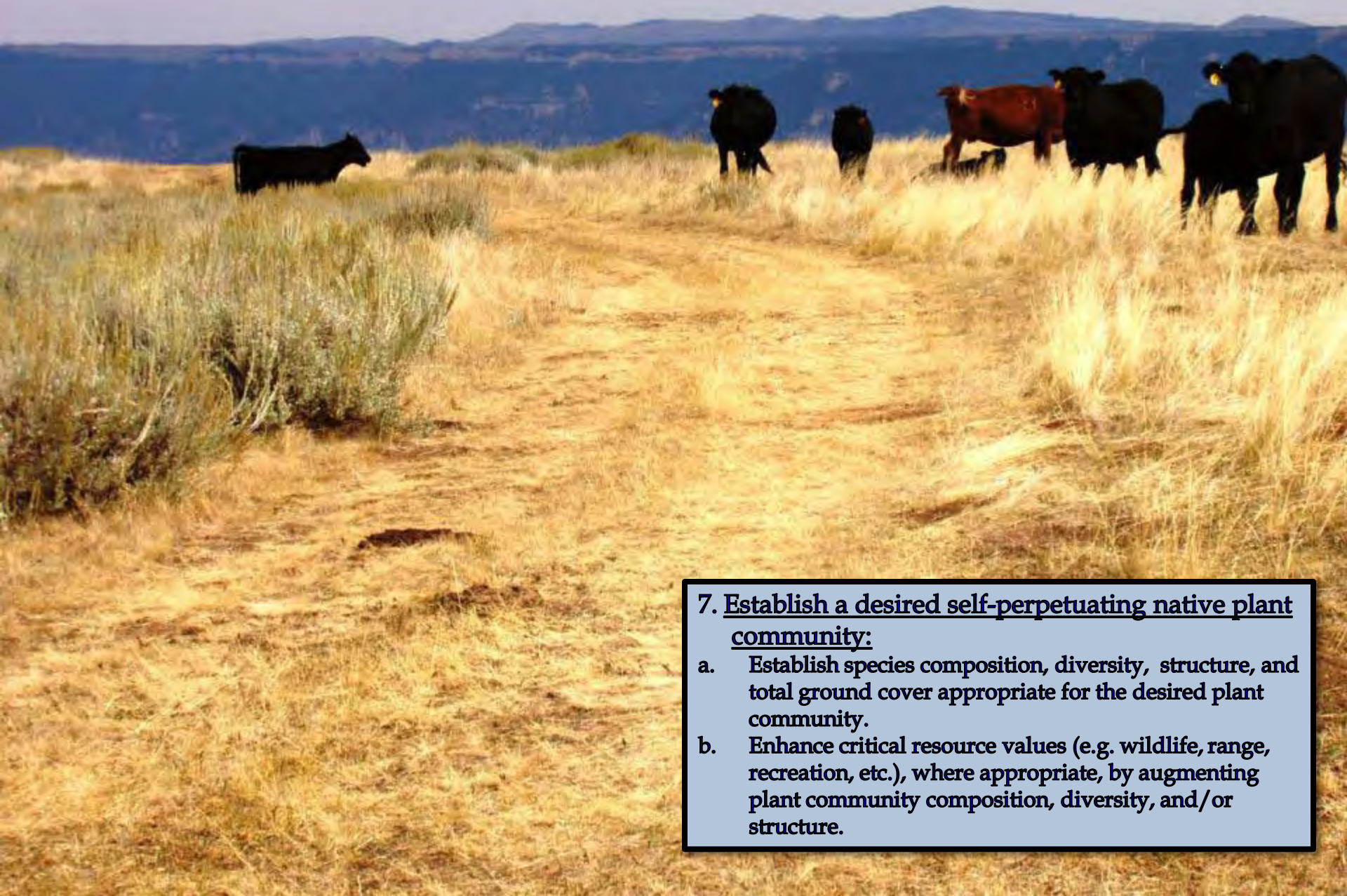
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# Wyoming Reclamation Policy



[http://monty-python-and-the-holy-grail.com/scenes/scene\\_19.html](http://monty-python-and-the-holy-grail.com/scenes/scene_19.html)

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7. Establish a desired self-perpetuating native plant community:

- c. Select genetically appropriate and locally adapted native plant materials based on the site characteristics and ecological setting.
- d. Select non-native plants only as an approved short term and non-persistent alternative to native plant materials. Ensure the non-natives will not hybridize, displace, or offer long-term competition to the endemic plants, and are designed to aid in the re-establishment of native plant communities.



# Wyoming Reclamation Policy



## Seed Mix Variety!

- Gardner's Saltbush
- Fourwing Saltbush
- Rabbitbrush
- Sagebrush





➤ 14 - 28 lbs/acre

➤ Seeding rates need to double if you are broadcast seeding



**Wyoming Reclamation Policy**



# BLM Seed Policy in IM-2006-073

## Policy/Action:

"All Field Offices are required to use seed on public lands that contain no noxious weed seed and meets certified seed quality. All seed to be applied on public land must have a valid seed test, within one year of acceptance date, from a seed analysis lab by a registered seed analyst (Association of Official Seed Analysts). The seed lab results shall show no more than 0.5 percent by weight of other weed seeds; and the seed lot shall contain no noxious, prohibited, or restricted weed seeds according to State seed laws in the respective State(s). The seed procured for use on public land will meet the Federal Seed Act criteria. Seed may contain up to 2.0 percent of "other crop seed" by weight which includes the seed of other agronomic crops and native plants; however, a lower percent of other crop seed is recommended. Copies of the seed lab test results, including purity and germination (viability) rate, must be forwarded to the appropriate BLM office prior to seed application. If the seed does not meet the BLM and State/Federal standard for noxious weed seed content or other crop seed allowance, it shall not be applied to public land. All seed test results must be retained in the seeding project file."

"Straw or mulches applied as part of seeding, stabilization, rehabilitation, or restoration projects on public lands must be certified to be weed seed-free."





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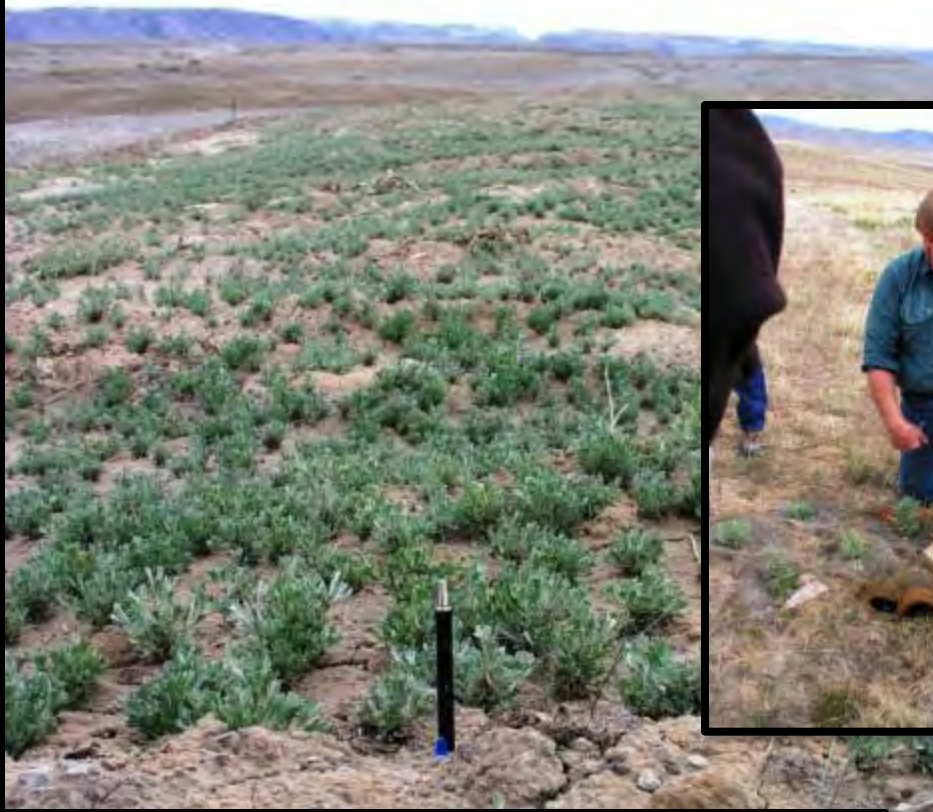
# Wyoming Reclamation Policy



- Pitters
- Drill seeding
- Hydroseeding



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# Wyoming Reclamation Policy

- 
- Hydroseeding
  - Mulching - Crimping
  - Soil Amendments
  - Jute Netting
  - Seed Coating
  - Planting Tubelings
  - Nurse Crops



# Improving Sagebrush Reclamation in Bentonite Mining Areas in the Bighorn Basin





# Windy Flats

## Gravel Pit



Jack Mononi



- Target eastern edge
- Plant multiple rows
- Drilled 9" holes
- Mixed in ceramic
- Add gel pack
- Plant tubeling
- Create wee berm
- Top off with mulch
- Water at 2 & 4 weeks



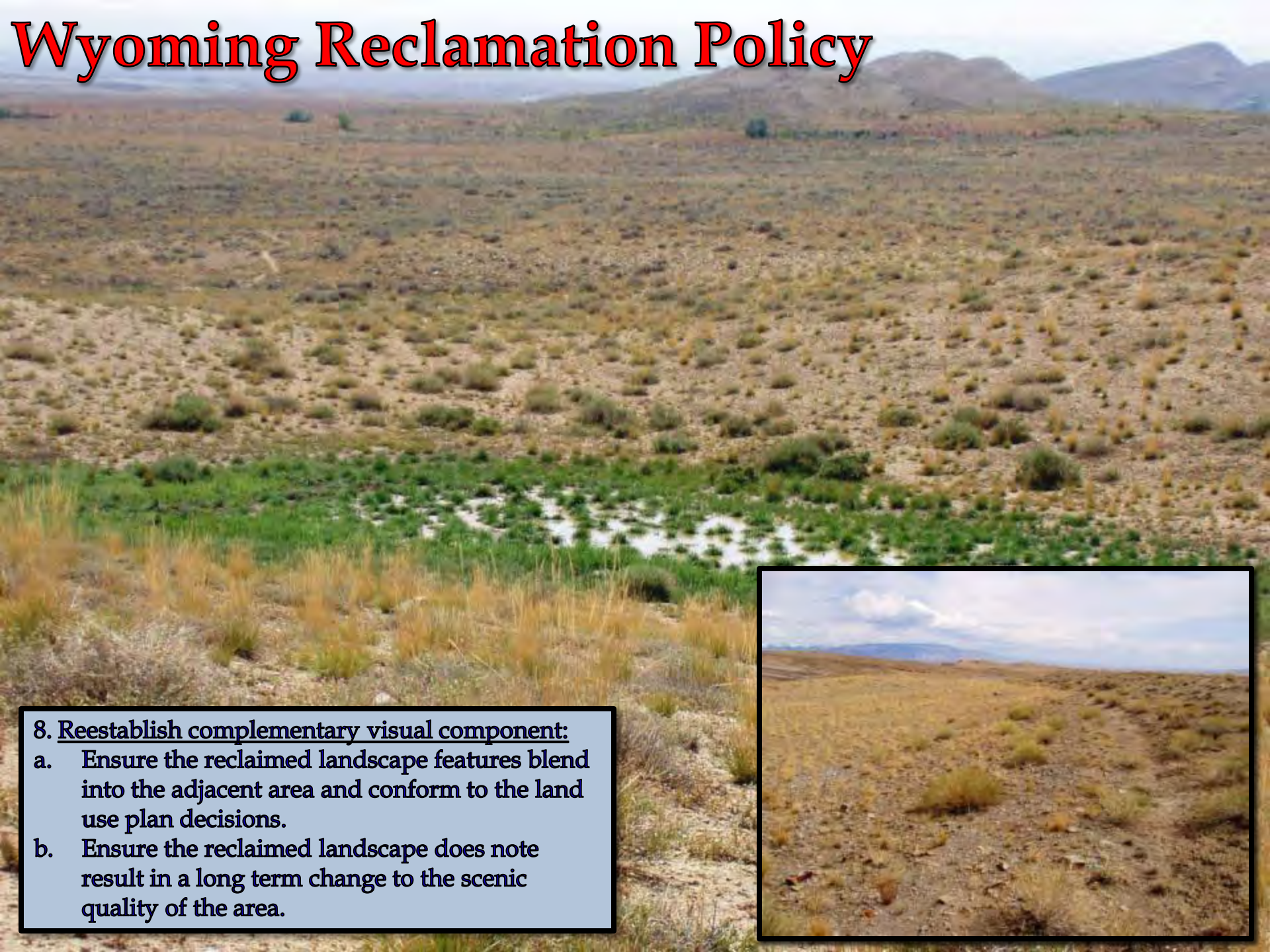


# Windy Flats Gravel Pit





# Wyoming Reclamation Policy




## **8. Reestablish complementary visual component:**

- a. Ensure the reclaimed landscape features blend into the adjacent area and conform to the land use plan decisions.
- b. Ensure the reclaimed landscape does not result in a long term change to the scenic quality of the area.





# Bond Release

A group of five people is walking away from the camera across a vast, flat, arid landscape. The terrain is covered in sparse, dry vegetation and scattered rocks. The sky is clear and blue. The people are dressed in casual work clothes, including shirts and jeans. They are walking in a loose line across the middle ground of the image.

**Supplement to MOU No. WY 19 Between the USDOJ-BLM and the WDEQ - LQD for Management of Surface Mining and Exploration for Locateable Minerals on Public Lands**

**II (A) Bonding**

Prior to bond release or reduction the LQD shall notify the BLM and schedule a joint inspection. This inspection on location shall determine if all or portions of the reclamation work has been completed, and all the requirements have been met as described in the permit, license, notice, or plan.

**D.2.b.** The LQD shall hold all bonds until release is authorized in writing by both agencies.



A photograph of a lizard and a scorpion on cracked, dry earth. The lizard is in the upper left, and the scorpion is in the lower right. The text "QUESTIONS?" is overlaid in the center in a red, outlined font.

**QUESTIONS?**