



Eco-Economic Perspectives

Integrating a circular economy model to facilitate a conversation around long-term goals and strategies to protect the sacred land in San Juan County

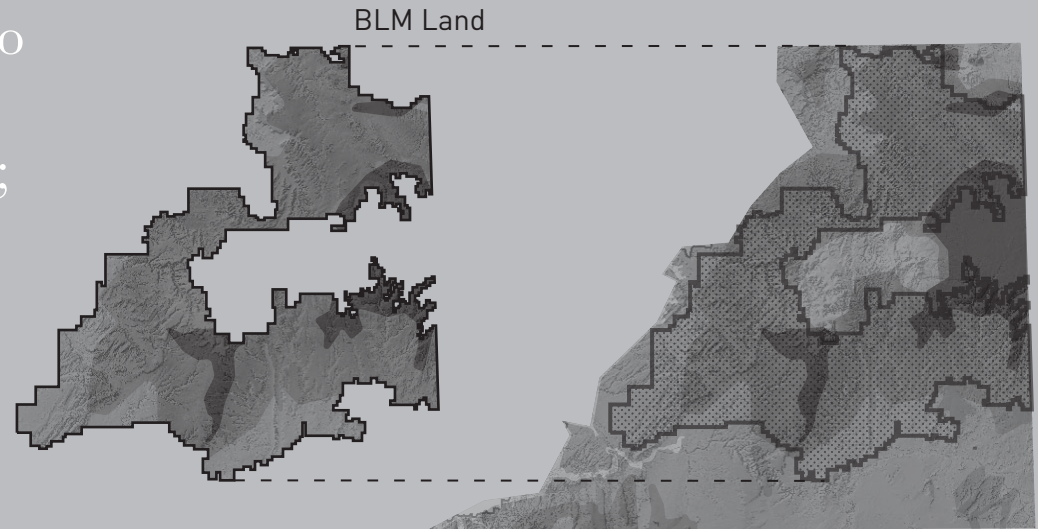
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Land cover overview

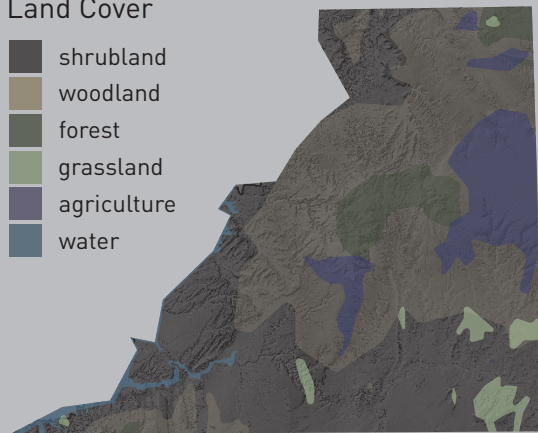
“Late carbon-based society has tended to render and define rural areas as **post-modern consumption spaces**; places which individuals can choose for residence, business, or play.”

Lawrence Kitchen &
Terry Marsden



Land Cover

- shrubland
- woodland
- forest
- grassland
- agriculture
- water

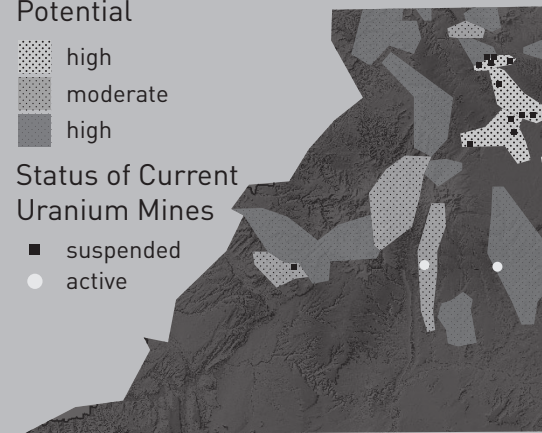


Uranium District Output Potential

- high
- moderate
- high

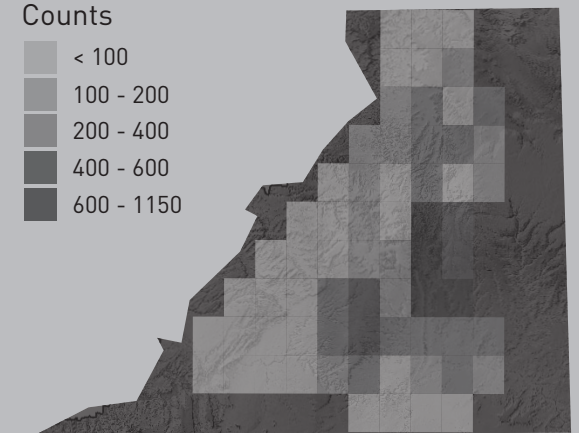
Status of Current Uranium Mines

- suspended
- active

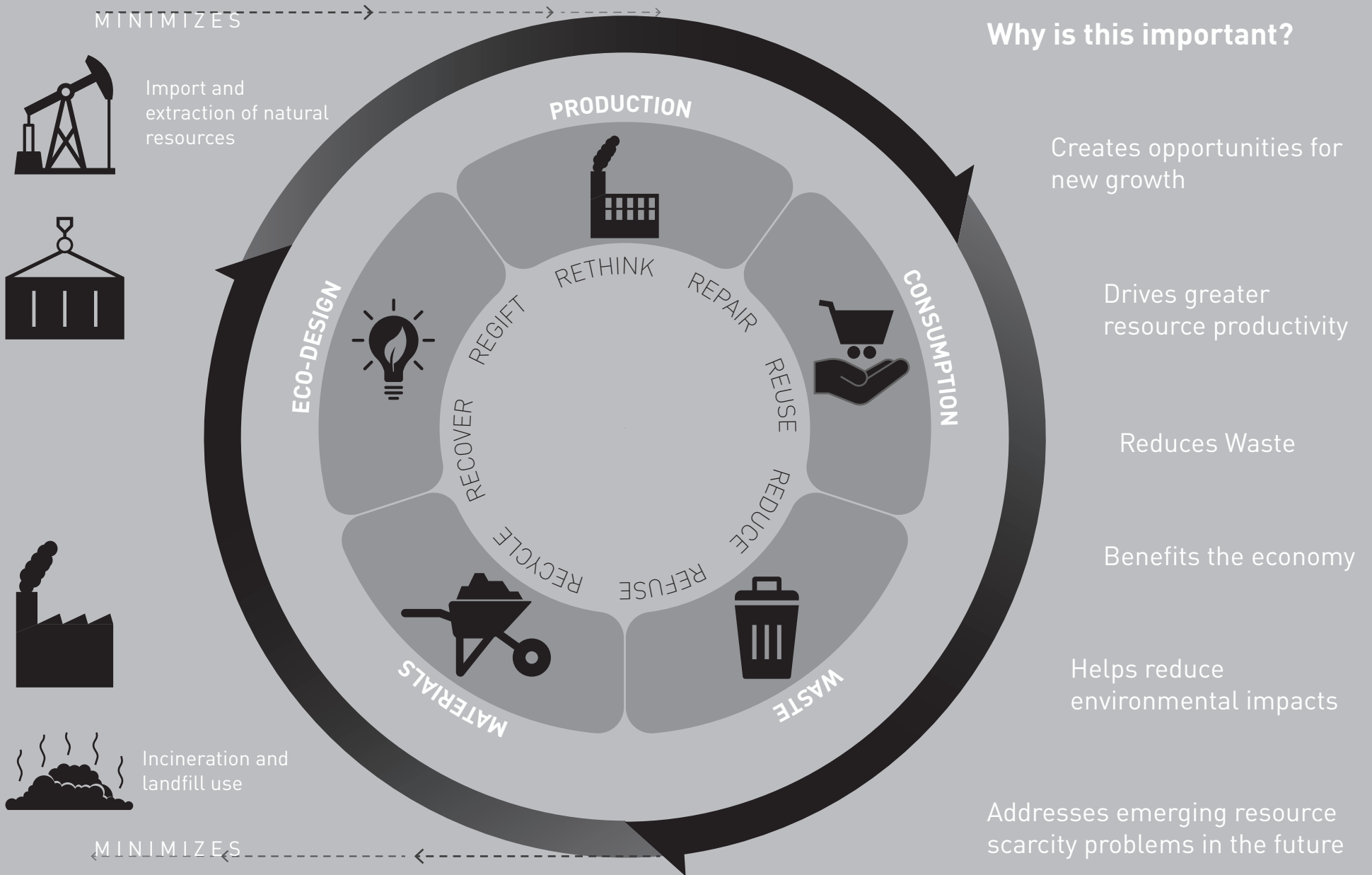


Archaeological Site Counts

- < 100
- 100 - 200
- 200 - 400
- 400 - 600
- 600 - 1150



Circular Economy



Adding value to waste

“You never over-harvested or -hunted, and what you did take, **you would use every bit to honor the earth and life you took**”

Jamie Okuma
Indigenous Artist

Agricultural waste

Civil waste

Industrial waste

Human waste

Biological waste



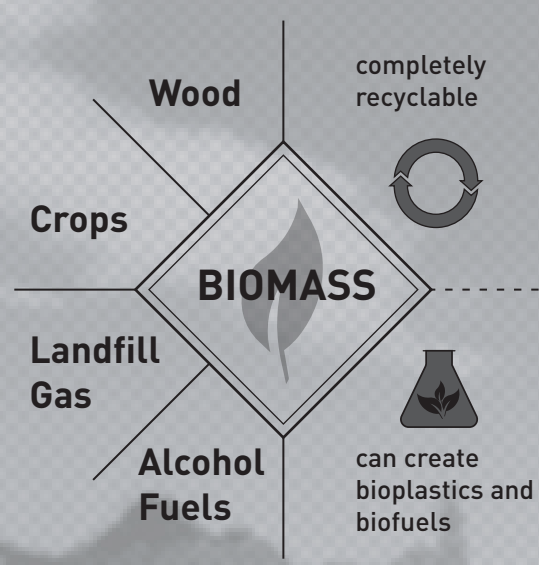
How can we use biomass circularly?

The term includes raw material from plant or animal origin, including crops from agriculture, water cultivation, and forestry.

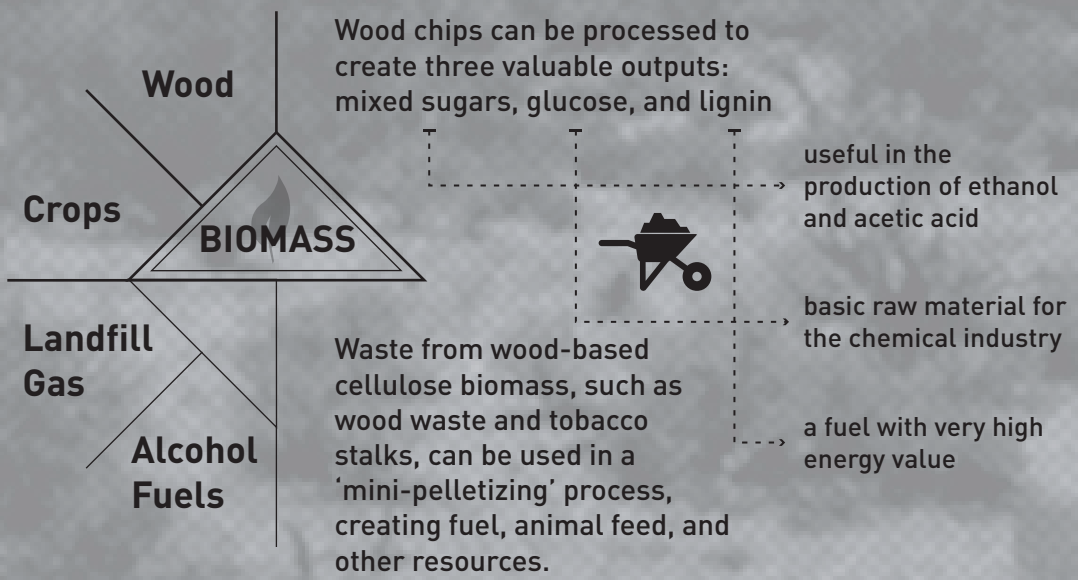
Biomass is completely recyclable and can be used as food, fuel, or material.

Closing material cycles reduces costs of waste and purchasing, while improving the condition of the environment.

Biomass recycling



- Using resources reclaimed from the ground rather than importing them from elsewhere.
- Can be converted into fuel, fibers, or industrial chemicals.
- Raw materials from sewers can be extracted and processed into products such as fertilizer for growing new food.
- On-farm recycling can be circular when cows feed on grass in the meadow while their manure keeps the land fertile, eliminating the need to buy food and manure.

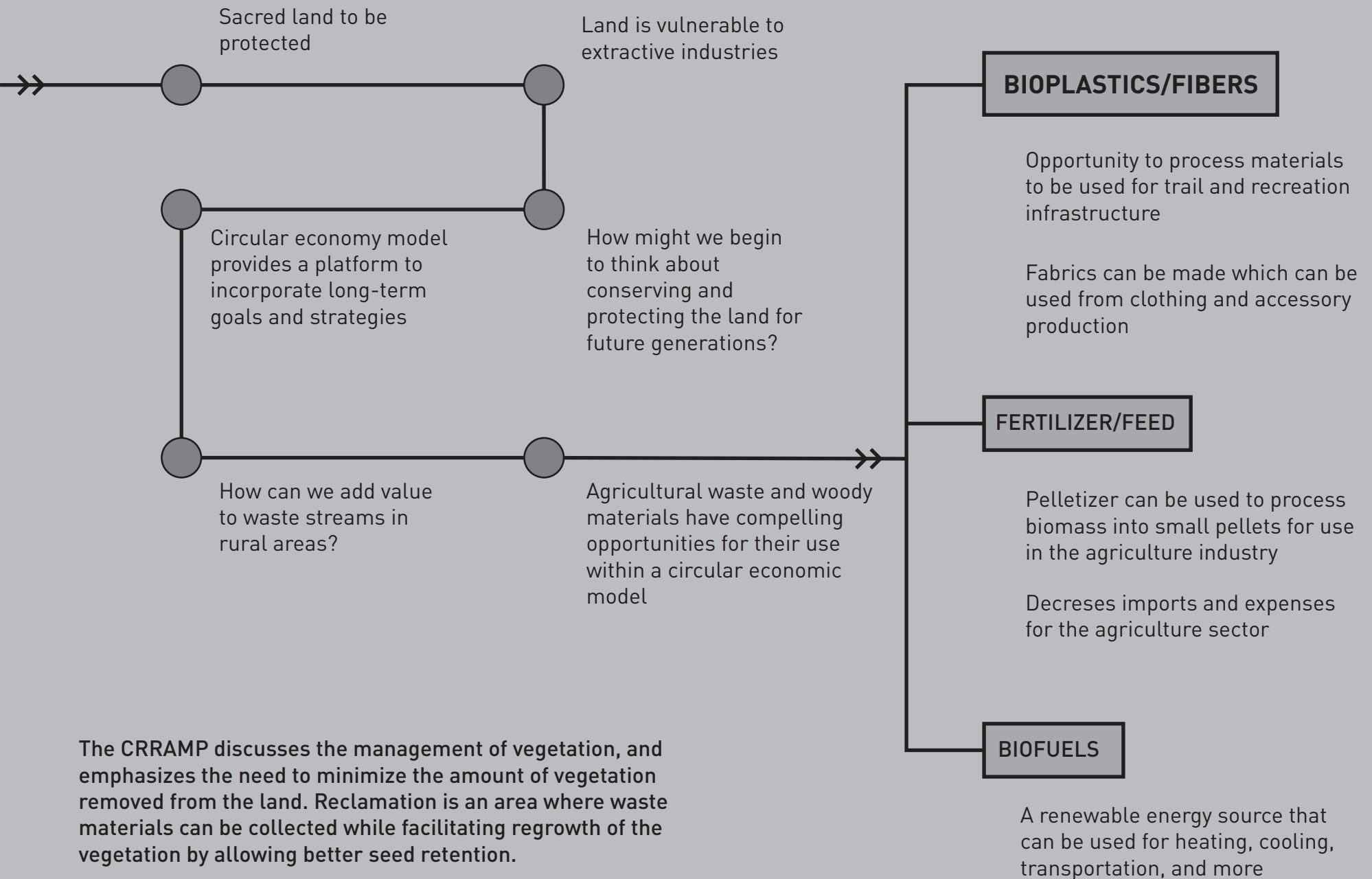


Wood chips can be processed to create three valuable outputs: mixed sugars, glucose, and lignin

- useful in the production of ethanol and acetic acid
- basic raw material for the chemical industry
- a fuel with very high energy value

Waste from wood-based cellulose biomass, such as wood waste and tobacco stalks, can be used in a 'mini-pelletizing' process, creating fuel, animal feed, and other resources.

Path to opportunities



The CRRAMP discusses the management of vegetation, and emphasizes the need to minimize the amount of vegetation removed from the land. Reclamation is an area where waste materials can be collected while facilitating regrowth of the vegetation by allowing better seed retention.

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