

Effects of Burned Area Emergency Response Projects on Non-native Invasive plants

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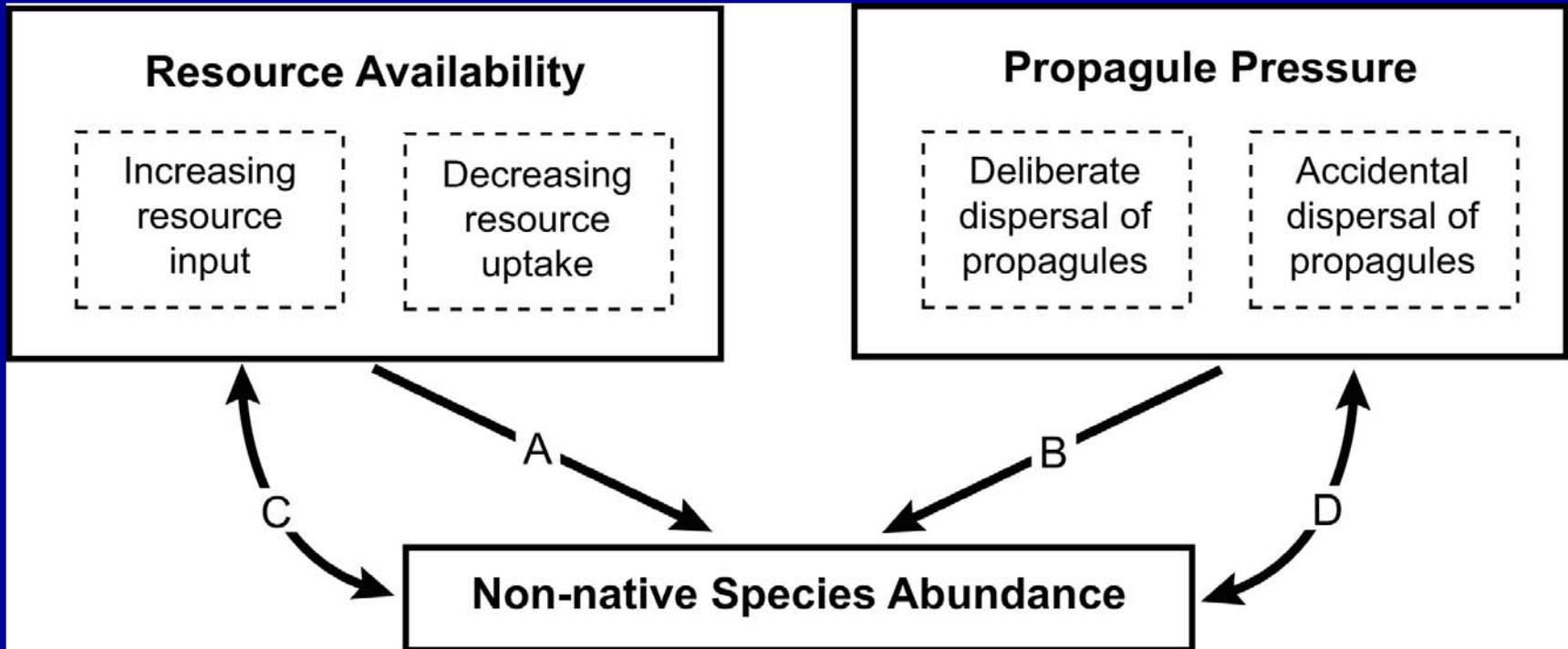
Western Ecological Research Center

Las Vegas Field Station

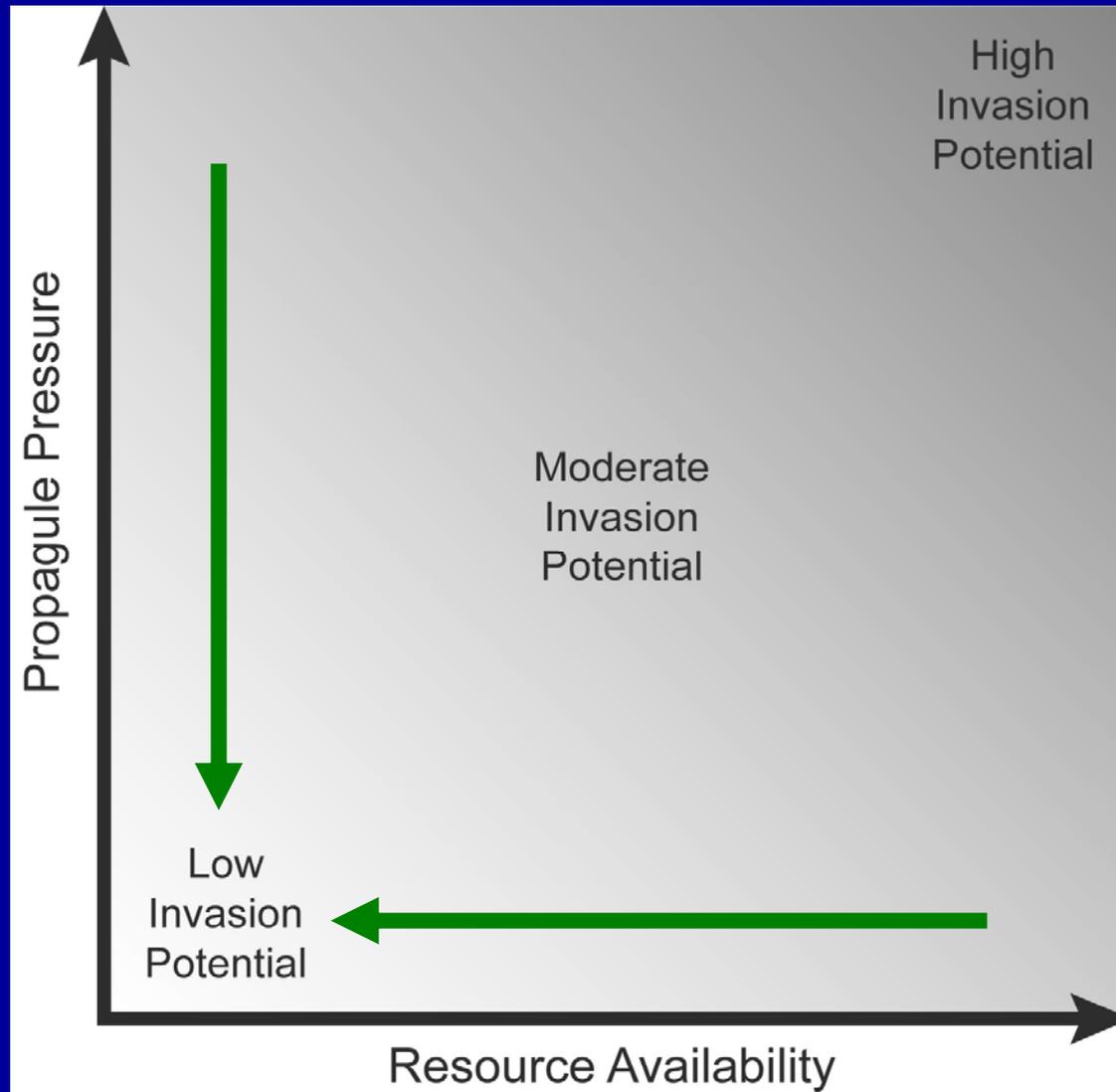
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Invasion Model



Invasion Model



Typical BAER Activities



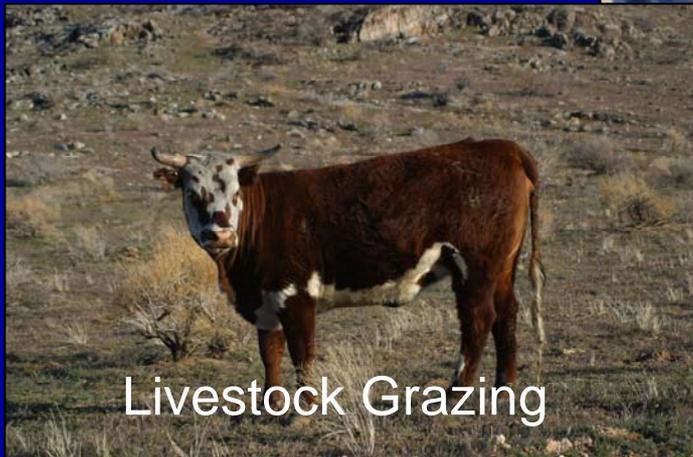
Vehicle Route Closures



Drill Seeding



Aerial Seeding



Livestock Grazing



Erosion Control Structures



Weed Control

Reducing invasion potential following fire and fire management actions

Managing Resource Availability

Minimize resource input

- Do not use nitrogen or phosphorous soil amendments
- Do not revegetate with nitrogen-fixing plants (e.g. legumes)
- Minimize soil disturbance

Maximize resource uptake

- Promote the re-establishment of desirable vegetation, either through direct seeding or planting or by the implementation of appropriate land-use regimes (e.g. temporary closures to grazing)
- Utilize recalcitrant carbon sources (e.g. organic mulches) to reduce available soil nitrogen by increasing mineralization rates by microbial flora.

Reducing invasion potential following fire and fire management actions

Managing Propagule Pressure

Prevent deliberate dispersal

- Ensure that species used in postfire seedings are unlikely to become management problems in the future

Minimize accidental dispersal

- Test seed mixes to ensure they do not contain unwanted invasive species as contaminants.
- Decontaminate equipment by washing after use and/or before using at a new geographic location.
- Implement an early detection and rapid response plan during the first 3 years following fire to detect and eradicate new populations of invasive plants within the management unit.
- Implement a control and monitoring plan during the first 3 years following fire to keep existing invasive plant populations from spreading within the management unit.

The Vegetation Management Challenge

