



# Strategies for Landscape Control and Containment of False-brome

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# A 'contagious' species



- Full geographic spread in North America is broadening
- Present in Oregon, California, Washington (?), New York, Virginia, Michigan ...



California, Esa Crumb



New York, Steven Daniel



Oregon

# Disperses easily



- Equipment
- Clothing
- Pets
- Wildlife (deer)
- Water?







# Invasiveness

- Enemy Release Hypothesis
  - *Roy et al. 2011*
- Evidence of within-species hybridization, multiple introductions to western US
  - *Rosenthal et al. 2008*

# Landscape invasion: typical process for false-brome



- Starts in areas where people and wildlife travel:
  - Roadsides, Parking lots, Trailheads
- Spreads rapidly along roadsides and forest edges
- Also spreads quickly into closed-canopy forest
- Spreads more slowly into prairies and pastures – but facilitated by isolated trees









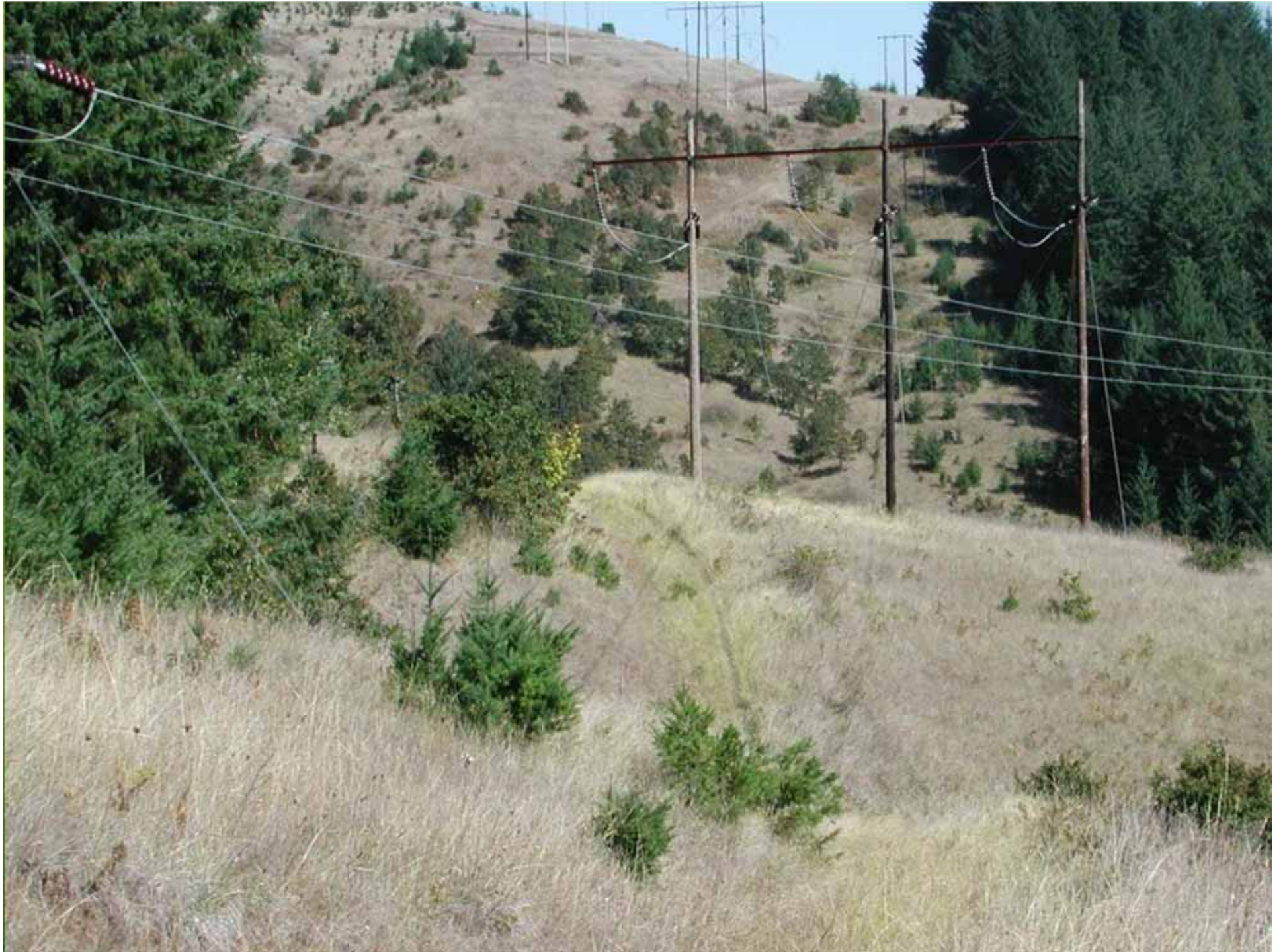














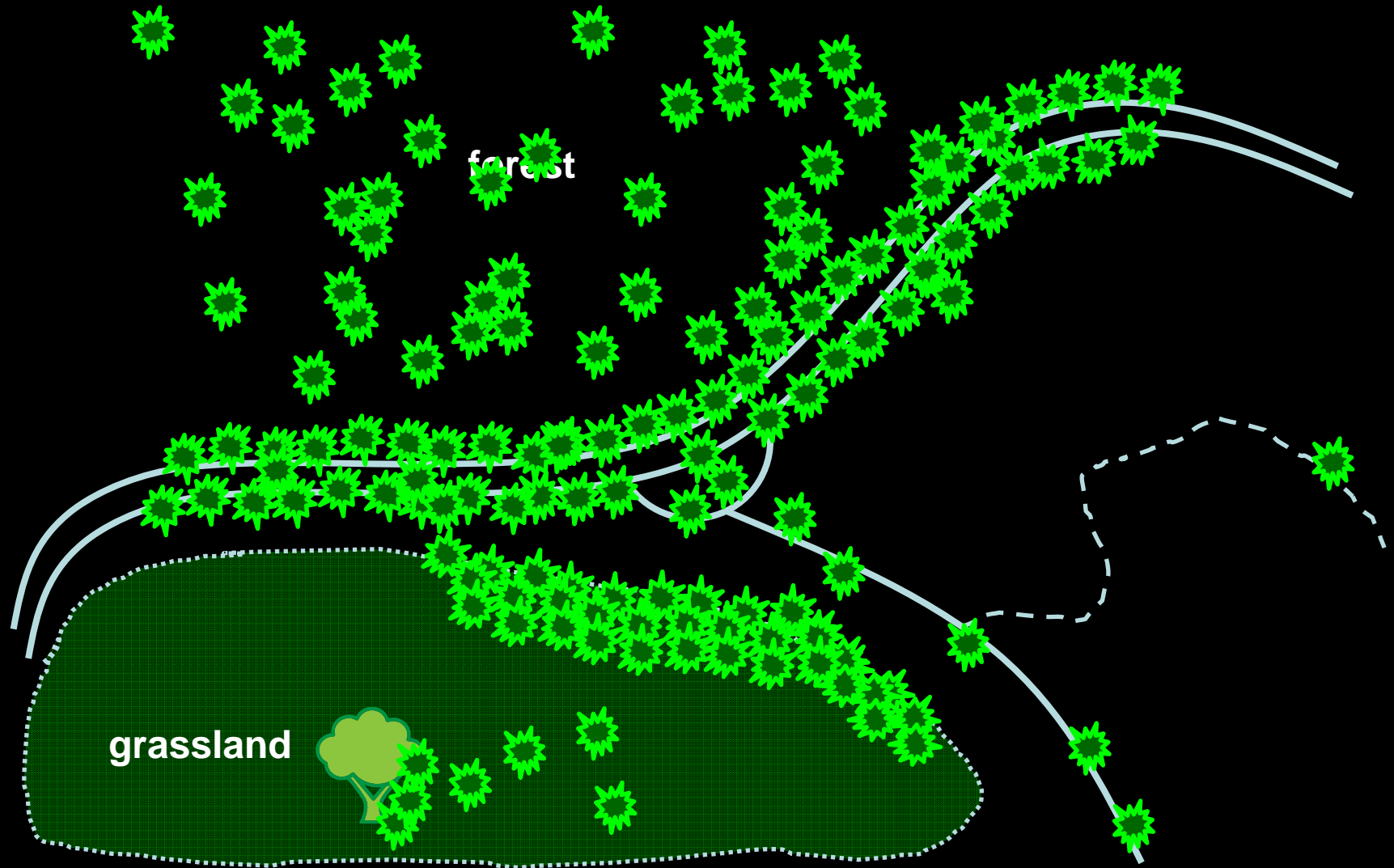








# False brome invasion



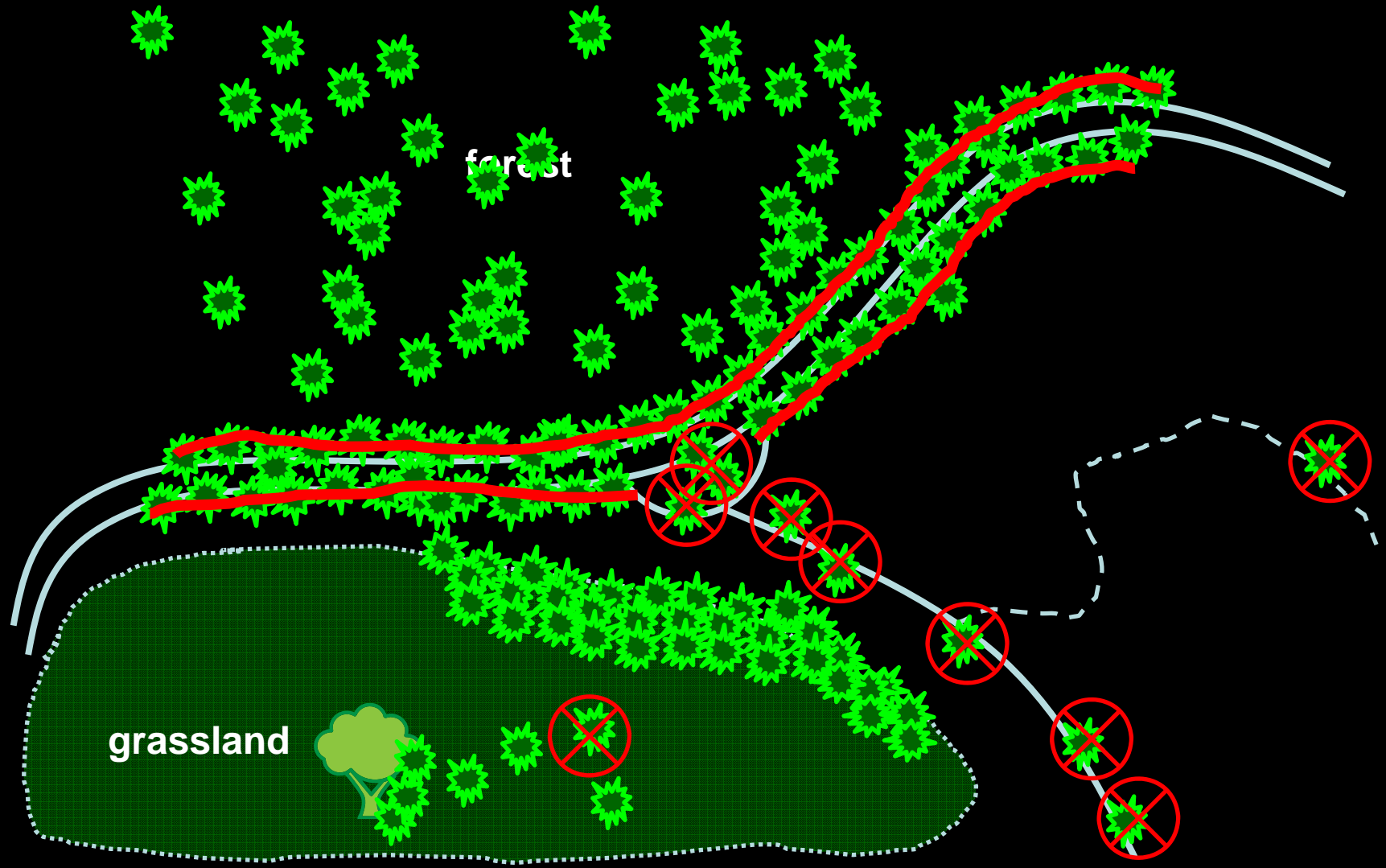


# Landscape control strategies

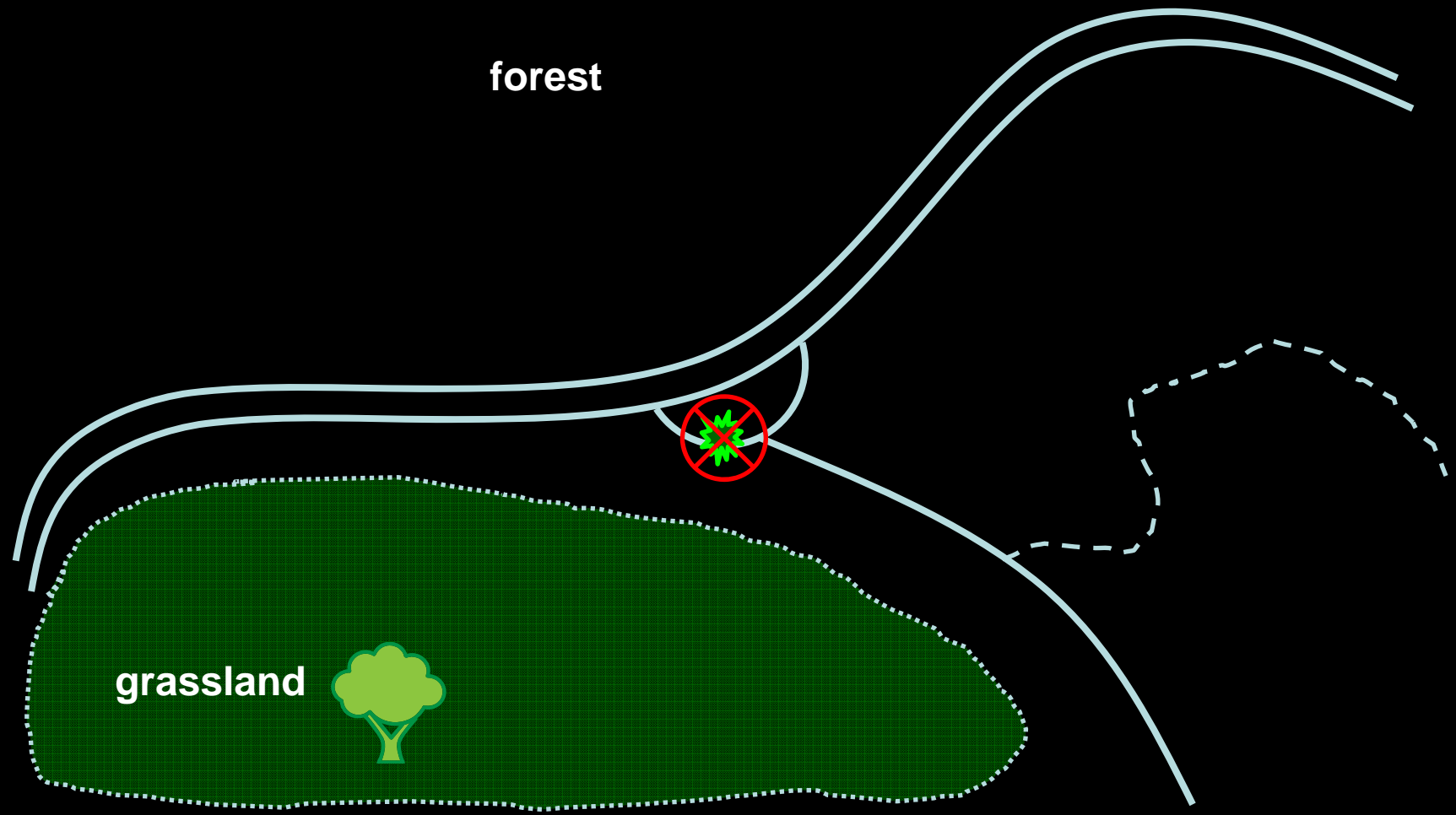
- Detect and control new and isolated patches
- Contain large populations
  - Start with reducing seed production or eliminating plants in high traffic areas – Stop the spread!
    - Roads, trailheads, parking areas, hiking trails, game trails
- After containment, move to eradication if feasible



# False brome invasion



# False brome invasion







# Landscape control strategies

- Establish partnerships, especially with adjacent landowners
  - Neighbors
  - Agencies
- Use existing networks, if possible, to coordinate
  - Example: Middle Fork Willamette Watershed Council with funding from OWEB, NFWF
    - Coordinated survey across multiple properties, outreach and education, control opportunities

# Landscape control strategies



- Land management activities
  - Before:
    - Eradicate false brome to avoid spreading to other sites
    - Clean equipment before entering new areas
  - After:
    - Clean equipment before leaving
  - Adopt strict contract language that stipulates these actions, with consequences.
- Public outreach
  - Stop invasions before the start