Instructor instructions:

- At this point in the semester, students in my class had learned
  - The properties that characterize ecosystems (e.g. soils, vegetation type and amount, water table, etc.)
  - What those properties are for many systems, including prairies and oldfields
- For context, during this activity I told students:
  - How to establish and manage a prairie ecosystem
  - What a Karner Blue Butterfly is
  - feel free to email me (pizzaril@msu.edu) if you'd like the companion powerpoint for this activity)

Learning objectives:

- Apply knowledge of ecosystem properties to management scenarios
- Illustrate similarities and differences between the goals of landowners and land managers.
- Use iterative framework of ecosystem restoration to re-assess management plans.

Activity

Scenario start: You're a land manager that's recently been tasked with managing 2 acres of land. It had previously been farmed for decades but has since been abandoned. The new landowner is not interested in managing the current community. Instead, they want to change the current community (**restore** it) into one that has more native flowering plant species, and is especially interested in building a habitat that supports the endangered butterfly (The Karner Blue butterfly, which feeds exclusively on the native plant *Lupinis perennis*)

> Q1: What information do we need about the site conditions to know what ecosystem to restore the landscape to? (Hint: think back to class last week)

> Q2: What are the goals of the landowner?

Q3: What is your management plan? Be sure to connect back to your management goals, and the initial site conditions (e.g. how do we turn the current community type into the one we want it to be?)

Q4: What will you monitor to see if you meet your goals? Be sure to connect back to your management goals

2 years later (wait for new scenario before completing)

Q1: What are the challenges that might impede your management goals?

Q2: Should you make changes to your management plan? If so, what?

Q3: How would you check to see if your new management plan is working?