1st Botanical baseline

Baseline Inventory Includes
- Species list and mapped distribution
- Site history
- Current management

Opportunities
- Develop common understanding
- Refine rarity classification

Constraints
- Dormant seedbank
- Unknown history
- Poor soils maps

2nd Define goals

Goals
- Ecologically realistic
- Defined within reference system

Realistic Goals
- Species-specific
- Data driven
- Adaptive

Unrealistic Goals
- All native grasses
- All exotic species
- Perennial plants

Ecology
- Occurs in wet meadows
- Makes bunches or sods
- Short statured

Opportunities
- Moderate RDM favors
- Long lived seedbank
- Some hemi-parasites

Constraints
- Vulnerable much of year
- Tasty
- How many are enough?

Pine bluegrass

Ecology
- Upland – North facing slopes in arid areas
- Most widespread and common native grass in CA
- Short statured
- Early flowering
- Early senescence

Opportunities
- Low RDM favors
- 3 years after fire

Constraints
- Low biomass
- Many unknowns
- Difficult to find

Ecology
- Varied and diverse
- Pollinator services important

Opportunities
- Low RDM favors
- Pollinator services important

Constraints
- Nitrogen dep in polluted areas
- Climate variability
- Some toxic en masse

Purple needlegrass

Ecology
- Likes dry sites
- Tall statured
- Competes better in poor soils
- Long flowering season

Opportunities
- Low RDM favors
- Winter grazing annual grass competition
- 3 years after fire

Constraints
- If grazed when bolting
- High site variability
- Low palatability

Ecology
- Occurs in wet meadows
- Makes bunches or sods
- Short statured

Opportunities
- High RDM favors
- Winter grazing annual grass competition
- Velvetgrass competition

Constraints
- High RDM increases fire mortality
- High cover decreases diversity

Ecology
- Varied and diverse
- Below ground food storage common
- Short lived seedbank

Opportunities
- Moderate RDM favors
- Low grazing favors, but no grazing threats

Constraints
- Vulnerable much of year
- Tasty
- How many are enough?

Tall statured wildflowers

Ecology
- Very diverse, many rare species
- Below ground food storage common
- Short lived seedbank

Opportunities
- Low RDM favors
- Low grazing favors, but no grazing threats

Constraints
- Vulnerable much of year
- Tasty
- How many are enough?

Realistic Goals
- Species-specific
- Data driven
- Adaptive

Unrealistic Goals
- All native grasses
- All exotic species
- Perennial plants

Evolutionary disturbance regimes matter
(and weeds matter)

Ecology
- Varied and diverse
- Pollinator services important

Opportunities
- Low RDM favors
- Long lived seedbank
- Some hemi-parasites

Constraints
- Nitrogen dep in polluted areas
- Climate variability
- Some toxic en masse

Ecology
- Occurs in wet meadows
- Makes bunches or sods
- Short statured

Opportunities
- High RDM favors
- Winter grazing annual grass competition
- Velvetgrass competition

Constraints
- High RDM increases fire mortality
- High cover decreases diversity

California oatgrass

Ecology
- Occurs in wet meadows
- Makes bunches or sods
- Short statured

Opportunities
- High RDM favors
- Winter grazing annual grass competition
- Velvetgrass competition

Constraints
- High RDM increases fire mortality
- High cover decreases diversity

Wildflower fields

Ecology
- Varied and diverse
- Pollinator services important

Opportunities
- Low RDM favors
- Long lived seedbank
- Some hemi-parasites

Constraints
- Nitrogen dep in polluted areas
- Climate variability
- Some toxic en masse

Ecology
- Occurs in wet meadows
- Makes bunches or sods
- Short statured

Opportunities
- High RDM favors
- Winter grazing annual grass competition
- Velvetgrass competition

Constraints
- High RDM increases fire mortality
- High cover decreases diversity

Evolutionary disturbance regimes matter
(and weeds matter)

Ecology
- Varied and diverse
- Pollinator services important

Opportunities
- Low RDM favors
- Long lived seedbank
- Some hemi-parasites

Constraints
- Nitrogen dep in polluted areas
- Climate variability
- Some toxic en masse

Ecology
- Varied and diverse
- Pollinator services important

Opportunities
- Low RDM favors
- Long lived seedbank
- Some hemi-parasites

Constraints
- Nitrogen dep in polluted areas
- Climate variability
- Some toxic en masse

Tall statured wildflowers

Ecology
- Very diverse, many rare species
- Below ground food storage common
- Short lived seedbank

Opportunities
- Moderate RDM favors
- Low grazing favors, but no grazing threats

Constraints
- Vulnerable much of year
- Tasty
- How many are enough?

Realistic Goals
- Species-specific
- Data driven
- Adaptive

Unrealistic Goals
- All native grasses
- All exotic species
- Perennial plants

Evolutionary disturbance regimes matter
(and weeds matter)

Ecology
- Varied and diverse
- Pollinator services important

Opportunities
- Low RDM favors
- Long lived seedbank
- Some hemi-parasites

Constraints
- Nitrogen dep in polluted areas
- Climate variability
- Some toxic en masse

Ecology
- Varied and diverse
- Pollinator services important

Opportunities
- Low RDM favors
- Long lived seedbank
- Some hemi-parasites

Constraints
- Nitrogen dep in polluted areas
- Climate variability
- Some toxic en masse

Evolutionary disturbance regimes matter
(and weeds matter)