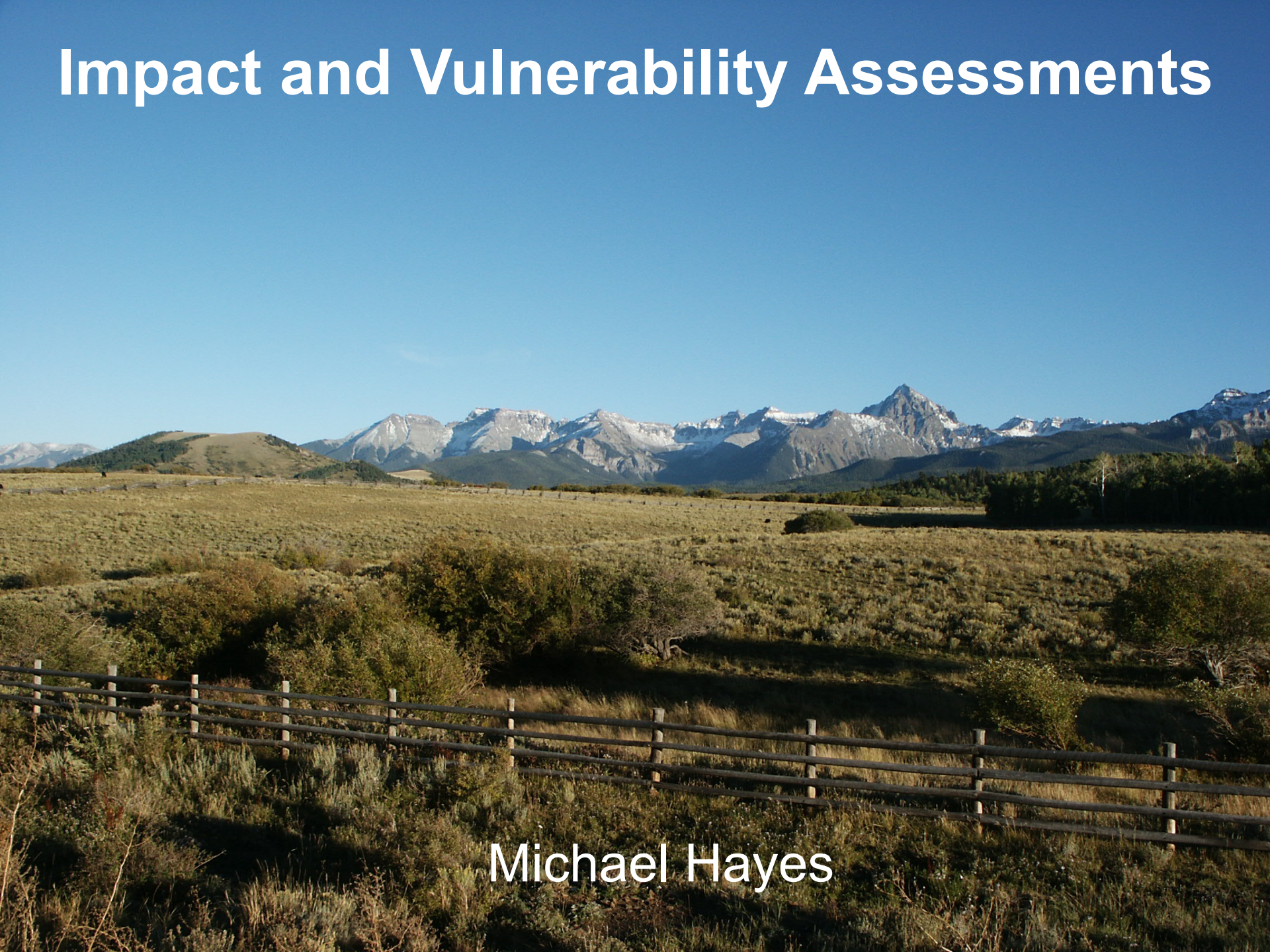


# Impact and Vulnerability Assessments



Michael Hayes



# Drought Plan Components

- ▶ Monitoring and early warning
  - Assess, communicate, and trigger action
  - Cannot manage what is not monitored
  - Information system
- ▶ Vulnerability assessment
  - Who and what is at risk and why?
  - Impacts
- ▶ Mitigation and response actions
  - Actions/programs that reduce risk and impacts and enhance recovery

# Case Study: Hualapai Nation (Arizona)

- ▶ Plan Components
  - Vulnerability Assessment
    - ▶ Communities, water supplies
    - ▶ Livestock
    - ▶ Wildlife and tourism
    - ▶ Timber
  - Monitoring
    - ▶ Built around vulnerabilities
  - Mitigation strategies
    - ▶ Built around vulnerabilities
  - Planning exercises



Hualapai DNR 2005



# Case Study: Colorado

## ▶ Long-term planning process

- Revised frequently since 1981
- Now every 3 years

## ▶ Components

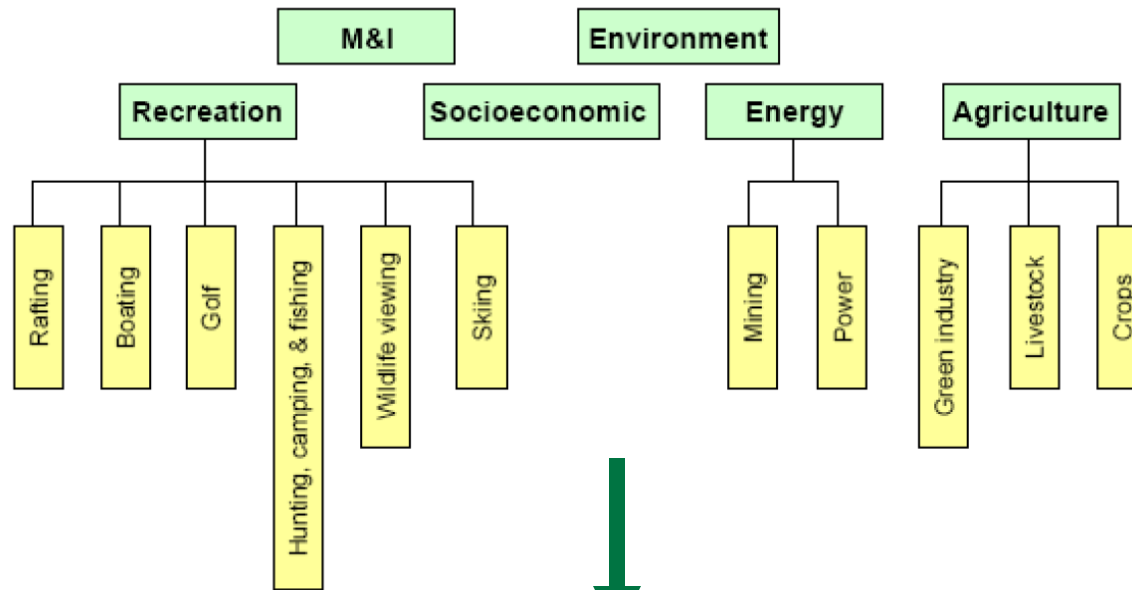
- Monitoring
  - ▶ State Climatologist, etc...
  - ▶ NIDIS Upper Colorado River Basin
- Vulnerability assessment
- Response
- Mitigation
- Drought Planning Toolbox





# Case Study: Colorado

Figure 18. Sectors and Sub-sectors for Drought Vulnerability Assessment





Drought Impact Reporter  
(by sector, by county)

Local Mitigation Plans  
(communities, counties, regions)

# Survey Responses

Vulnerabilities  

▸ Rangeland, soil health  

▸ Public land vs. private land

▸ Coordination  

▸ Population/development

▸ Climate change

▸ Irrigation/technology

National Drought Mitigation Center



# Survey Responses

## Impacts

- ▶ Production
- ▶ Fire
- ▶ Reduced supply
- ▶ Riparian areas
- ▶ Fisheries
- ▶ Recreation and Tourism

