

Goal:

Develop, implement, and facilitate a long-term, strategic program to inventory, monitor, and assess priority species, habitats, and natural communities for the Department



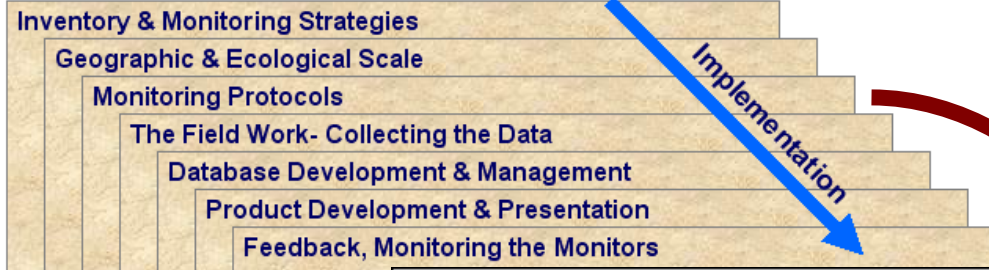
Basis for Goal: 2001-02 BCP and DFG planning & priority exercises from mid-1990s to present

WHITNEY CREEK
MT. WHITNEY IN DISTANCE

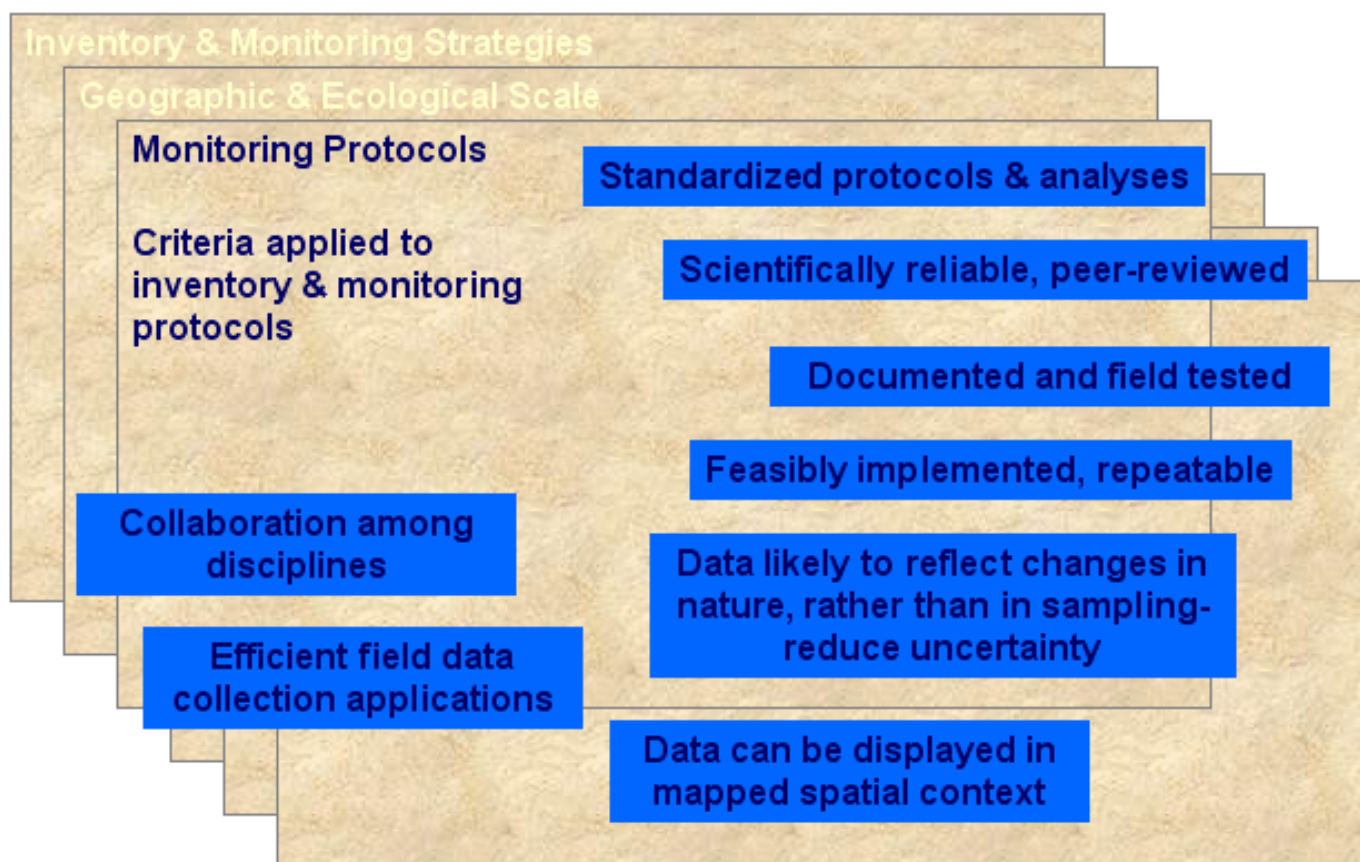


"strategic"

We already know some priorities for inventory and monitoring efforts. Out of necessity, those efforts involve layers, and layers within layers, of planning, coordination, decision, and action that are needed for successful implementation.



involves many layers of consideration and detail:





Program's Definition of Resource Assessment:

The range of activities* that involve the direct collection, compilation, analyses, writing, and reporting of biological data on species, communities, or systems. Field experiments are included.

*Basis for activities is a written prospectus describing project:

Objectives

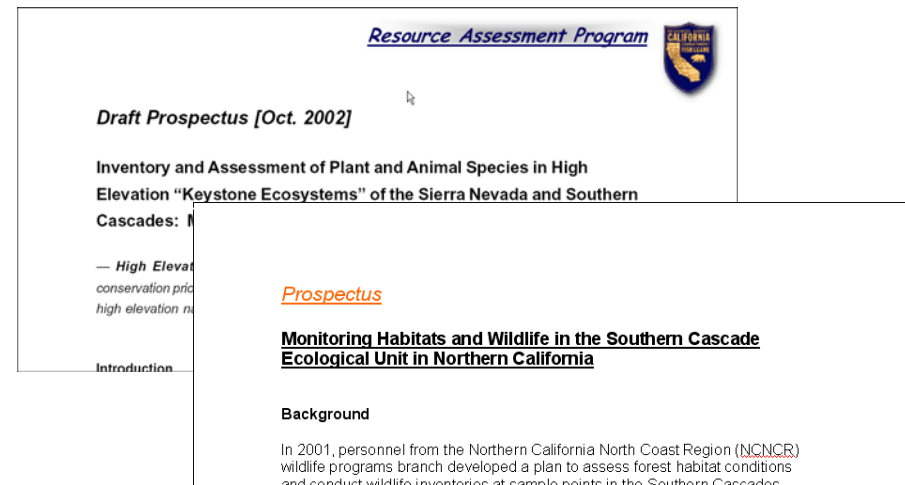
Need

Utility

How product will be used

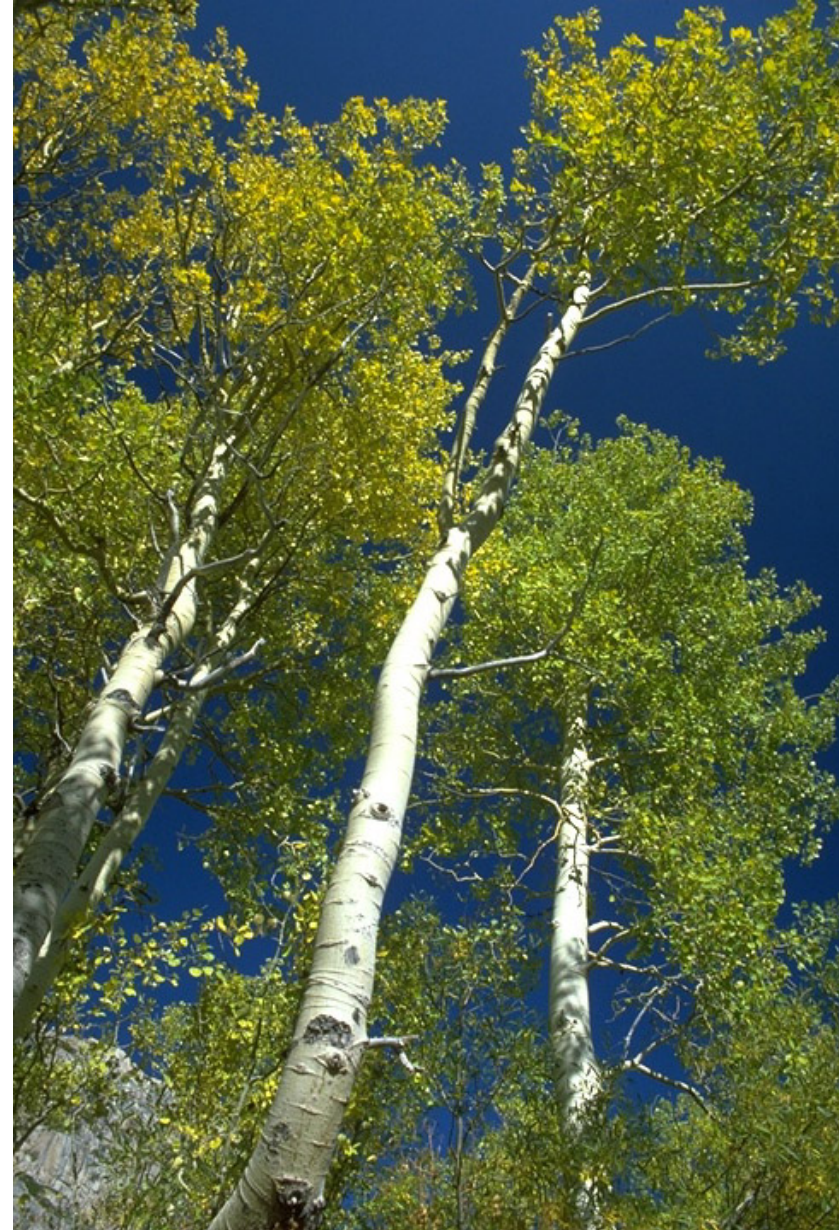
Methods

Collaborators, Timelines, etc.



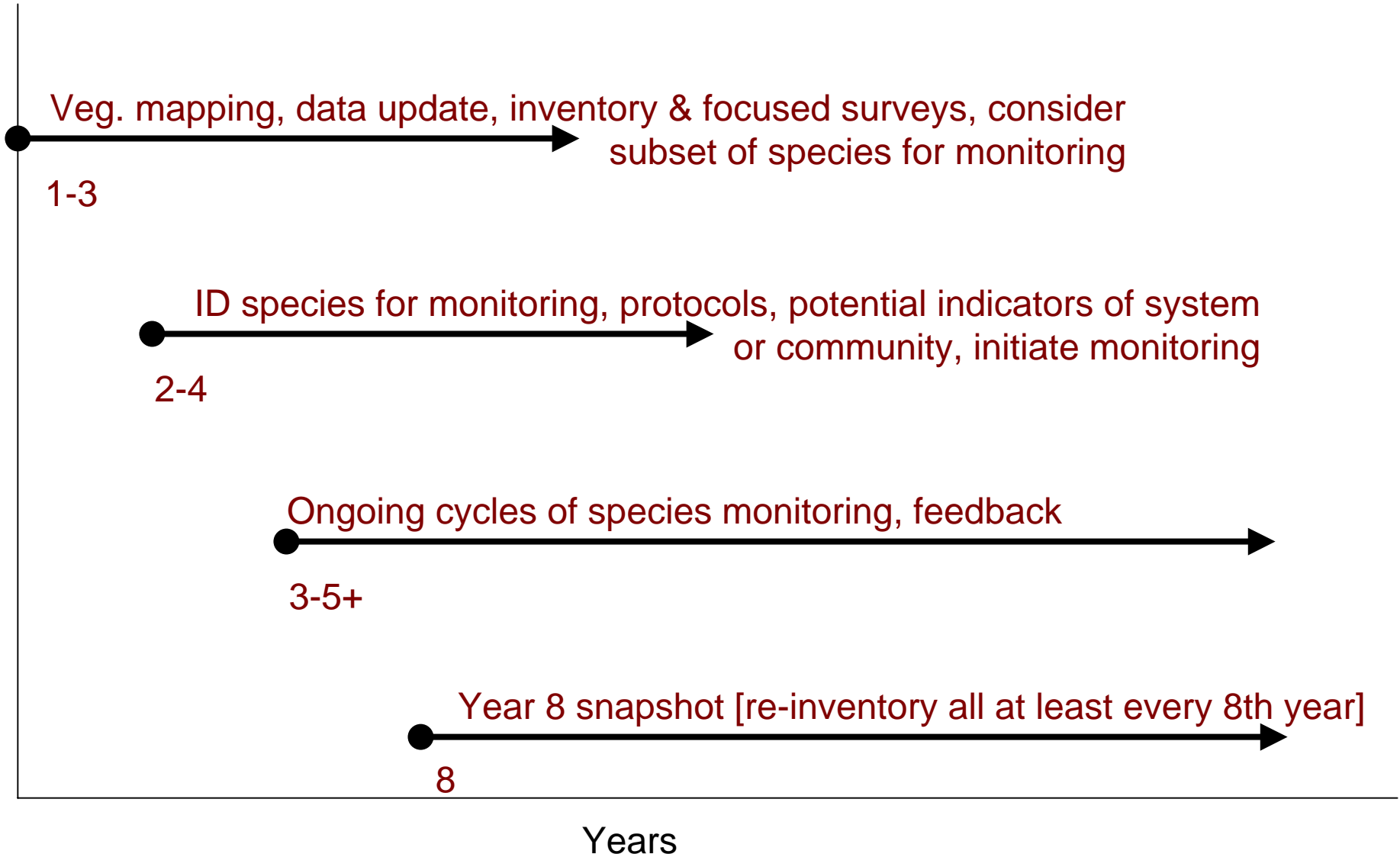
Key Objectives (there are others as well)

- 1) Coordinated approach to survey, inventory, and monitor species and natural communities that integrates DFG's various biological disciplines to the extent feasible.
- 2) Conduct and facilitate surveys and inventories at a range-wide scale that can serve as a precursor to long-term monitoring of selected species and habitat/community status and trend.
- 3) Assist in providing the support and collaboration needed to implement assessment and develop products.





Generalized Phases or Stages of Monitoring Implementation





RAPnet

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About RAPnet



Resource Assessment Program

Species and Natural Communities
Monitoring and Assessment Project



Biogeographic Areas for Resource Assessment Strategy Development

- Modoc Plateau & Northwestern Basin Range
- Sierra Nevada & So. Cascade Range
- Sierra Foothills
- North Coast Range
- Central Coast & Valley Range
- So. California Coast Range
- Desert Range

The Resource Assessment Program network (RAPnet) provides a collaborative tool to provide varied data collection, compilation, and dissemination efforts under the "umbrella" of a systematic and more comprehensive effort. The network enables multiple groups to effectively address resource assessment priorities and refocus many of our existing efforts in the collection, analysis, and use of data on native fish, wildlife, plants, and communities.

* Areas based on USDA Ecoregion data (1997)

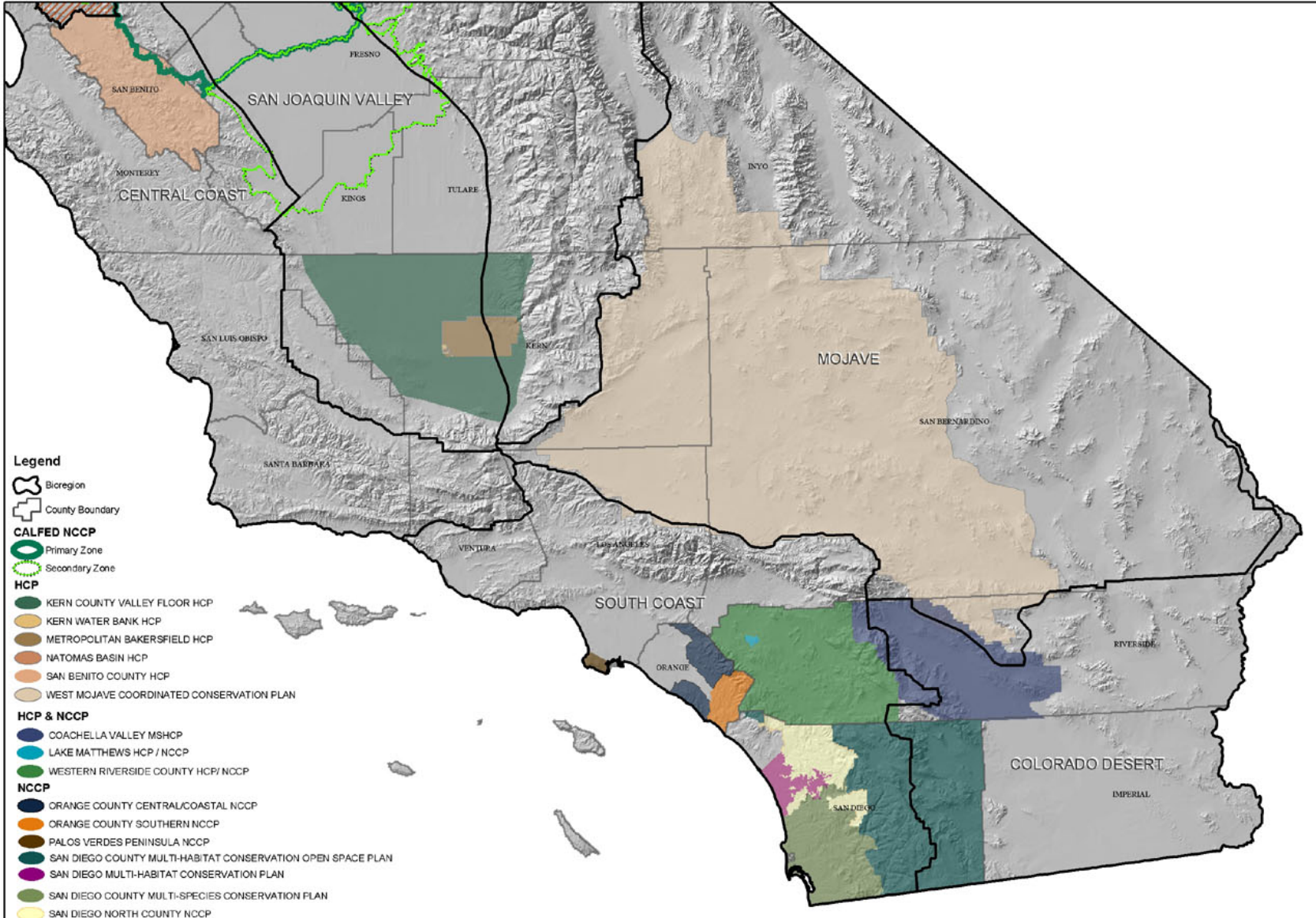
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Habitat Conservation Planning Areas and Natural Community Conservation Planning Areas

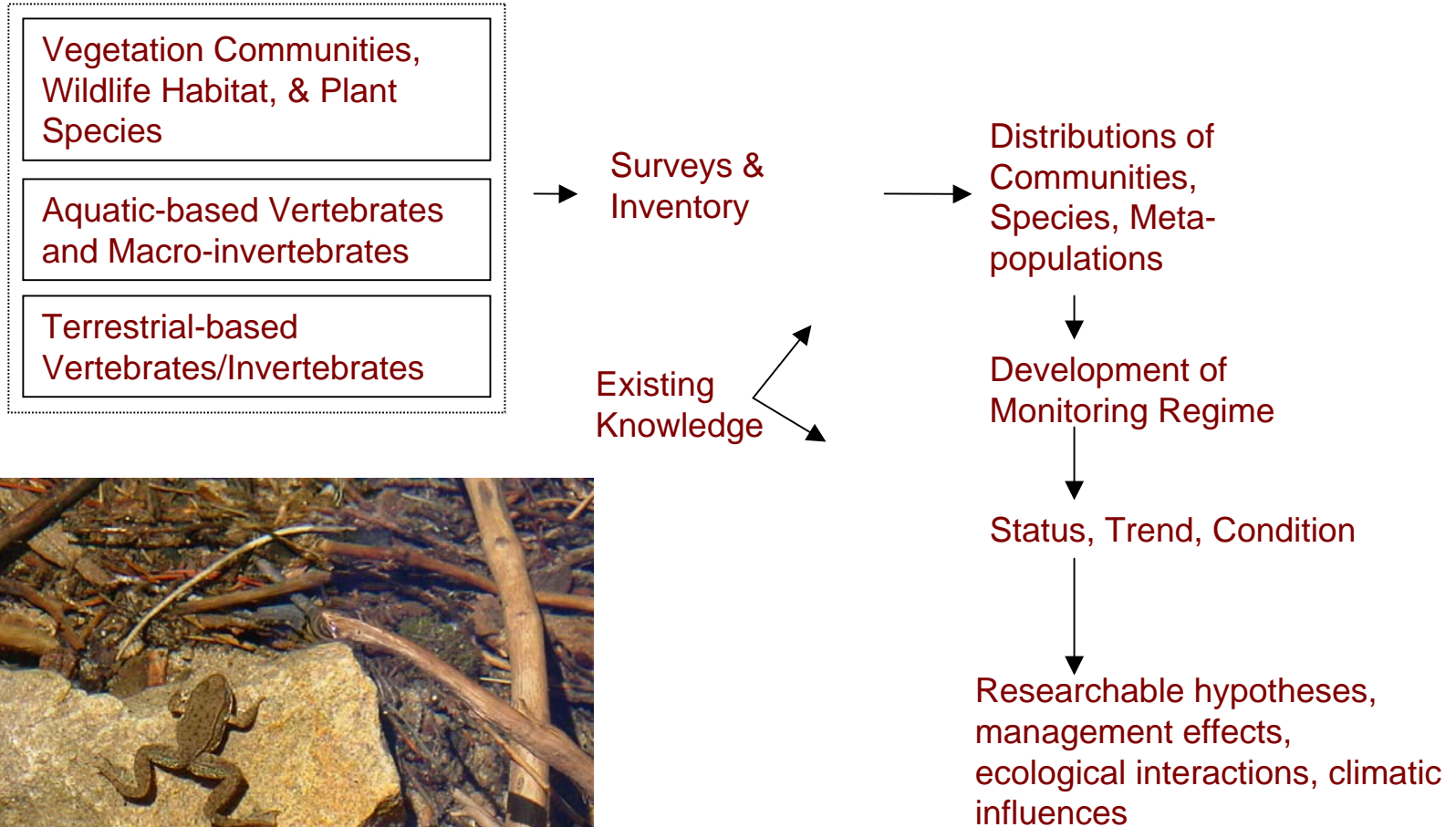


January 2003





Example pathway for a Species & Community Assessment





Example: "keystone ecosystems"- montane meadow, riparian, aspen communities

Spatial / GIS Data

Tabular Data

ArcView GIS 3.2

File Edit Table Field Movement Tools Window Help NCNCR Tools

1 of 838 selected

Attributes of Smp20...

Shape	Rapid
Point	200207180011009
Point	200207170011002
Point	200207180011007
Point	200207180011008
Point	200207190021024
Point	200207190021025
Point	200207170021002
Point	200207170021003
Point	200207170021004
Point	200207170021005
Point	200207170021006
Point	200207170021009
Point	200207180021010
Point	200207180021012
Point	200207180021013
Point	200207180021016
Point	200207180021018
Point	200207180021019
Point	200207180021020
Point	200207180021022
Point	200207180021023
Point	200207170051002
Point	200207170051003

Willow Flycatcher Entry Form

Rapid Assessment Field Form

Version

Observation Info

ObsID: 200207180021016 Data entered by: kdavis

Crew: kdavis, ekseeler-wolf

ARR: 107 UnitID: 1 SessionID: 004 PointID: 004

Entry Date: 12-Apr-01 Time: 6:40 RAP Input Date: 08-Jul-03

Directory: SMP_20030617_107

Comment: Bad Entry Date

Photos

Clockwise NG-NW	Cardinal Photos	Photos numbers and info	
0 32	25 26	1: 0	5: 0
0 31	27 0	2: 0	6: 0
Up	30	3: 0	7: 0
	29 28	4: 0	8: 0
			9: 0

Comments:

Photo Samples

Cloud Cover: 0 Precipitation: 0

Distance	Bearing	Detect Type	Photos?
0	0	0 [No Value]	[No]
0	0	0 [No Value]	[No]
0	0	0 [No Value]	[No]
0	0	0 [No Value]	[Yes]
0	0	0 [No Value]	[No]
0	0	0 [No Value]	[Yes]

Photographs

File Edit View Favorites Tools Help

Address: C:\Documents and Settings\pdeak\Desktop\Files for CD Burner\Imported\SMP_20030617_107

200207180021016_NO.JPG

DSCN0025.JPG
JPEG Image
Modified: 1/11/2001 12:00 AM
Size: 120 KB
Attributes: (normal)
Created: 9/8/2003 4:40 PM
Accessed: 9/12/2003 3:40 PM
Owner: Administrators
Dimensions: 1024x768 pixels

200207180021016_NO.JPG 200207180021016_NE.JPG 200207180021016_EA.JPG

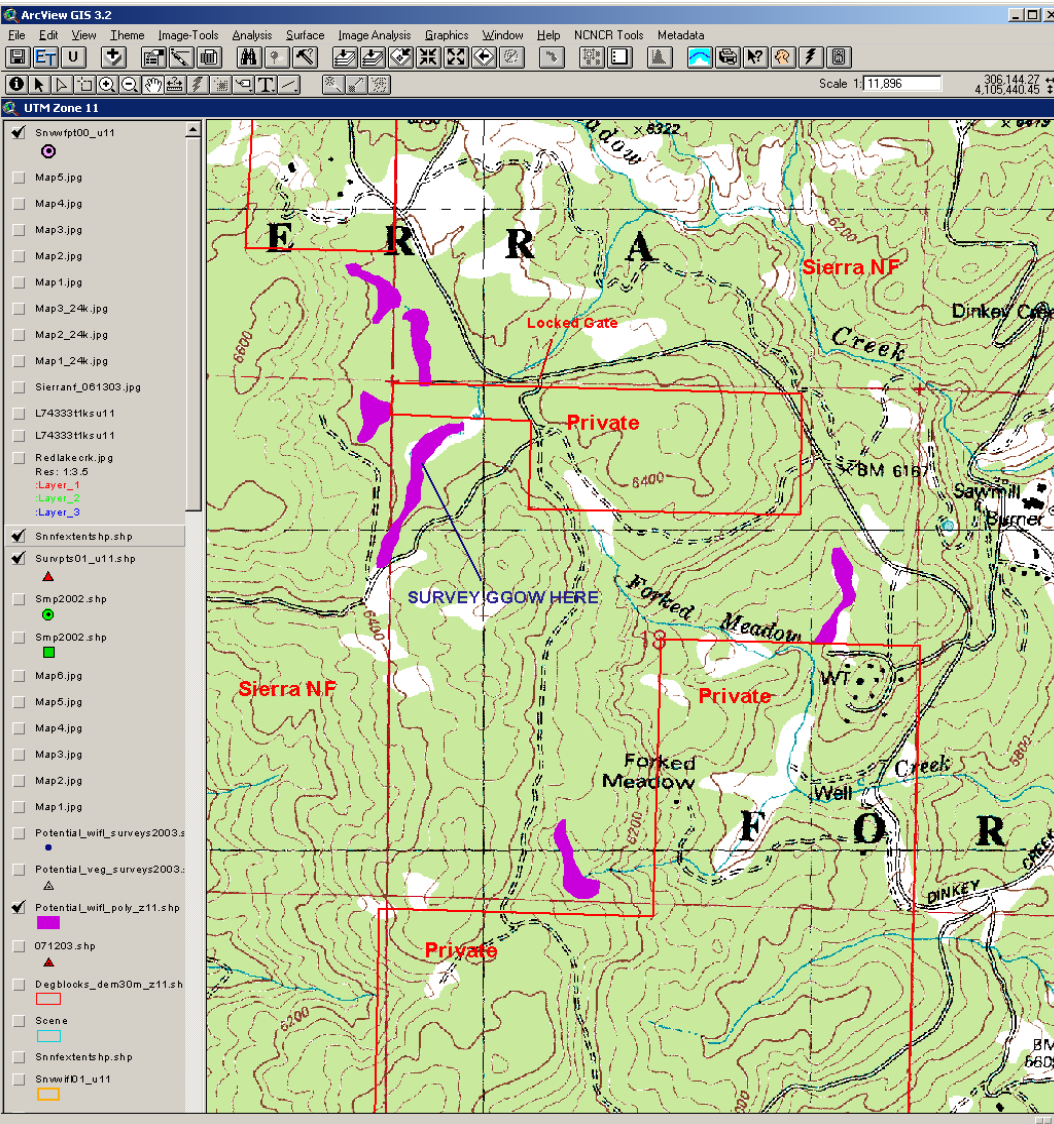
200207180021016_SE.JPG 200207180021016_SO.JPG 200207180021016_SW.JPG

200207180021016_VE.JPG 200207180021016_NE.JPG

1 object(s) selected



Managing the Project in a GIS



Managing Field crews with Maps on Handheld Devices

Meadow Assessment



Hydrology

Standing Water = 10%

Saturated Soil = 25%

Moist Soil = 70%

Dry Soil = 0%

Vegetation

Riparian Deciduous Shrub (RDS) = 65%

RDS (Willow) = 85% (relative to total RDS)

RDS (Alder) = 5%

RDS (Other) = 5%

Height of RDS (<1m) = 5%

Height of RDS (1–2m) = 50%

Height of RDS (>2m) = 45%

Height of Herbaceous (<12") = 50%

Height of Herbaceous (>12") = 50%

Tree Cover in Meadow = 5%

Disturbance

Presence of Livestock = No

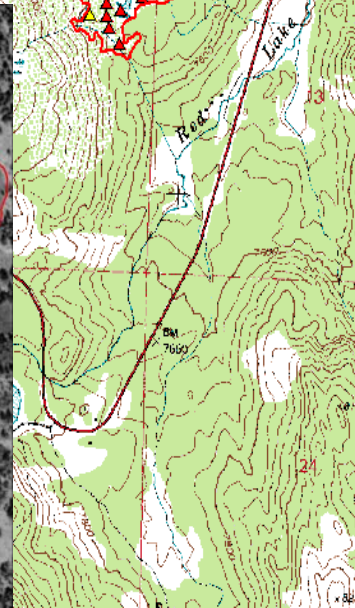
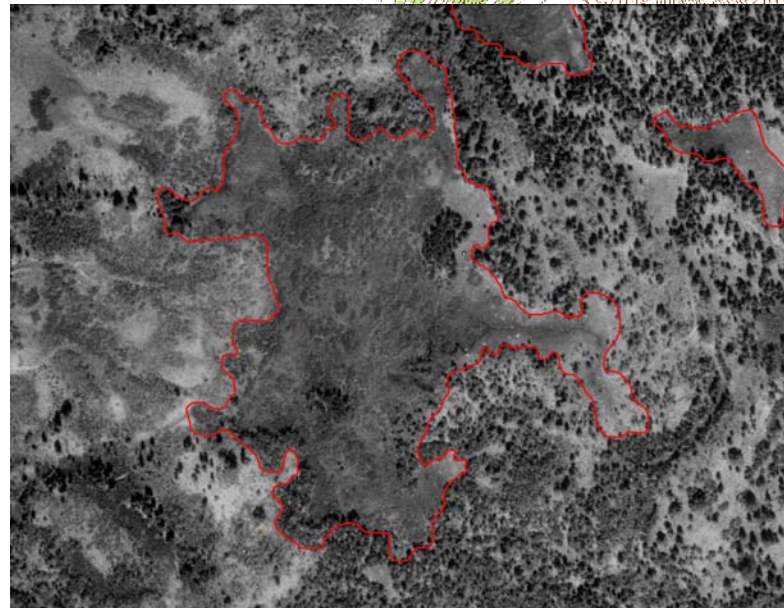
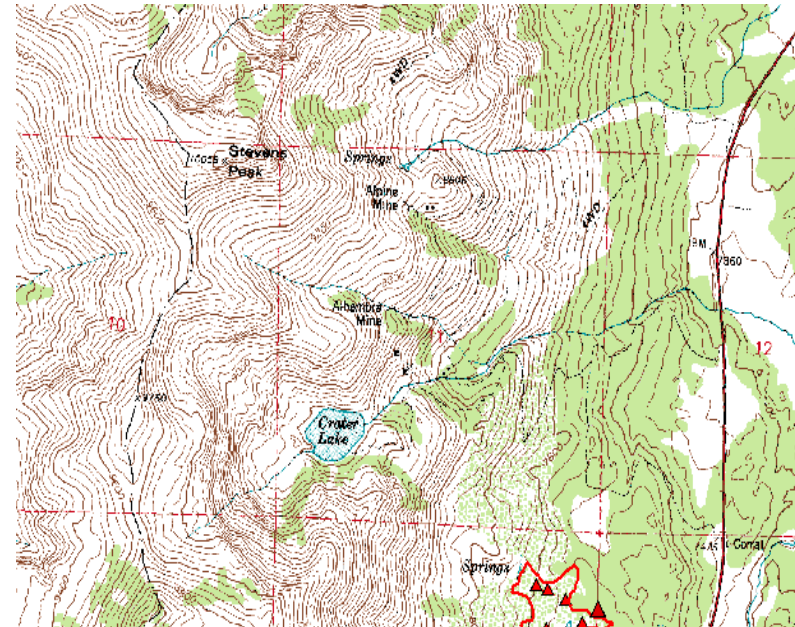
Evidence of Livestock = No

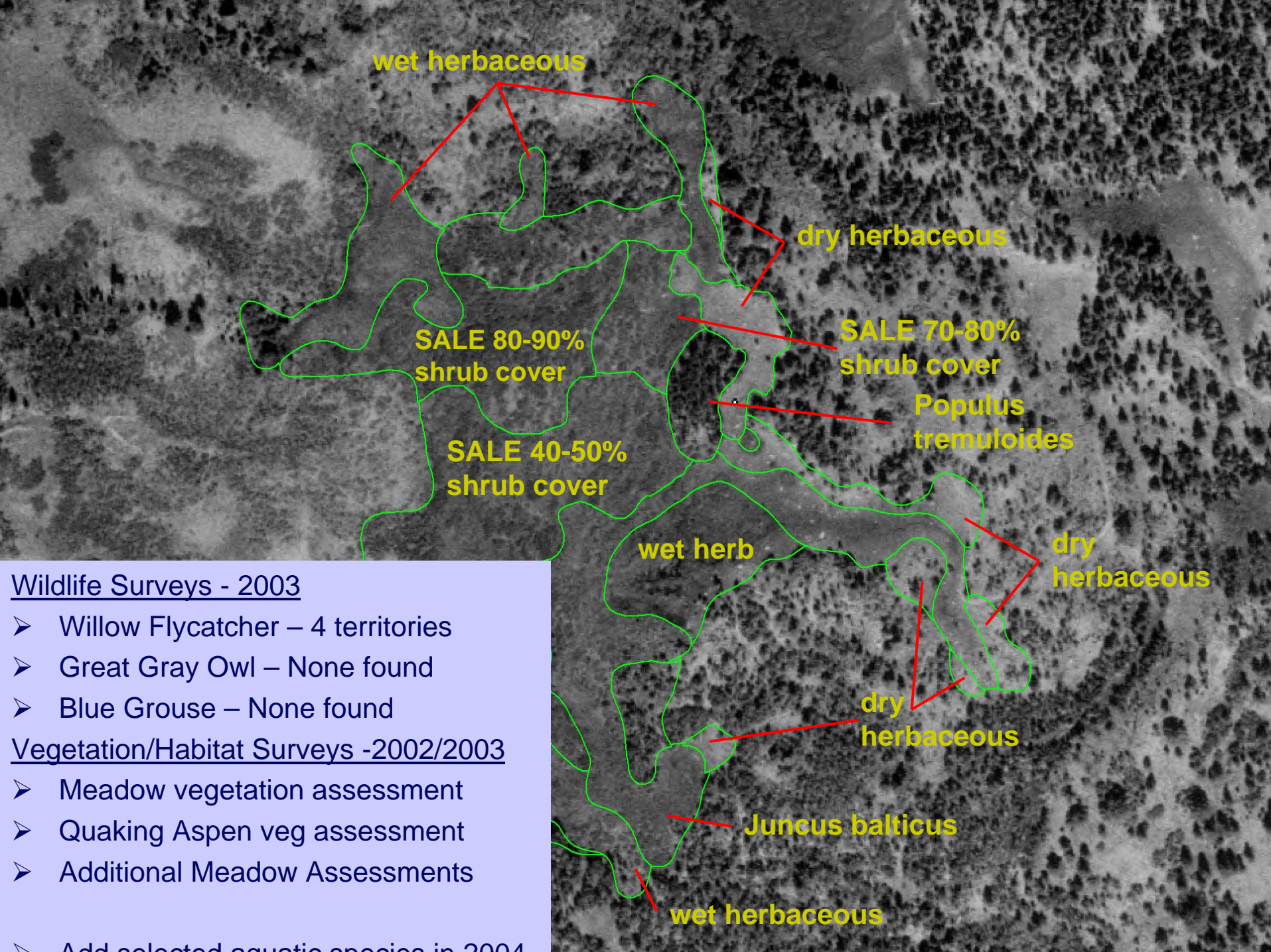
RDS Highlining = None

RDS Hedging = Light

Beaver Activity = Light

Bank Disturbance = None





wet herbaceous

dry herbaceous

SALE 80-90%
shrub cover

SALE 70-80%
shrub cover

Populus
tremuloides

SALE 40-50%
shrub cover

wet herb

dry
herbaceous

dry
herbaceous

Juncus balticus

wet herbaceous

- Wildlife Surveys - 2003
- Willow Flycatcher – 4 territories
 - Great Gray Owl – None found
 - Blue Grouse – None found
- Vegetation/Habitat Surveys -2002/2003
- Meadow vegetation assessment
 - Quaking Aspen veg assessment
 - Additional Meadow Assessments
 - Add selected aquatic species in 2004



Where we've been – “traditional” resource monitoring

- Estimating population size(s)
- Monitoring population changes (trends)
- Monitoring population(s) distribution
- Monitoring habitat management
- Establish ecosystem relationships (i.e. habitat req., species relationships)



Improvement

- Poor definition of goals (short, long-term)
- Experimental and sampling designs an afterthought
- Few products - poor documentation and reporting
- Little coordination with other projects
- Weak University collaborations
- Uncertain ties to species management (adaptive)



Resource monitoring challenges

- Broaden scale to manage larger areas and multiple species
- Dependent on inventory (what, where?)...starting point
- Conservation needs (biological/political) to protect species and their habitats
- Develop species/ecosystem monitoring objectives (conceptual models)
- Triage – deal with issues now, and “get ahead of the game” on others
- Integrate principles of conservation biology (metapopulations, species long-term viability)
- Evolutionary (not static) & adaptive (not passive)



Implementation

- Organization – Bio-regional approach (teams)
- Species/habitat prioritization
- Project development and planning – Prospectus (foundation)
- Data acquisition – electronic data collection
- Communication – RapNet, DFG website
- Collaboration – Inter-agency, university
- DFG/UC workshops (RAP prioritization, review, science advisory)



RAPnet information page, current info:

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Announcements Add

- ♦ [New Southern California Post-fire Biological Assessment Webpage](#) *(Updated on Nov 26 by Phillip Deák)*
- ♦ [Southern California Fire - Multimedia Coverage](#) *(Updated on Nov 25 by Phillip Deák)*
- ♦ [How to set RAPnet to use your current email address](#) *(Posted on Nov 24 by Steve Newton-Reed)*
- ♦ [NEW- So.Cal. Post-fire species/community assessments](#) *(Updated on Nov 21 by Eric Loft)*
- ♦ [Overview of Features](#) *(Updated on Nov 20 by Phillip Deák)*

What's New? X

Members

- ♦ [WHDAB](#) joined on Nov 26
- ♦ [Kevin Hunting](#) joined on Nov 25
- ♦ [Scott Downie](#) joined on Nov 25
- ♦ [Betsy Bolster](#) joined on Nov 25
- ♦ [Stanley Stephens](#) joined on Nov 25
- ♦ [Kathy Hill](#) joined on Nov 25
- ♦ [John Beam](#) joined on Nov 25
- ♦ [Jim Swanson](#) joined on Nov 25

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Documents

- ♦ [rapvariables](#) *(Created on Nov 26 by Steve Newton-Reed)* **NEW**
- ♦ [SoCal_priorityprocess](#) *(Created on Nov 26 by Steve Newton-Reed)* **NEW**

Calendar

Tuesday (Dec 2)

10 AM [Southern California RAP m](#)

Thursday (Dec 4)

10 AM [Sierra/Cascade Terrestrial Meeting](#)

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Links

Group Links

- ♦ [FTP Maphost](#)
- ♦ [Habitat Conservation Division](#)
- ♦ [North Coast Watershed Assessment Prog](#)
- ♦ [Resource Assessment Program](#)
- ♦ [State Parks Inventory, Monitoring, and Asses Program](#)
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Professional Edition



Rapnet information & directory file sharing

RAPnet December 1, 2003

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<input type="checkbox"/>	Title	File	Size	Posted By	Modified
<input type="checkbox"/>	Central Valley and Central Coast		8 items		
<input type="checkbox"/>	Desert		8 items		
<input type="checkbox"/>	North Coast		8 items		
<input type="checkbox"/>	Sierra Nevada, Cascade Range, and Foothills		12 items		
<input type="checkbox"/>	Southern California		9 items		

0 documents

External Collaborators (2001-2003):



University of California, Davis:
School of Veterinary Medicine, Wildlife Health Center
Department of Environmental Horticulture
Genomic Variation Laboratory



University of California, Riverside,
Center for Conservation Biology



University of California, San Diego,
White Mountain Research Station



USGS-WERC,
San Diego, Sacramento



U.S. Fish and Wildlife Service,
Pacific Region



USDA Forest Service, Pacific Southwest Region
Pacific Southwest Research Station:
Forestry Sciences Lab,
Redwood Sciences Lab



Chico State Univ.,
Geography &
Planning Dept.

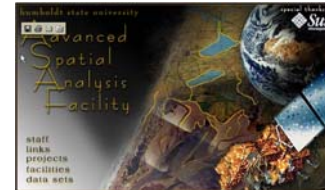


Pacific States Marine
Fisheries Commission

Resource Assessment Program



Riverside County
Integrated
Project



Humboldt State
University,
Advanced Spatial
Analysis Facility



California Department of
Parks & Recreation,
Inventory, Monitoring &
Assessment Program



California Native
Plant Society



Rocky Mountain
Elk Foundation

- Fresno State University Foundation
- Sacramento State University Foundation
- Los Rios Community College School District