

Santa Clara Valley Habitat Plan

**Stakeholder
Meeting
July 27, 2007**

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SANTA CLARA VALLEY HCP/NCCP PARTNERSHIP



 Jones & Stokes

Presentation Outline

- Major Concepts
 - What is monitoring and adaptive management?
- Components of Monitoring Chapter
 - Compliance
 - Effectiveness
 - Targeted studies
- Monitoring Outcomes

Major Concepts

- What is monitoring?
 - The “systematic” and (usually) repetitive collection of information typically used to track the status of a variable or system
 - I.e., A LOT of things: Compliance, status and trends, effectiveness of restoration and enhancement, species response, effectiveness of species-specific management, effectiveness of threat abatement, targeted and pilot studies

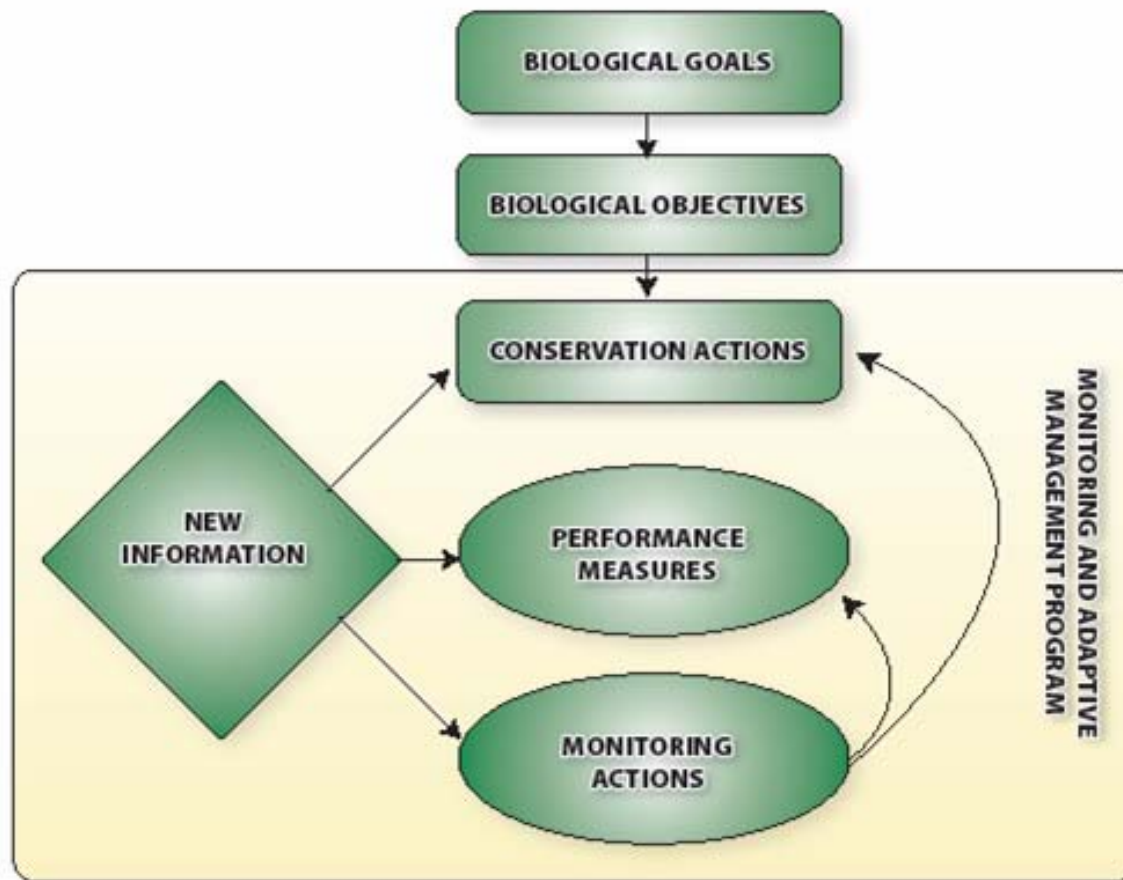


Santa Clara valley Habitat Conservation Plan/Natural Community Conservation Plan

Major Concepts

What is adaptive management?

- A decision process that promotes flexible decision making that can be adjusted in the face of uncertainties as outcomes from management actions and other events become better understood (US Dept of Interior)
- Includes opportunistic learning, hypothesis testing, management, monitoring, and directing the results of analysis and assessment back into the program (USGS)



Major Concepts

- What will the monitoring program include?
 - Structure and framework
 - Components of monitoring
 - Phases of monitoring
 - Monitoring by scale
 - Guidelines for monitoring
 - Specific actions by *phase* and by *scale*
 - Pilot testing and targeted studies
 - Data and reporting
 - Implementation framework

Major Concepts

- What will it NOT include?
 - Specific protocols for monitoring
 - Specific thresholds or triggers
 - Specific indicators for monitoring
 - Specific frequency intervals for monitoring

Components of Monitoring

Compliance

- Also called Implementation Monitoring
- Tracks the status of plan implementation
- Land acquisition
- Verification of flow releases
- Management activities reporting
- Monitoring and adaptive management reporting

Components of Monitoring

Effectiveness

- Effectiveness monitoring tracks the biological performance of the plan

1) Status and trends of resources and threats

- Acres of chaparral
- Number of spawning fish in targeted stream reach
- Mapped occurrences of star thistle

Components of Monitoring

2) Effects of management on natural communities, species, and threats

- % riparian cover after restoration
- Number of CRLF after pond enhancement
- Bullfrog population status after eradication effort on target pond



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Components of Monitoring

Targeted Studies

- Increase effectiveness by improving knowledge about the system and about management techniques.
- Could be considered a subset of effectiveness monitoring
- Objective is to ...
 - resolve critical uncertainties and
 - apply experimental management treatments

Other Issues

- Scale
 - Landscape
 - Natural community
 - Species
- Phases
 - Baseline or Inventory
 - Targeted studies, including pilot studies
 - Long-term management
- Biological Goals and Objectives

Adaptive Management

- Formal process for seeking and integrating independent advice and analysis from experts
- Prioritize objectives
- Evaluate monitoring
- Incorporate information from the literature
- Refine models
- Revise hypotheses based on results
- Adjust criteria, actions or objectives if necessary

Monitoring Outcomes

- Evaluate biological success of the Plan
- Raise the quality and leverage the results of monitoring in the study area
- Provide funding for systematic monitoring and adaptive management
- Coordinate biological information over a currently uncoordinated area
- Inform general understanding of status of rare species and effects of management