



Santa Clara Valley Habitat Conservation Plan/ Natural Community Conservation Plan

**Sierra Azul Wildlife
Connectivity
Workshop
October 11, 2006**



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SANTA CLARA VALLEY HCP/NCCP PARTNERSHIP



Presentation Outline

- ◆ Overview of HCP/NCCP
- ◆ Key Data Relevant to Corridors
- ◆ Covered Species
- ◆ Corridor Issues to Address

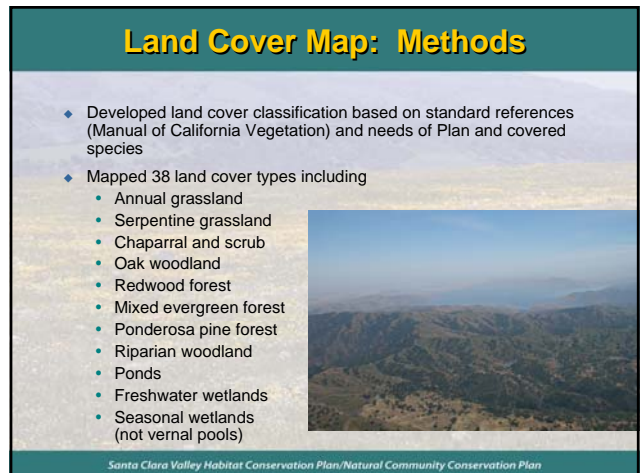
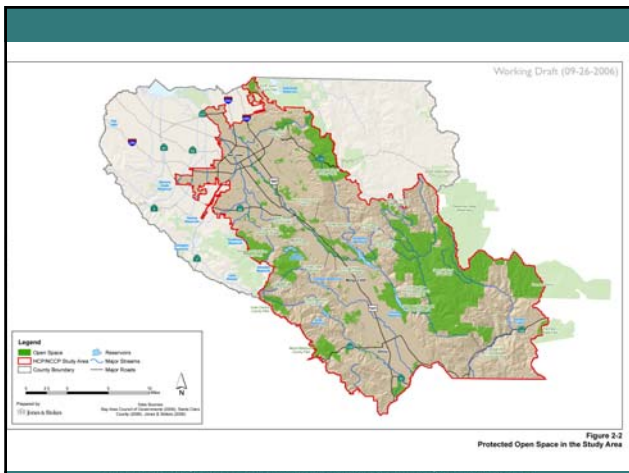
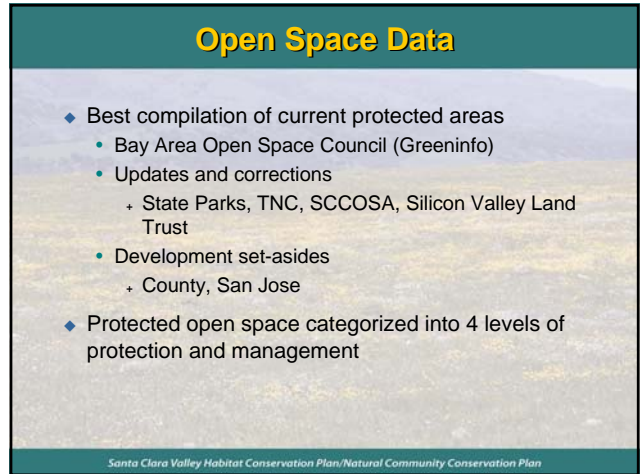
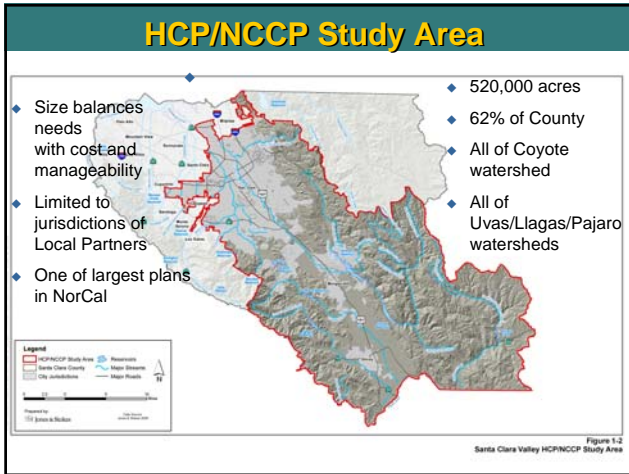
- ◆ Project Web Site: www.scv-habitatplan.org

What is an HCP/NCCP?

- ◆ Habitat Conservation Plan and Natural Community Conservation Plan
- ◆ Federal and State mechanism to effectively resolve conflicts between threatened and endangered species and development
- ◆ Plan to conserve species and habitats in exchange for permits to “take” threatened or endangered species
- ◆ What is “take”?
 - ◆ Under ESA, “take” is defined as “an action or attempt to hunt, harm, harass, pursue, shoot, wound, capture, kill, trap, or collect a species.”

NCCP Regulatory Requirements

- ◆ Conserve ecological integrity of large habitat blocks, ecosystem function, and biodiversity
- ◆ Provide for the conservation of covered species in plan area
- ◆ Provide linkages among reserves and with outside areas
- ◆ Support sustainable populations of covered species
- ◆ Sustain movement of species among reserves
- ◆ Provide range of environmental gradients and habitat diversity to support shifting species distributions



Land Cover Map: Methods

- ◆ Data Sources
 - Orthorectified color air photos
 - + March 2001 (9-inch resolution)
 - + Dec. 2003 (2-foot resolution)
 - + Dec. 2005 (1.5-foot resolution)
 - Soil and geology maps (1970's)
 - Initial field surveys to refine classification and land cover signatures
 - Land cover mapping by other agencies
 - + Sierra Azul Open Space (MROSD)
 - + Coyote Creek Parkway (County Parks)
 - + Valley oak woodland (CDF)

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Land Cover Map: Methods

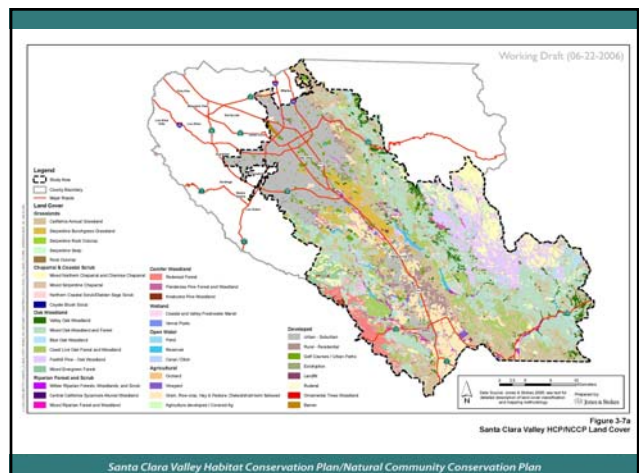
- ◆ Mapping Process
 - "Heads-up digitizing" (on screen)
 - Standardized approach
 - Photo signature recognition training
 - Photo signature consistency testing
 - 10-acre min. mapping unit for most types
 - 0.25-acre min. mapping unit for riparian, wetland
 - Periodic ground truthing
 - Post-mapping ground truthing
 - Formal error checking for urban/ag land cover types
 - Almost 9,000 polygons
 - Supplemental mapping from other sources

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Land Cover Map: Limitations

- ◆ Minimum mapping unit of 10 acres balanced need for detail with time and \$ limitations
- ◆ Some land cover types could not be mapped from available air photos so relied on other data sources (e.g., serpentine grassland)
- ◆ Could not map full diversity of natural communities—must rely on other measures (e.g., topography) or future work
- ◆ Inaccessibility limited field ground truthing

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Land Cover Map: Uses

- ◆ Assess gaps in protected areas (where linkages might be needed)
- ◆ Identify most likely movement zones across major barriers (combine with topography)
- ◆ Least Cost Path analysis for selected species



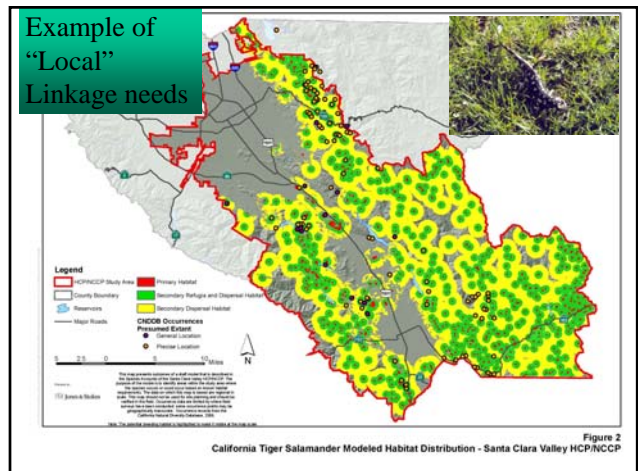
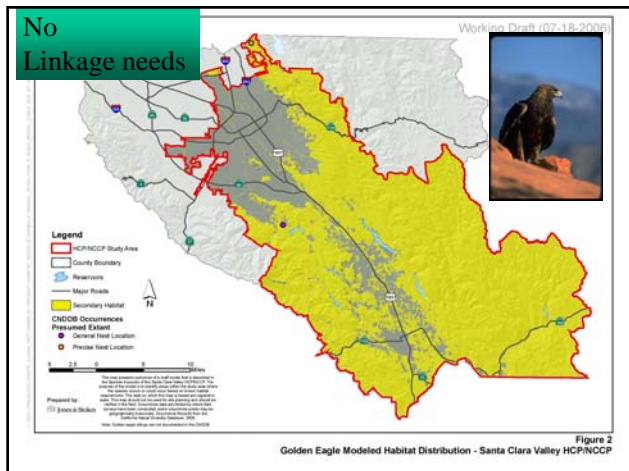
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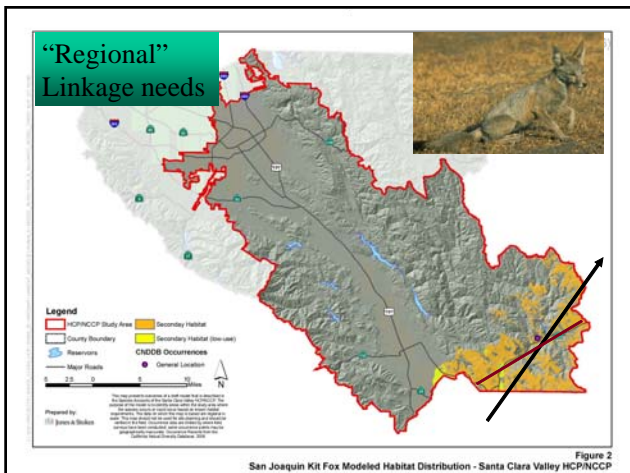
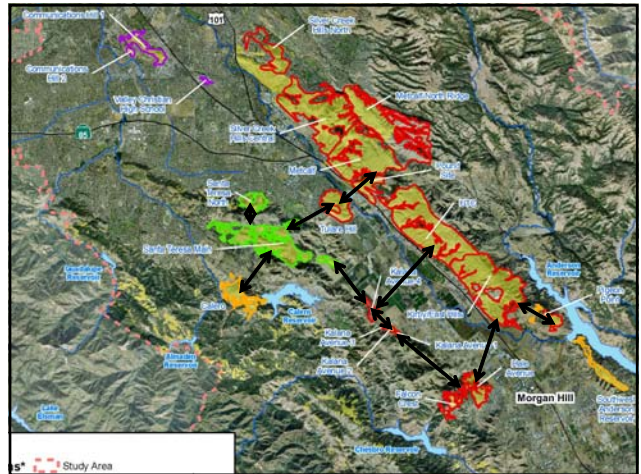
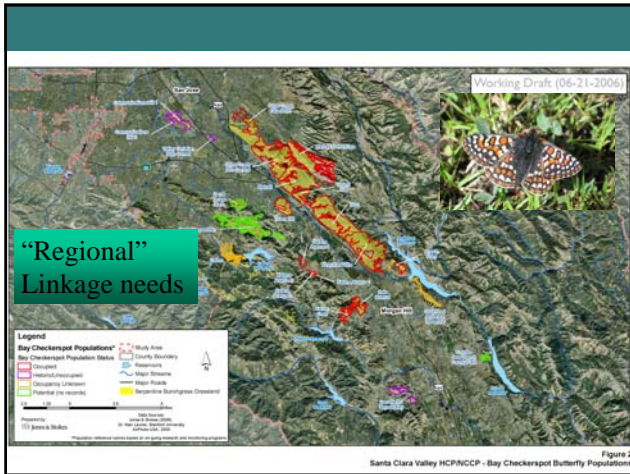
Covered Species with Linkage Needs

- ◆ Regional linkage needs (km+ scale)
 - Bay checkerspot butterfly
 - San Joaquin kit fox
 - Steelhead trout/Chinook salmon
- ◆ “Local” linkage needs (100 m scale)
 - California tiger salamander
 - California red-legged frog
 - Foothill yellow-legged frog
 - Western pond turtle
 - Least Bell's vireo?
- ◆ Planning Species



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Questions to be Addressed

- ◆ Scientific Questions
 - What are the linkage needs of the covered species within and connected to the study area?
 - Will covered activities degrade habitat connectivity? (if so, how can this effect be minimized?)
 - Do habitat linkages need to be enhanced? (if so, how?)
- ◆ Policy Questions
 - Can the plan address habitat linkage needs of other species ("planning species" such as American badger, mountain lion)?

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