

Habitat Connectivity and Wildlife Corridor Project

BOARD OF SUPERVISORS HEARING
VENTURA COUNTY PLANNING DIVISION
MARCH 12, 2019



1

Presentation

Project Background/Purpose

Project Components

- Maps / Overlay Zones
- Non-Coastal Zoning Ordinance Revisions, including zoning map revisions (NCZO Article 18)
- General Plan Amendments
- CEQA Exemption

Planning Commission Recommendations – Integrated throughout topical discussions

2

Board of Supervisors Direction

- 2011** BOS approved Initial Study Assessment Guidelines (ISAGs) updates that require evaluation of potential impacts to wildlife movement / corridors for discretionary projects. Cites *South Coast Missing Linkages Report* as a source for identifying wildlife corridors.
- 2015** BOS approved consultant contract for General Plan Update that included wildlife corridors program, but ultimately elected to move ahead separately from the General Plan Update.
- 2017** BOS approved scope of work to establish project objectives and support development of a comprehensive set of regulatory tools.

Project Purpose and Objectives

Purpose – Preserve and enhance habitat connectivity between large, natural areas, as well as the native vegetation linkages within such corridors, to ensure the future health of the County's natural resources.

Intent - Ensure that future development is designed and constructed to allow native wildlife and plant species to move between natural lands, while protecting individual property rights.

Objectives

- Minimize Indirect Barriers
- Minimize Direct Barriers
- Minimize Vegetation Loss and Habitat Fragmentation
- Protect/Enhance Chokepoints

Delineating Corridors – South Coast Missing Linkages (SCML) Project

- **Animal and plant species were identified** by a large group of scientists, regulators, academics, land managers, private property owners, businesses, and non-profits to represent a diversity of habitat needs and movement patterns.
- **Computer mapping and field work** were conducted based on this information to define/delineate areas regarded as the state's most important natural resource linkages.
- **Best potential movement routes** were identified for the selected focal species.
- **SCML Linkage maps have been used by other jurisdictions and public agencies:**
 - **County of Los Angeles** as part of its Significant Ecological Areas (SEAs) program.
 - **Southern California Association of Governments** incorporated SCML maps into 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy.
 - **Southern California National Forests** (Los Padres, Angeles, San Bernardino, and Cleveland) incorporated the SCML into Resource Management Plans.

Other Linkage Mapping Projects

- **CA Dept. of Fish and Wildlife and Caltrans - California Essential Habitat Connectivity Project (2010)**
 - Mapped essential wildlife linkages statewide to support the development of efficient transportation and land-use patterns that reduce wildlife-vehicle collisions.
- **The Nature Conservancy completed a linkage mapping project (2018)**
 - "Taking steps to make sure habitats are connected to allow plants and animals to move in response to climate and land use change is critical to maintain the state's globally significant biodiversity."

Both connectivity projects resulted in similar linkage maps to the SCML.

"The best available science and modeling would yield similar results."

"The SCML modeling approach is very much a standard protocol."

Professor Paul Beier, Ph.D. –
Wildland Resource Science
(Specializes in science-based
design of wildlife corridors)

Misconceptions

1. The data used to generate the linkage model is too old.

- The animal and plant species used as focal species are still present in Ventura County.
- The larger, natural habitats that the linkages connect are still present (e.g., Santa Monica Mountains, Los Padres National Forest, Ventura/Santa Clara River systems)
- Despite additional development since the model was completed, the general linkage designs still reflect the areas animals and plants are likely to use to move through the landscape.

2. The model was not peer reviewed.

- Cambridge University Press (2006. South Coast Missing Linkages: Restoring connectivity to wildlands in the largest metropolitan area in the United States.)
- Conservation Biology (Forks in the road: Choices in procedures for designing wildlife linkages.) **This paper has been cited ~ 400 times; one of the most widely cited sources on wildlife linkage design.**

7

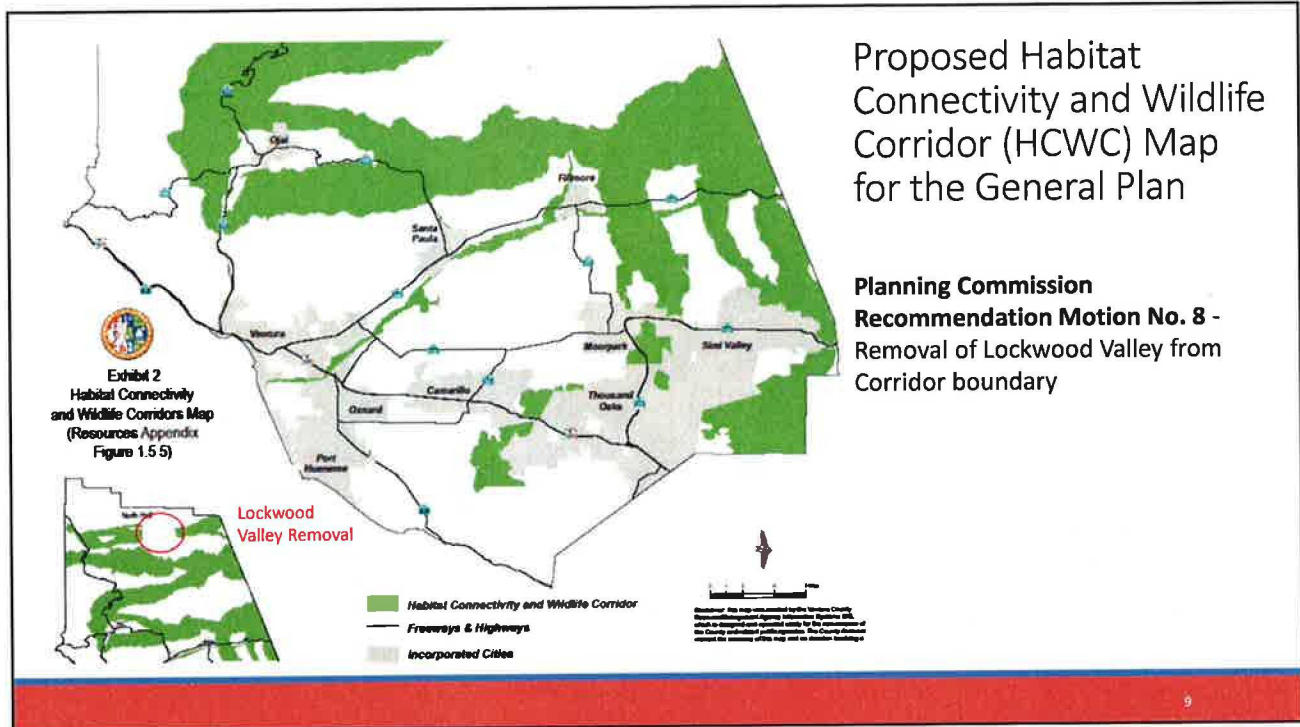
Linkages in Ventura County

Sierra Madre - Castaic
(East/West)

Santa Monica – Sierra Madre
(North/South; includes Simi
Hills and Santa Clara River)

Ventura River





Planning Commission Recommendation (Motion No. 1)

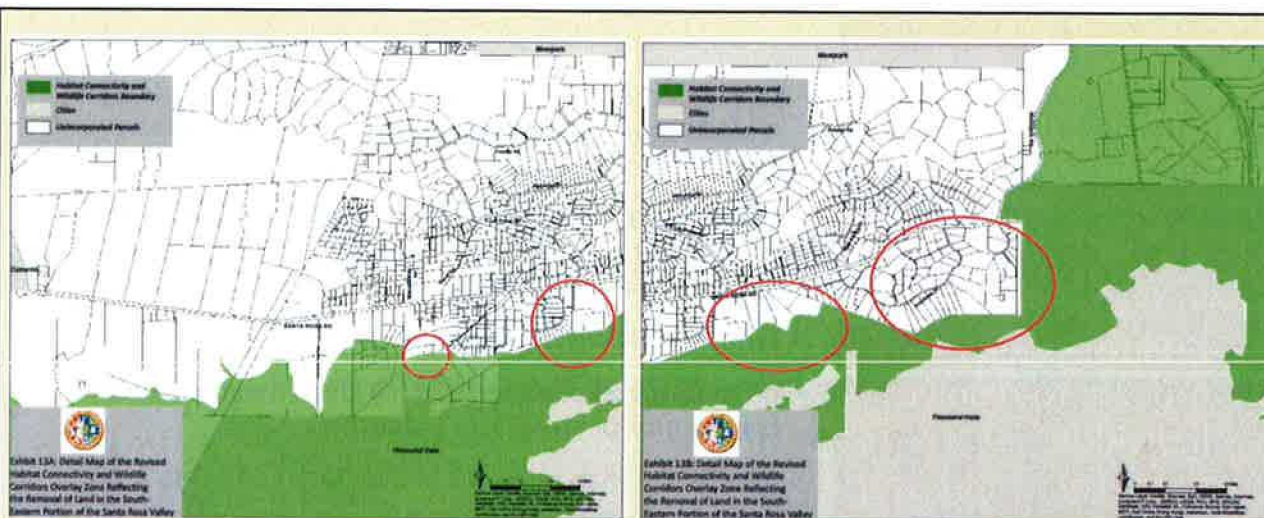
Create appeals
process to resolve
individual
property
boundary issues.

- Staff explored feasibility of creating appeals process; would require establishing fixed standards in the ordinance.
- Once the HCWC overlay zone is established, boundary adjustments require NCZO amendment and General Plan amendment
- Proposed HCWC overlay zone map was reviewed
- Boundary irregularities within a given neighborhood, community, or street were identified
- Resulted in map revisions in Oak Park and Santa Rosa Valley



Revised boundary near Oak Park

11



Revised boundary near Santa Rosa Valley

12

Regulations Overview

THIS IS WHAT THE PROPOSED ORDINANCE DOES

- Limits on outdoor night lighting.
- Limits disturbance around surface water features and important road crossings.
- Limits the amount of impermeable fencing.
- Encourages compact siting of structures in two locations within the Corridor.
- Prohibits intentional planting of invasive plants.

THIS IS WHAT THE PROPOSED ORDINANCE DOES NOT DO

- It does not require you to give up half your property.
- It does not prohibit you from clearing vegetation for fire protection.
- It does not require you to remove any existing structures.
- It does not prohibit use of lights for security.
- It does not prohibit development on your property.

13

Lighting

- **Intent of regulations** – To minimize potential impacts of outdoor night lighting on animals and insects.
- **Why it matters / Relationship to wildlife movement**
 - Artificial lights can cause disorientation for nocturnal animals and insects, including pollinators
 - Disrupts feeding, mating, movement, predator-prey interactions, reproduction
- **Aligns closely with recently-adopted Dark Sky Ordinance**
 - Lighting terms – Definitions; many identical provisions (greenhouse regulations, outdoor sporting events, essential lighting, security lighting)

“....artificial light at night disrupts nocturnal pollination networks and has negative consequences for plant reproductive success.” (Knop, E & Zoller, et., al., 2017. Nature. 548. 10.1038/nature23288)

14

Lighting

General Regulatory Approach:

- Shield, direct downward and away from natural areas
- Limit brightness
- Limit fixture heights
- Require “warmer” color lights
- Night lighting for enclosed agricultural operations



Fully Shielded / Directed Down



Porch lights and under-eave lights may be partially shielded

15

Lighting Exemptions

- Lighting for facilities, equipment, or activities that is subject to preemptive state or federal regulations
- Lighting in the road right-of-way installed by a public agency
- Temporary emergency lighting
- Intermittent lighting needed for nighttime agricultural activities and oil and gas exploration
- Seasonal or festive lighting
- Lighting for a home swimming pool
- Lighting that is 60 lumens or less

16

Planning Commission Recommendation (Motion No. 2)

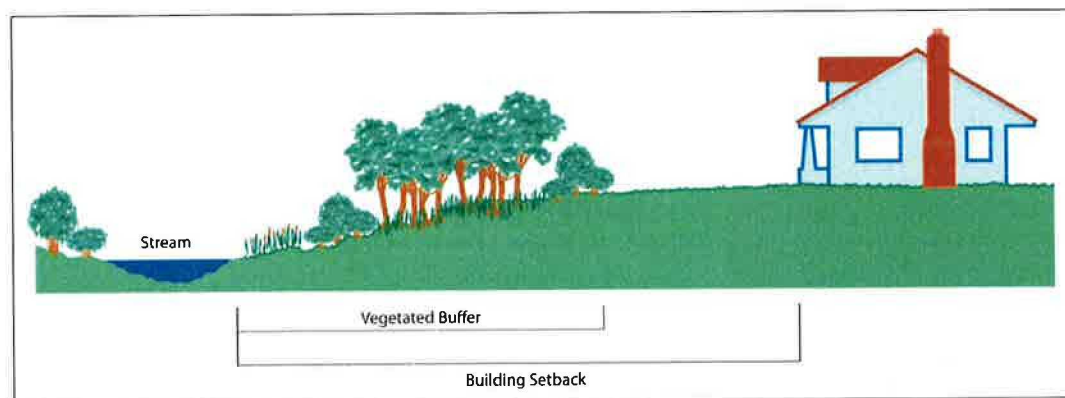
Request that
County Sheriff
review security
issues related to
lighting
standards.

Planning Division staff received input from Captain James Fryhoff; he also consulted on the Dark Sky Ordinance.

- Exemption for **essential** security lighting that can remain on at all times (if 850 lumens or less).
- Brighter security lighting is allowed if used with motion sensors.
- Light color can be increased if necessary for proper functioning of security camera.
- Security lighting controlled by motion sensors or dimmers is a better deterrent to crime than lighting that is left on.
- Lighting that is fully-shielded reduces glare, which is more appropriate for security lighting.

17

Surface Water Features



18

Buffers for Surface Water Features (SWF)

- ❑ **Intent of Regulations** – Minimize impacts to riparian areas and disturbances to wildlife in riparian areas by limiting the amount of development and vegetation removed within these areas.
- ❑ **Why it matters / Relationship to wildlife movement** – Surface water features, including drainages that are dry most of the year, can provide plants and wildlife with a path to move through a landscape.
 - SWFs provide food and areas for breeding and resting
 - Local research shows SWFs are especially important for post-fire survival. (S. Anderson/CSUCI)
- ❑ **Applicability** - SWFs throughout the HCWC Overlay Zone; based on National Wetlands Inventory; Does not include human-made impoundments.

19

Planning Commission Recommendation (Motion Nos. 5 & 7)

Reduce buffer from 200 feet to 100 feet

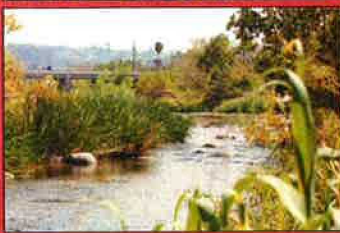
Review GIS layer to check for human-made features

Buffer around surface water features was reduced from 200 feet to 100 feet. New map was created with this buffer.

Planning Division Biologist reviewed the water feature layer, compared it to historical aerial imagery and removed additional human-made impoundments.

20

Buffers for Surface Water Features – Regulatory Approach



- Limit the amount of vegetation removal within these areas.
- SWFs include a **100-foot** buffer.
- Require a Planning Director-approved permit for new development, installation of wildlife impermeable fencing, and vegetation modification within the buffer area.
- **Clearing with hand-operated tools is exempt.**
- Remove invasive plants with a zoning clearance.
- Allow “reconsideration” of SWF by Planning Director (**first hour is free**).

21

Misconceptions

1. The surface water feature on my property shouldn't be included because it only has water in it when it rains. (“Ephemeral streams”)

According to the U.S Environmental Protection Agency ephemeral streams:

- Make up over 81% of all streams in the arid and semi-arid Southwest (including CA).
- Can provide the same ecological and hydrological functions as perennial streams
- Reduce erosion and stabilize stream banks
- Improve water quality and water storage
- Aid in floodplain management
- **Provide a wide array of ecological functions including forage, cover, nesting, and movement corridors for wildlife; used by less mobile species that cannot move over large distances.**

(EPA/600/R-08/134 ARS/233046 November 2008)

22

Misconceptions

2. Surface water features are identified using unreliable satellite imagery and they are not accurate.

- Provides detailed information on the abundance, characteristics, and distribution of wetlands and vegetation communities that support wetland habitats.
- Produced, maintained, and supported by the U.S. Fish & Wildlife Service and the Federal Geographic Data Committee, incorporates data from USGS/National Hydrography Dataset.
- Uses historic hard copy maps, aerial imagery, and deep water and wetland spatial data that are updated.
- The Planning Division has used National Wetlands Inventory data to determine potential impacts for discretionary projects for many years.
- Ordinance allows for “reconsideration” by Planning Director.

23

Road Crossing Structures



- **Intent of Regulations** – To facilitate wildlife movement under and across roads by maximizing the amount of vegetative cover. (Board of Supervisors objective: Minimize Vegetation Loss and Habitat Fragmentation)
- **Why it matters / Relationship to wildlife movement** – Roads can be harmful to wildlife. Many animals die after being struck by cars; roads can disrupt normal animal movements.
 - Limiting the amount of vegetation removal around crossings can increase their use by animals.
- **Applicability** - 98 crossing structures (culverts and bridges) throughout the HCWC. (Two crossings removed with Lockwood Valley removal.)

24

Evaluation of Crossing Structures

- Staff evaluated over 400 state and local road crossings (culverts, bridges, overpasses) that are within the HCWC.
- 100 structures were identified as having “high connectivity value” for wildlife passage and would be subject to the regulations. Evaluation criteria included:
 - Presence of vegetation
 - Light visibility at entrances
 - Openness ratio
 - Suitable habitat nearby
- Consulted with biologists for National Park Service, Caltrans, and the staff from County’s Transportation Division.

25

Buffers for Road Crossings—Regulatory Approach



- Limit the amount of vegetation removal within these areas.
- Establish a 200-foot wide buffer from entry or exit point of a crossing structure.
- Requires a Planning Director-approved permit for **new** development, additions to existing structures, installation of wildlife impermeable fencing, and vegetation modification within the buffer area.

26

Buffer Exemptions – SWFs and Crossings

Types of vegetation modification and development within buffer areas that are exempt:

- Planting/harvesting of crops or orchards that will be commercially sold; livestock grazing
- Conducted to comply with a condition of an existing County-approved land use entitlement, for existing legally-established structures
- Conducted to comply with any federal, state or local law or regulation, or performed by a public agency on publicly owned- or maintained-property
- Conducted by a conservation organization for the purpose of maintaining/enhancing biological habitat or wildlife movement
- Development within a public road right-of-way
- Development that is dependent on being located within a crossing structure or surface water feature (e.g. bridge)
- Modification of intentionally planted landscaping
- Repair or maintenance of an existing, legally-established structure or fence

27

Planning Commission Recommendations – Fire Risk

- **Clarify what effect vegetation modification regulations have on the Fire Department brush clearance requirements and fire risk.**
- **Revise vegetation modification exemption to state “as allowed by” instead of “as required by” the Fire Department. (Motion Nos. 4 and 10)**
 - Ordinance revised to allow property owners to conduct vegetation and fuel modification within surface water features and crossing structures using hand-operated tools. No permit or approval is required from either Ventura County Fire Protection District or Planning Division for property owners to do so.
 - The Ventura County Fire Protection District requested that reference to Ordinance 30 be added to exemption language at Sec. 8109-4.8.3.2.k

28

Additional Regulatory Considerations Related to Surface Water Features

- **The U.S. Army Corps of Engineers – Section 404 of the Clean Water Act**
Permit trigger: Moving (discharging) or placing material into or within U.S. Army Corps of Engineers jurisdictional areas.
- **Regional Water Quality Control Boards – Section 401 Water Quality Certification**
Permit trigger: Whenever a U.S. Army Corps of Engineers 404 Permit is required, or whenever an activity could cause a discharge of dredged or fill material into waters of the U.S. or wetlands.
- **California Department of Fish and Game - Streambed Alteration Agreement**
Permit trigger: A project that alters the bed, banks or channel of a stream, or the adjacent riparian vegetation, including activities that substantially obstruct or divert the natural flow of a river or stream.

29

Invasive Plants



Pampas Grass

- ❑ **Intent of regulations** – Limit the spread of invasive plants – limit degradation of habitat within HCWC Overlay Zone. (Board of Supervisors objective: Minimize Vegetation Loss and Habitat Fragmentation)
- ❑ **Why it matters / Relationship to Wildlife Movement** – Invasive plants can increase fire frequency, reduce habitat quality, clog creeks and river systems, outcompete natives for water. All of this can impact functional connectivity and wildlife movement.
- ❑ **Applicability** – Applies throughout the HCWC Overlay Zone
- ❑ **General Requirements** – Intentional planting of invasive plants is prohibited unless planted as a commercial crop or grown as commercial nursery stock.
- ❑ Based on California Invasive Plant Council Invasive Plant Checklist for California Landscaping.

30

Fencing

- ❑ **Intent of regulations** – To minimize barriers to food, water, and shelter; to enhance opportunities for reproduction necessary to sustain genetic diversity.
- ❑ **Why it matters / Relationship to wildlife movement**
 - Movement between protected habitats to access food and water and/or access potential mates can be blocked by impermeable fencing.
 - Larger animals, including birds, can become entangled in impermeable fencing.
 - Smaller animals can become trapped in cavities within open-top (noncapped) fence posts.

Board of Supervisors objective: To minimize direct barriers

31

Fencing

Applicability – New or replacement wildlife impermeable fencing **that forms an enclosed area** on lots zoned Open Space (OS) or Agricultural Exclusive (AE), including installation of wildlife impermeable fencing to facilitate livestock grazing.

The standards and requirements of NCZO Sec. 8106-8.1 (Fences, Walls and Hedges), also apply.

32

Fencing

Wildlife Impermeable Fencing – A *fence* or wall, other than a retaining wall, that prevents various species of wildlife including amphibians, reptiles, mammals, and birds, from freely passing through with little or no interference. Includes one or more of the following design features:

- 1) Any *fence* that is higher than 60 inches above grade, inclusive of any wire strands placed above a top rail of a *fence*.
- 2) Electric *fences* comprised of any material or number of electrified strands.
- 3) Any *fence* that is constructed of wrought iron, plastic mesh, woven wire, razor wire, chain link or that consists entirely of a solid surface, such as cinderblock.

33

Fencing – General Standards

Exempt – Impermeable fence installed within 50 ft. of legally established dwelling or structure related to an agricultural use.



- **Zoning Clearance** - Up to 10 percent of the cumulative area may be enclosed by impermeable fencing. **Example:** On a 40 - acre lot, up to four acres could be enclosed with impermeable fencing with a zoning clearance.
- **Discretionary Permit** – More than 10 percent of cumulative area enclosed by impermeable fence.

34



Impermeable Fencing Enclosures

35



Fence types NOT subject to regulations

36



Northern Flicker; Fence lizard



Cement cap

On lots zoned OS or AE, new *fence* posts, corner posts, or gate uprights with open, vertical pipes that could trap small birds or other animals shall be entirely filled with concrete, sand, gravel, or other material, or covered with commercial caps.

37

Fence Exemptions

- Located within 50 feet of an exterior wall of a legally-established dwelling or *structure* related to an agricultural use.
- Repair or Maintenance of Existing, Legally Established Impermeable Fencing.
- Used to enclose commercially grown agricultural crops or products.
- Installed on publicly-owned or -maintained property for the purpose of restricting wildlife from entering a road right-of-way or directing wildlife toward a *wildlife crossing structure*.
- Used for habitat protection or a restoration project when specified by a habitat preservation plan, habitat restoration plan or similar plan.
- Installed on a lot that has an area of 10,000 square feet or less in size, regardless of base zoning.
- Installed to control access to outdoor shooting ranges.

38

Critical Wildlife Passage Areas (CWPA)

Intent of regulations – Create overlay zone where compact siting standards apply. Standards require consolidation of future development on individual lots to maximize areas of undeveloped space.

Why it matters / Relationship to Wildlife Movement - Protect key areas within regional wildlife linkages that face potential loss of connectivity due to future development; can lead to additional barriers to wildlife movement and plant dispersal due to vegetation clearing, fragmentation of open space, narrowing of corridor.

Board of Supervisors objective: Address chokepoints, minimize vegetation loss and habitat fragmentation

39

Critical Wildlife Passage Area Factors

CWPA Factor	Description
Government Jurisdiction	CWPAs may only be located in unincorporated lands
Configuration of Protected Lands	Provide high quality habitat areas where wildlife moves.
Proximity to, extent of urban development	Narrow areas near cities or urbanized development were generally considered higher priorities. Areas with few roads, existing development, or access to services were considered lower priorities
Habitat Value	Areas with intact native vegetation, and to a lesser extent any vegetative cover were considered higher priority
Proximity to Major Water Bodies or Water Courses	Areas between or among water bodies were considered high priorities
Proximity to Roadway Crossings	Areas with functioning crossings were considered higher priorities
Existing Land Uses	Current land uses and their intensity of use were considered (e.g. grazing, mining, etc.)
Land Use/Zoning Designation	Allowed uses and minimum lot size were used as factors

40

Planning
Commission
Recommendation
(Motion No. 9)

Remove Tierra
Rejada Valley
from the Critical
Wildlife Passage
Area Overlay
Zone

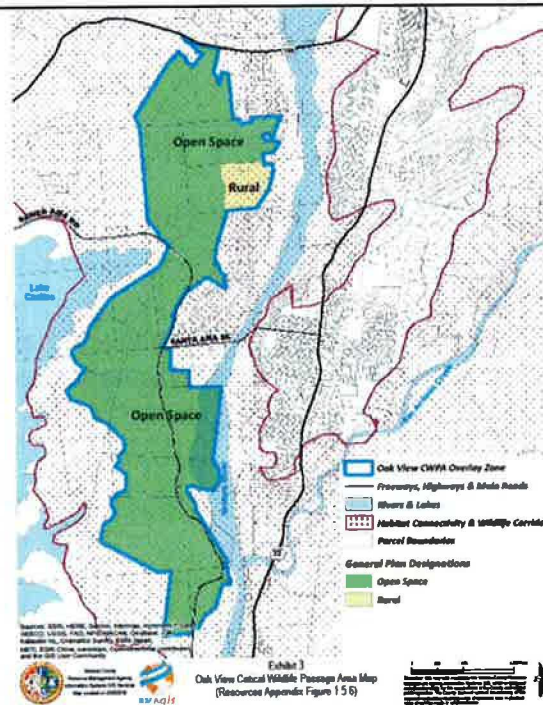
Three subareas identified within larger corridor

- Oak View
- Simi Hills
- Tierra Rejada

Based on Planning Commission recommendation, Tierra Rejada Valley was removed from the CWPA overlay zone.

41

Oak View CWPA

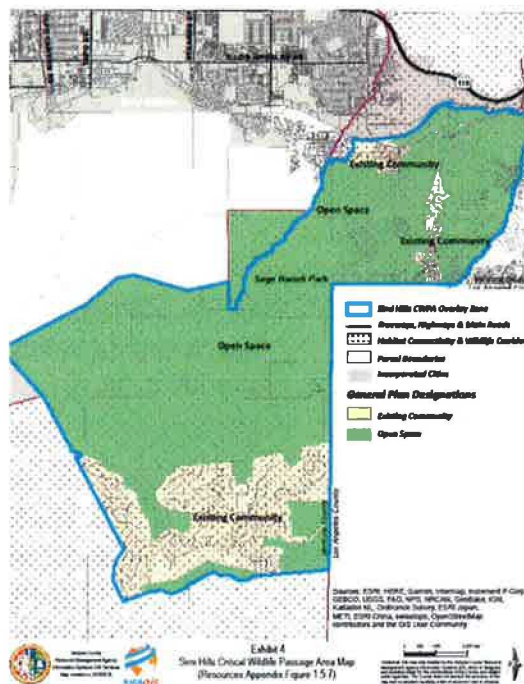


42

Planning Commission Recommendation (Motion No. 6)

Consider including the entire Boeing, Santa Susana Field Lab land in the HCWC overlay zone;

Also added to CWPA



43

Additional Staff Recommendation

Staff added a recommendation to revise the CWPA "Compact Siting Standard for Undeveloped Parcels:"

Replace the "50% standard" to allow initial principal structure anywhere on the property with future development sited within 100 ft. of existing structure, public road or trail, or internal agricultural access road.

44

Additional Planning Commission Recommendations

- **Clarify the effect of the ordinance on properties with granted conservation easements. (Motion No. 3)**

Ordinance includes language that exempts features that have been legally encumbered, (surface water features and wildlife crossing structures).

- **Modify vegetation modification exemption to include all bona fide conservation efforts. (Motion No. 11)**

Ordinance was revised to exempt all vegetation modification conducted by a conservation organization for the purpose of maintaining or enhancing biological habitat or functional connectivity.

45

General Plan Amendment

Proposed General Plan amendment (Exhibit 18) includes:

- Added information related to habitat connectivity and wildlife movement to both the Goals, Policies, and Programs (GPP) and the Resources Appendix;
- The HCWC and Critical Wildlife Passage Area Maps to the Resources Appendix;
- Updates to the GPP Glossary to add relevant terms; and
- Revisions to goals and policies related to biological resources.

The existing General Plan provides the necessary framework for these amendments, as it explicitly recognizes the importance of biological resources and the need to facilitate habitat connectivity.

46

Goal Revision

1.5.1 Goal

Identify, preserve and protect significant biological resources in Ventura County from incompatible land uses and development. Significant biological resources include *endangered, threatened or rare species* and their habitats, *wetland habitats, coastal habitats, wildlife migration corridors that facilitate habitat connectivity and wildlife movement*, and *locally important species/communities*.

47

Policy Revisions

1.5.2 - Policies

6. Based on the review and recommendation of a qualified biologist, the design and maintenance of road and floodplain improvements, including culverts and bridges shall incorporate all feasible measures to accommodate wildlife passage.

7. When considering proposed *discretionary development*, County decision-makers shall consider the development's potential project-specific and cumulative impacts on the movement of wildlife at a range of spatial scales including local scales (e.g., hundreds of feet) and regional scales (e.g., tens of miles).

8. Development within the Habitat Connectivity and Wildlife Corridors and the Critical Wildlife Passage Areas shown in Figures 1.5.5 – 1.5.7 of the Resources Appendix, shall be subject to the provisions and standards of the Habitat Connectivity and Wildlife Corridor overlay zone (HCWC overlay zone) and the Critical Wildlife Passage Areas overlay zone (CWPA overlay zone) as set forth in the Non-Coastal Zoning Ordinance.

48

California Environmental Quality Act (CEQA)

Project is considered exempt from CEQA

- It can be seen with certainty that there is no possibility the project may cause a significant effect on the environment. **CEQA Guidelines section 15061(b)(3)** . "Significant effect on the environment" is expressly defined by the California Public Resources Code as that which effects "a substantial, potentially substantial, *adverse* change in the environment." (Cal. Pub. Resources Code, § 21068)
- Because the project consists of regulations intended to benefit the environment, it is also exempt pursuant to **CEQA Guidelines sections 15307 and 15308**, *Actions by Regulatory Agencies for Protection of Natural Resources*, and *Actions by Regulatory Agencies for Protection of the Environment*.
- There is no reasonable possibility that the project will have a significant effect on the environment due to unusual circumstances. (**CEQA Guidelines section 15300.2**)

49

Public Notice and Public Comment

- Engaged a broad range of stakeholders (farmers, ranchers, regulatory agencies, environmental organizations, oil/gas representatives, CoLAB, private land owners, cities, academic institutions, County family)
- Sent a one-page letter to all affected property owners on March 1. (~ 4,300)
- Emailed interested parties on March 1 (~ 400 people)
- Provided project materials online on March 1 (Maps, Revised Ordinance)
- Placed newspaper ads in Lockwood Valley, Ojai Valley, Ventura County Star 10 days prior to hearing
- SB 18 Tribal Consultation conducted

50

Habitat Connectivity and Wildlife Corridor Project

Questions

BOARD OF SUPERVISORS HEARING
VENTURA COUNTY PLANNING DIVISION

March 12, 2019

