



# IRVINE-LAGUNA WILDLIFE CORRIDOR

Connecting Habitats from Mountains to Coast

## A UNIQUE URBAN WILDLIFE CORRIDOR



The Irvine-Laguna Wildlife Corridor is a multi-benefit habitat link between mountain and coastal ecosystems in South Orange County. The Corridor, when completed, will provide a critical connection between the two ecosystems to ensure that native wildlife will continue to populate these wilderness areas.

The Corridor is comprised of two distinct components: a man-made portion within the City of Irvine east of the I-5 freeway, and a section through a less densely developed area that follows historic creek paths, now part of the flood control district/system. The current efforts by Laguna Greenbelt, Inc. (LGB) to complete the Corridor treat these two portions separately, providing technical aid for the Irvine section and working to enhance the effectiveness of the less developed portion.

### 1st

#### PRIORITY

Ranked first for climate resiliency by the Southland Regional Power In Nature Coalition (30 x 30)

### 6+

#### MILES

Approximate length of the corridor from inland Irvine foothills to coastal wilderness parks

### 240 +

#### ANIMAL NEIGHBORS

Benefits extend to these and more:  
bobcat, coyote, roadrunner,  
cottontail, cactus wren,  
gnatcatcher, Least Bell's Vireo

### 20+

#### YEARS

Length of time Laguna Greenbelt, Inc. has been advocating for this wildlife corridor

#### Project Inquiries:

Terryjwatt@gmail.com

#### Media and Speaking Inquiries:

LagunaGreenbeltMedia@gmail.com

#### On the Web:

[www.wildlifecorridor.org](http://www.wildlifecorridor.org)

[www.lagunagreenbelt.org](http://www.lagunagreenbelt.org)

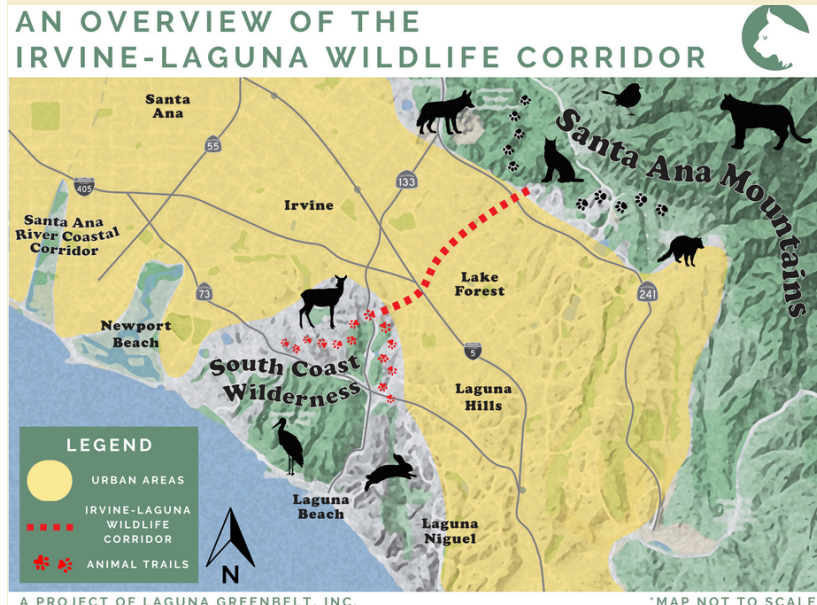


# WILDLIFE CORRIDOR

## LOCATION AND SIGNIFICANCE

Today, the Irvine Laguna Wildlife Corridor is partially functional. It begins at the northern edge of 22,000 contiguous protected coastal acres made up of Aliso and Wood Canyons Wilderness Park, Crystal Cove State Park, and Laguna Coast Wilderness Park, along with open space in the cities of Irvine, Laguna Beach, Laguna Woods, and Newport Beach. Ideally, an animal traveling from the coast to the foothills would start near Lake Forest Drive and Bake Parkway, would travel over six miles - through the concrete channels of Irvine Spectrum, along the eastern edge of the Great Park, eventually exiting the corridor into the foothills of the Santa Ana Mountains. Here, animals have access to more than 150,000 acres of wilderness, which includes Cleveland National Forest, Whiting Ranch and Limestone Canyon.

A BOBCAT EXPLORES THE CORRIDOR AT NIGHT



## GENETICS

### WHY ANIMALS NEED TO MOVE

Orange County's coastal wilderness has been increasingly isolated from other wildlands for at least two decades. Urban development has rendered the 22,000-acre coastal wilderness an ecological island for wildlife. Without a functioning wildlife corridor connecting to the Santa Ana Mountains, wildlife in the coastal wilderness is threatened with eventual local extinction due to small, genetically isolated populations. Biologists have identified coastal bobcat, mule deer, grey fox, California gnatcatchers and cactus wren populations as experiencing signs of problems related to fragmentation and isolation. When completed, the corridor will carry future generations of the target species to the opposite end of the corridor and ensure access to genetically diverse mates.

Despite the challenges that exist, there is hope. Currently, there are five other major wildlife crossings being constructed in the State of California, and wildlife corridors are increasingly gaining public support.

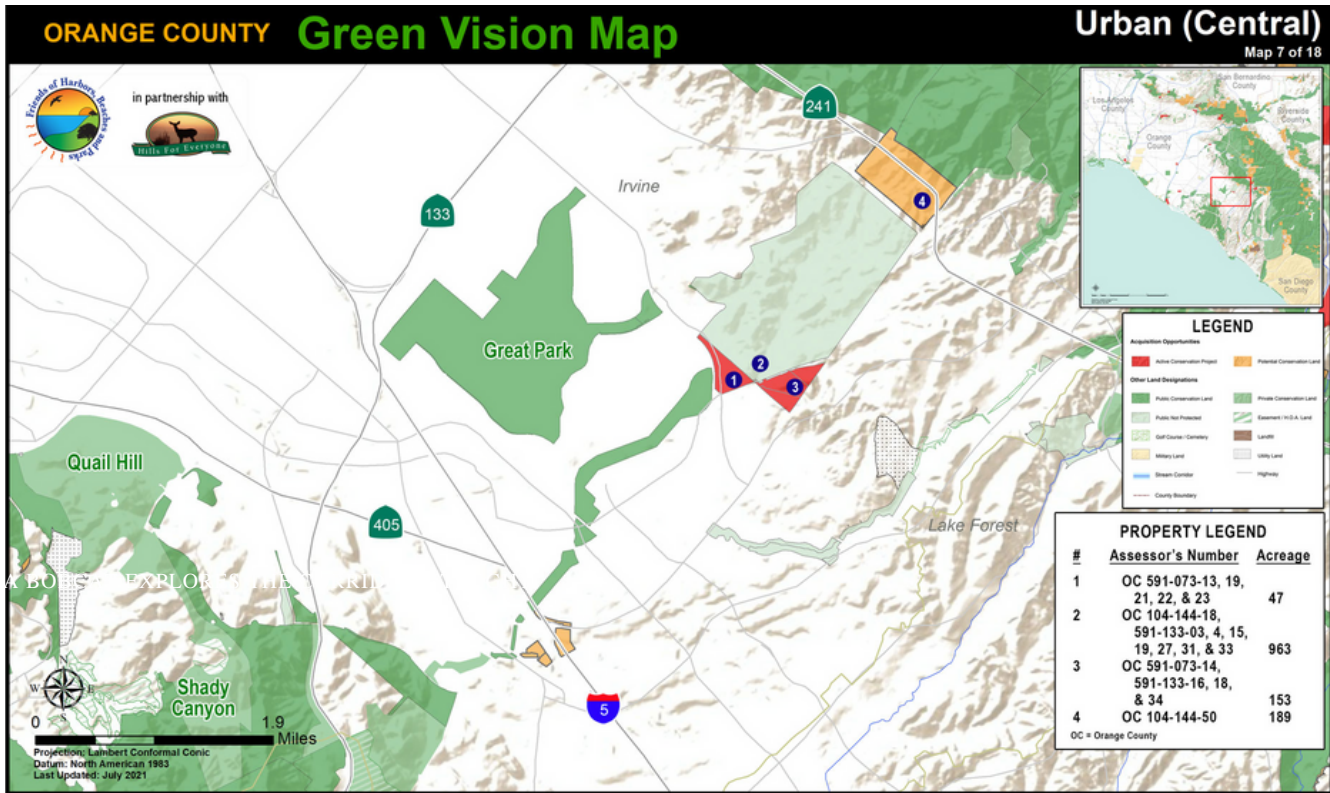
The Irvine-Laguna Wildlife Corridor is unique because it is a habitat space through an already urbanized landscape. This 'rewilding' effort means that all sections of the corridor space must be wildlife-friendly for the corridor to function well. Road crossings, tunnels, and vegetated spaces must accommodate animal movement. **Like a string of pearls, if one piece fails, the whole strand fails.** We are working hard with our coalition to make sure every piece of the corridor will function in the short and long term.

## Understanding Corridors

# LIKE A STRING OF PEARLS

# THE 30 X 30 INITIATIVE

## RACING TO PROTECT LANDS



As temperatures increase due to climate change, we are looking for ways to encourage resilience and adaptation in our communities. In this new reality, some animals and plants may need to travel and shift into new habitats. We can support these natural processes with our development practices, policies, and individual actions. There must be protected lands that contain habitable ecosystems to ensure the survival of native species. We are fortunate that the South Coast Wilderness/Greenbelt and surrounding lands are being considered a priority project by the State of California's 30 x 30 initiative for "climate resilience" in Orange County.

The Laguna Greenbelt and surrounding lands are joined to natural lands to the north and east of Irvine via the Irvine Laguna Wildlife Corridor, with the Corridor being an essential spine connecting more than 100,000 acres of habitat. Not only do these acres act as green space to support plants and wildlife biodiversity, but they provide many co-benefits, such as a place for water to travel during the rainy season, a historic and spiritual connection to pre-modern lands, and a place for community education. These functions support climate change adaptation for plants, animals and human society. More:

<https://www.fhbp.org/resources/30x30-campaign/>

## Understanding Climate Change Adaptation

# PRIORITIZING A CLIMATE CHANGE CORRIDOR

Climate adaptations are the steps we take to build resiliency for expected changes. In 2009, state and local officials identified lands adjacent to the Irvine Laguna Wildlife Corridor as essential 'climate adaptation corridors.' Officials recommend that these and surrounding areas receive priority consideration for ecological care, since they hold essential qualities to help plants and animals adapt to our changing climate.

Land managers and policy makers can use these recommendations as a guide when considering where to invest climate adaptation resources for restoration, conservation, and connectivity projects.

More at: <https://bioone.org/journals/natural-areas-journal/volume-29/issue-4/043.029.0406/Managing-for-Climate-Change-within-Protected-Area-Landscapes/10.3375/043.029.0406.short>

# PARTNERS

## FIVEPOINT AND CITY OF IRVINE

After years of collaboration between The City of Irvine, FivePoint, and LGB, we celebrated a groundbreaking in 2018 on a \$13-million effort to restore a significant portion of the wildlife corridor. This reach entails restoring 2.5 mile in the central region of the Corridor to allow species such as the gray fox, bobcat, coyote and various native birds to travel between Orange County coastal habitat and the Santa Ana Mountains. It will measure nearly one-quarter mile at its widest point, and is currently being built along the eastern border of the Orange County Great Park in Irvine. The grounds were formerly used for agriculture and as the Marine Corps Air Station El Toro golf course. This significant reach of the corridor is being funded by the Great Park developer, FivePoint, which is also developing 688 acres of the park and neighborhoods adjacent to the wildlife corridor.



REPRESENTATIVES FROM FIVEPOINT, LAGUNA GREENBELT, INC., AND THE CITY OF IRVINE CELEBRATE THE GROUNDBREAKING OF THE CORRIDOR AT THE GREAT PARK IN 2018.

*Open space provide opportunities to reflect, recharge and reconnect. Playing at a park, navigating a nature trail, or meditating within a lush green landscape contributes to our quality of life and the character of a community. It is why we create open spaces for people to access the great outdoors, while also preserving and protecting native habitats and natural resources. When people and nature co-exist in open spaces, it is good for the body, mind and soul.*

*-FivePoint*

<https://www.fivepoint.com/elements/open-space>

## COMMUNITY SUPPORT



### Science Advisors to the Wildlife Corridor Working Group:

Elisabeth Brown, Ph.D., Laguna Greenbelt, Inc.  
Kevin Clark, San Diego Natural History Museum  
Shannon Crossen, ICF International, Inc.  
Tanya Diamond, Pathways for Wildlife  
Kim Ferree, San Diego Natural History Museum  
Sinem Kargin, University of California, Irvine  
Milan Mitrovich, ICF International, Inc.  
Roger Overstreet, Southern California Edison  
Trish Smith, The Nature Conservancy  
Ahiga Snyder, Pathways for Wildlife  
Wayne Spencer, Conservation Biology Institute  
Jim Stritholt, Conservation Biology Institute  
Winston Vickers, University of California, Davis

### Wildlife Corridor Working Group Key Advisors:

Kate Clark  
Kevin Clark  
Mary Fegraus  
John Foley  
Norm Grossman  
Ann Larson  
Lance Vallery  
Terry Watt  
Gabriela Worrel

# HISTORY

## WALKING THE CORRIDOR

Since the 1950s, Dr. Jack Skinner and Nancy Skinner have been early champions of watershed health along the Orange County coast. Dr. Skinner passed away in 2019, leaving a legacy of advocacy for people, water quality, and the Irvine-Laguna Wildlife Corridor - work he pursued alongside his wife.

In the 1980s and 1990s, Dr. Skinner began exploring the San Diego and Serrano creeks, which now are important parts of the Corridor. He worked with Friends of Newport Coast to improve water quality in the Newport Bay. He and Nancy championed the effort for the best possible quality wildlife corridor to help mitigate negative effects of development in the Irvine Spectrum on wildlife.



DR. JACK SKINNER AND NANCY SKINNER

## MILESTONES

### HOW DID WE GET HERE?

- Pre-modern era: An unobstructed landscape connection exists between coast and mountains.
- 1950s: Start of I-5 Freeway.
- 1980s: Planning and development of Irvine Spectrum.
- 1996: NCCP/HCP, a federal designation protecting portions of land on both ends of the Wildlife Corridor, is implemented.
- 2010: Final piece of land secured to create 22,000 acres of preserved coastal wilderness.
- 2013: City of Irvine adopts zoning and plan for Corridor in Great Park.
- 2018: FivePoint breaks ground on construction of central portion of Corridor in Great Park.
- 2019: LGB releases results of 18-month camera study examining animal activity in Corridor.
- 2020: Native plant cultivation began on Great Park lands



1960s - THE I-5 FREEWAY AT EL TORO PICTURED AS A 4-LANE HIGHWAY PRIOR TO EXPANSION TO A 26-LANE FREEWAY. PHOTO COURTESY OF OC ARCHIVES.

## Fragmentation

# DEVELOPMENT OF INTERSTATE-5

In the 1950s, the I-5 freeway was built through Orange County. This introduced a significant barrier to wildlife that had never before existed on this scale. Large development projects impact the landscape by causing habitat fragmentation, thus creating barriers to animal movement. Roads, housing, business complexes, flood control and utility infrastructure are all examples of projects that can cause habitat fragmentation.

Animals need room to roam, to safely raise their young, and to find food, shelter, water and suitable mates. They also need an escape route during disasters and a way to return to the area after danger has passed. Some animals can adapt to a fragmented landscape, but others cannot. In Orange County, bobcats and mule deer are two examples of species suffering the effects of a fragmented habitat.

# 22,000 ACRES

## THE COASTAL WILDERNESS

---

The coastal wilderness is one of the last remaining large, consolidated wilderness areas in coastal southern California and in the state. As the second largest coastal canyons wilderness system in southern California (the largest area being the Santa Monica Mountains preserves), these 22,000 acres are critical for our region and the state. Today, these acres are protected through the regional park and preserve system and the Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) that amount to over 100,000 acres. These parks and preserves are habitat for many important and rare species including the long-tailed weasel, California Gnatcatcher and Orange-Throated Whiptail.



FEDERALLY-LISTED COASTAL CALIFORNIA GNATCATCHER

## OUR OPEN SPACE PROTECTING OUR INVESTMENT

---

The coastal parklands and preserves are comprised of Aliso and Wood Canyons Wilderness Park, Crystal Cove State Park, and Laguna Coast Wilderness Park, along with open space in the cities of Irvine, Laguna Beach, Laguna Woods, and Newport Beach. We now know that our habitat lands (wilderness and natural parks) must be regionally connected to ensure the survival of our wildlife and rare plant species. Our work leverages an estimated [half a billion dollars that has been invested](#) in the wilderness areas connected by this wildlife corridor. It's now time to make sure these lands will continue to thrive via connectivity projects like this one.



*All mankind is tied together; all life is interrelated, and we are all caught in an inescapable network of mutuality, tied in a single garment of identity. Whatever affects one directly, affects all indirectly.*

*-Dr Martin Luther King, Jr.*

---

## WILDLIFE IS DISAPPEARING

The Corridor ensures the coastal ecosystem's web of life stays intact. Wildlife, including top predators in the system, are disappearing from the coastal preserves .

We are doing something about it. Orange County's coastal wilderness open space and wildlife urgently need:

- A committed coalition of public, private, and citizen champions to advocate for this project
- A completed wildlife corridor with
  - Functional and safe road crossings
  - Freedom from human intrusion
  - Effective, long-term stewardship
  - Freedom from exposure to toxins found in rodenticides

# CAMERA STUDY

## METHODS

The Laguna Greenbelt, Inc.'s team of volunteers installed cameras along the corridor. Funded in part by the City of Laguna Beach, they monitored, collected, and categorized thousands of images from the cameras between May 2017 and November 2018. Many of the cameras were located near the I-5 culvert at Bake Parkway to evaluate whether or not the culvert is functioning to convey animals under the freeway as intended. A team of scientists overseen by Kevin Clark, Director of Biological Services at the San Diego Natural History Museum analyzed and evaluated this rich data, and produced a report.



## CAMERA STUDY FINDINGS

The data from the Irvine Spectrum Wildlife Corridor Camera Monitoring Project support two important conclusions:

1. Human intrusion in the corridor is negatively affecting the functionality of the corridor. When humans are present in the corridor, animals do not use it.
2. No large mammal successfully passed through the I-5 culvert during the study period, indicating that this road crossing is not functioning. Instead, it is a barrier to movement.

To read the full report, visit:

<https://wildlifecorridor.org/camerastudy/>.



# CORRIDOR CHALLENGE:

## BARRIERS TO MOVEMENT

Design and engineering solutions are needed along the corridor to make sure wildlife can pass under, over, into, and out of several obstacles: roadways, creek channels, and railroad tracks. The corridor also needs to be properly buffered from impacts of existing and proposed development along its flanks. Studies have shown that wildlife avoid areas for many hours after any human has been present. Wild animals and birds will be less likely to use the corridor if there is excessive noise and light, and any intrusion of people and their pets.



CULVERT AT THE I-5 PREVENTS ANIMAL MOVEMENT UNDER FREEWAY

# CORRIDOR CHALLENGE:

## HUMAN INTRUSION IN CORRIDOR

Results from the [Irvine Spectrum Wildlife Corridor Camera Monitoring Project](#) were released August 28, 2019. The report from our most recent monitoring study in the corridor is the first to quantify the activity and movement of a wide assortment of wildlife species and humans across the entire breadth of the Irvine-Laguna Wildlife Corridor. Human activity was found to be a pervasive issue. This negatively affects the function of the corridor for wildlife movement.



HUMAN PRESENCE IN THIS CULVERT MEANT FOR WILDLIFE CAUSES ANIMALS TO AVOID THIS SPACE

## Additional Research

# EFFECTS OF URBAN DEVELOPMENT

Animals need room to roam, to safely raise their young, find food, shelter, water and suitable mates. For more information on the effect of fragmentation on these essential activities for OC's wildlife, please visit:

[https://www.researchgate.net/publication/236736260\\_Urban\\_Habitat\\_Fragmentation\\_and\\_Genetic\\_Population\\_Structure\\_of\\_Bobcats\\_in\\_Coastal\\_Southern\\_California](https://www.researchgate.net/publication/236736260_Urban_Habitat_Fragmentation_and_Genetic_Population_Structure_of_Bobcats_in_Coastal_Southern_California)

[https://www.usgs.gov/centers/werc/science/evaluation-connectivity-wildlife-human-altered-landscapes-mule-deer-landscape?qt-science\\_center\\_objects=0#qt-science\\_center\\_objects](https://www.usgs.gov/centers/werc/science/evaluation-connectivity-wildlife-human-altered-landscapes-mule-deer-landscape?qt-science_center_objects=0#qt-science_center_objects)

More resources: <https://wildlifecorridor.org/resources/>

# IN THE NEWS



OUR WORK OUR EXPERTS OUR STORIES GET INVOLVED ABOUT US

[NRDC: Wildlife Corridors Crucial for California's Biodiversity](#)

[LA Times: Progress made on wildlife corridor connecting O.C. coast with Cleveland National Forest](#)

[Letter: Wildfire Season – The 1993 Laguna Beach Fire and Unsolved Threats](#)

[Crittter, Human Co-Existence Boosted by Irvine-Laguna Wildlife Corridor Plan](#)

[OC Register: Crucial O.C. wildlife corridor hits a freeway roadblock](#)

[Laguna Greenbelt Taps Advisory Group to Consult on Irvine-Laguna Wildlife Corridor](#)

[StuNews Laguna: Wildlife Corridor Camera Study](#)

[LA Times: Human activity in wildlife corridor hinders animal movement](#)

[LB Indy: Multi-Year Wildlife Camera Study Shows Worrying Trend](#)

[KABC7 Video: Improvements to Wildlife Corridor Could Help Protect OC Wildlife from Extinction](#)

[OC Register: Wildlife corridor at Orange County Great Park in Irvine is unveiled, expecting to fill missing link between mountains, coast.](#)

EXPERT BLOG • DAMON NAGAMI

## Wildlife Corridors Crucial for California's Biodiversity

April 20, 2022 | Damon Nagami

This coming Earth Day, April 22, Californians will celebrate the groundbreaking of the [Wallis Annenberg Wildlife Crossing](#), the world's largest wildlife crossing over the multi-lane 101 Freeway in western Los Angeles County, clocking in at 210 feet long and 1

THE OCR Crucial O.C. wildlife corridor hits a freeway...

### Crucial O.C. wildlife corridor hits a freeway roadblock

Coastal bobcat and fox survival could depend on a better path for getting to the other side of I



### Wildlife corridor at Orange County Great Park in Irvine unveiled, expected to fill missing link between mountains, coast



Elizabeth Brown, Ph.D., president of Laguna Greenbelt, Inc., stands above the under construction Orange County Great Park Wildlife Corridor in Irvine on Tuesday, March 13, 2018. Brown was one of five speakers at the site in an environmental roundtable titled, Connecting the Dots: Environment, Sustainability, California's Future. (Photo by Mark Righmine, Orange County Register/SCHN)

By TOMOYA SHIMURA | [tshimura@ocregister.com](mailto:tshimura@ocregister.com) | Orange County Register  
PUBLISHED: March 13, 2018 at 4:29 pm | UPDATED: November 21, 2018 at 11:52 am

5 COMMENTS



NOW PLAYING  
3 of 27 > 11:46 HD  
Don't Miss - 5/14 Preview

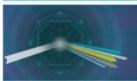
Get the latest news delivered daily!

SUBSCRIBE

Follow Us



SPONSORED CONTENT



Blackbeals and the Five Vectors of Progress

By Deloitte

Details

SAFETY RUNDOWN



A Project of the Laguna Greenbelt, Inc.