

Introduction

n addition to harming human communities, border wall construction has destroyed widespread areas of the nation's most valuable wildlife habitat, including within national wildlife refuges, national monuments and wilderness areas. The U.S.-Mexico border runs through deserts with scant and unpredictable water supplies, where many animals live a precarious existence. An impenetrable barrier that stops them from finding the resources they need can threaten their survival.

If critical parts of the border are not reopened to wildlife, our country will lose substantial ground in our efforts to restore endangered species and conserve natural habitat in the borderlands. Our considerable investments in federal conservation lands will be at risk.



To protect wildlife, habitat and our national investment in conservation, Defenders of Wildlife calls on the Biden administration to:

- Immediately open all gates in the wall (e.g., flood gates at San Pedro Riparian National Conservation Area) so that wildlife can freely pass.
- Turn off lights and reduce noise and human activity in areas important to wildlife.
- Remove wall segments that are most harmful to wildlife or, at minimum, replace them with vehicle barriers designed to allow wildlife to cross.

Criteria for Wall Removal

Defenders identified 18 wall segments as top priorities for removal because they harm or degrade one or more of the following:

- Biodiversity: Areas with unusually high numbers of species and/or high numbers of rare species.
- **Critical habitat:** Federally designated critical habitat for federal endangered and threatened species.
- Endangered species: Federally endangered and threatened species.
- Protected areas: National wildlife refuges, wilderness areas, wilderness study areas, national monuments, national parks or other protected areas with a mission that includes safeguarding wildlife.
- Water resources: Rivers, streams, springs, wetlands or groundwater.
- Wildlife corridors: Access to water, food, mates or other resources necessary for survival.

Top-priority Wall Segments for Removal

The wall segments recommended for removal are listed from west to east below along with a brief description, removal justification criteria, location (GPS coordinates for endpoints) and/or segment name and the construction status with verifying sources for each one.

This document is based on information collected by many organizations working together to identify border wall segments that are top priorities for removal. Myles Traphagen of Wildlands Network and Dan Millis and Scott Nicol of the Sierra Club contributed significantly to the collection and analysis of information presented **here**.

For more information: southwest@defenders.org

California

Otay Mountain Wilderness Area, San Diego County

This segment is endangered Quino checkerspot butterfly and Tecate cypress habitat on Bureau of Land Management (BLM) lands. Walls built through and adjacent to the designated Wilderness Area during the Bush and Trump administrations have caused enormous erosion damage and degraded the habitat of protected species. The wall curves dramatically into the U.S., leaving significant amounts of our land isolated between the wall and Mexico. The recently constructed SD4 double-wall is particularly harmful due to its extra-wide footprint and the fact that any wildlife seeking to cross through here must negotiate two walls instead of just one. Removal justification criteria: Endangered species, protected areas (national monument), wildlife corridors

Wall segments: San Diego 4 and Bush/Obama-era walls east

Status and sources: Under construction (San Diego 4), U.S. Customs and Border Patrol (CBP) map and on-the-ground reports, January, 2021. Older walls to the east complete.

Jacumba Mountains Wilderness Area, Imperial County

This segment is designated critical habitat for Peninsular bighorn sheep. Walls have been recently completed through the Davies Valley and Skull Valley portions of the Jacumba Mountains Wilderness, affecting endangered Peninsular bighorn sheep and flat-tailed horned lizard, the latter protected by a multiagency conservation agreement in Arizona and California. The border wall and associated roads hinders wildlife movement, including ability of federally listed Peninsular bighorn sheep to reach drinking water. Removal justification criteria: Critical habitat, endangered

(drinking water) Wall segments: El Centro Project A:1 (3.2 miles) Status and source: Wall complete. 2021. (CBP map states

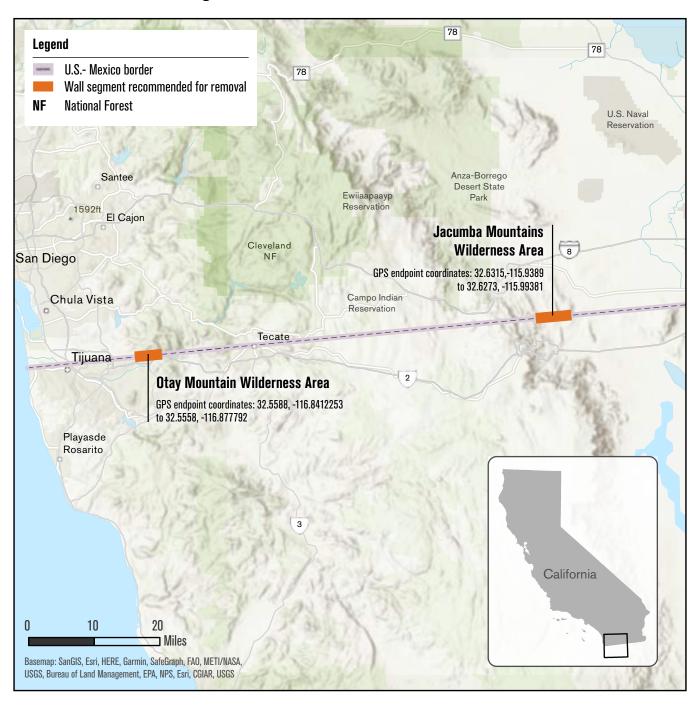
"complete.")

species, protected areas (designated wilderness), water resources





California border wall segments recommended for removal



Arizona

Las Playas-Pinta Sands, Cabeza Prieta National Wildlife Refuge, Yuma and Pima Counties

When rare rain falls in the central part of Cabeza Prieta National Wildlife Refuge, it flows into the ephemeral Las Playas lakes, located next to the international border. When the playas are wet, they become islands of green that host rare plants and animals, including the federally endangered Sonoran pronghorn.

The wall segment also cuts through El Gran Desierto de Altar, the largest active dune system in North America, extending from the U.S. Pinta Sands into Mexico. Many plants and animals are found only in El Gran Desierto, including fringe-toed lizards, flat-tailed horned lizards, giant Spanish needles and blue sand lilies. Vast fields of wildflowers bloom on the dunes after winter rains, in contrast with the drier, surrounding desert area. Endangered Sonoran pronghorn thrive on the abundant forage.

Removal justification criteria: Biodiversity, endangered species, protected areas (national wildlife refuge), water resources (wetlands)

Wall segments: Yuma Project 3:1 (6.3 miles) and Yuma 3:4 (5.0 miles)

Status and sources: Under construction, **CBP map** and on-the-ground reports, January, 2021.

Sonoran Pronghorn Corridor, Cabeza Prieta National Wildlife Refuge, Yuma and Pima Counties

This segment cuts across an important seasonal migratory pathway for endangered Sonoran pronghorn. Fewer than 200 of these ungulates remain in the U.S., and their ability to survive depends on accessing large, uninterrupted expanses of land where they can find scarce water and forage in one of the hottest, driest places in North America. They range across nearly the entirety of Cabeza Prieta National Wildlife Refuge, Organ Pipe Cactus National Monument and across the Gran Desierto de Altar and Pinacare Reserves in Mexico. Their survival depends on utilizing their entire home range in both countries.

Removal justification criteria: Endangered species, protected areas (national monument, national wildlife refuge), wildlife corridors

Wall segment: Tucson Project 1:1 (4.3 miles) **Status and sources:** Wall complete but with ongoing activity, on-the-ground reports, January, 2021. (CBP map states "complete.")

Quitobaquito Hills Spring Complex, Organ Pipe Cactus National Monument, Pima County

Quitobaquito springs and pond in Organ Pipe Cactus National Monument are the only sites in the U.S. where the federally endangered Quitobaquito pupfish and endangered Sonoyta mud turtle occur. The springs are critical habitat for the Sonoyta mud turtle. These oases are within the historically occupied range and potential recovery habitat of the federally endangered Sonoran pronghorn. Native American Tribes continue to hold ceremonies on Quitobaquito and use its plants for ceremonial and medicinal purposes. The amount of water in the springs was greatly reduced in 2020 by withdrawals from wells drilled for border wall construction. Removal justification criteria: Critical habitat, endangered species, water resources (wetlands)

Wall segments: Tucson Project 1:1 (7 miles) **Status and source:** Wall complete but with ongoing activity, on-the-ground reports, January, 2021. (CBP map states "complete.")

Wildlife corridors in Baboquivari Mountains and Buenos Aires National Wildlife Refuge, Pima County

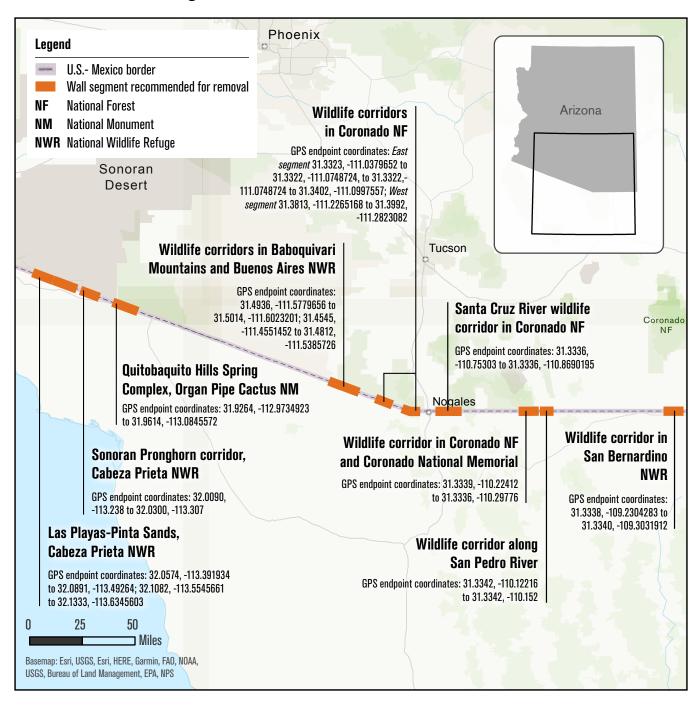
These two segments include the westernmost unit of critical habitat for jaguar (the Southern Baboquivari subunit) and adjoin Buenos Aires National Wildlife Refuge. The refuge was created in 1985 to protect and conserve the masked bobwhite quail, an endangered subspecies of the northern bobwhite quail. The refuge protects 115,000 acres of Sonoran Desert grassland and its associated native flora and fauna.

Removal justification criteria: Critical habitat, endangered species, protected areas (national wildlife refuge), wildlife corridors

Wall segments: Tucson Projects C and C:1 (1.5 miles), C3 and C4 (5.3 miles)

Status and source: Under construction, on-the-ground reports, January, 2021.

Arizona border wall segments recommended for removal



Wildlife corridors in Coronado National Forest, Santa Cruz County

The Tumacacori Ecosystem Management Area of Coronado National Forest (which encompasses the Pajarito Wilderness) is home to federally listed species, including the Chiricahua leopard frog, northern Mexican garter snake and Mexican long-tongued bat. There are over a dozen spring ecosystems with high conservation value located close to the U.S.-Mexico border, including Alamo Spring, which provides habitat and drinking water to wide-ranging species in an otherwise arid environment. More information about springs in the area is available **here**.

Despite being the smallest designated wilderness in the Coronado National Forest, the Pajarito Wilderness contains more than 660 species of plants, 17 found nowhere else on Earth. The area contains Important Bird Areas (IBAs), including Sycamore Canyon and California Gulch, both with streams that provide rare riparian habitat.

The Tumacacori Mountains (including the Tumacacori Inventoried Roadless Area) and Pajarita Mountains (including the Pajarita Wilderness) are contiguous with a larger wildland complex south of the border including the Sierra Cibuta, and a mega-complex of Madrean oak woodland and other high-elevation wildlife habitat extending south into Mexico. The Tumacacori Ecosystem Management Area (EMA) contains some of the greatest concentrations of species diversity, especially subtropical species, on the Coronado National Forest. More information about the Tumacacori Ecosystem Management Area is available **here**.

Removal justification criteria: Biodiversity, endangered species, protected areas (wilderness, Important Bird Area), water resources (springs), wildlife corridor

Wall segments: Tucson Projects B (3.8 miles), B:1 (3.5 miles). **Status and source:** Under construction, on-the-ground reports, January, 2021.

Santa Cruz River wildlife corridor in Coronado National Forest, Santa Cruz County

This segment includes the place where the Santa Cruz River enters the United States from Mexico. Another major drainage, Brickwood Creek, fed by the spring of the same name, provides perennial flow to the region, as compared to the often dry and ephemeral flows of the Santa Cruz River.

As of January 20, 2021, wall construction was underway along the western edge of the Patagonia mountains in jaguar critical habitat. Moreover, this area contains border walls built in 2008 that extend from the Santa Cruz River to Nogales, 5 miles to the west. We recommend that the entire 6.9-mile stretch of wall in this critically important wildlife watering corridor, part of which extends 1.5 miles into the Patagonia Unit of jaguar critical habitat, be removed and/or converted to vehicle barrier.

Removal justification criteria: Critical habitat, endangered species, water resources (springs, riparian habitat), wildlife corridors

Wall segments: Tucson Projects B, B:5 (6.9 miles). Legacy barriers.

Status and source: Under construction, on-the-ground reports, January, 2021.

Wildlife corridor in Coronado National Forest and Coronado National Memorial, Cochise County

This segment includes the eastern unit of the Patagonia jaguar critical habitat and is the corridor where jaguar and ocelot have been recorded since 2012 in Arizona, presumably crossing into the state from the breeding population 100 miles to the south in Sonora. A survey by Sky Island Alliance documented 100 species of wildlife in this area (more info here). Coronado National Memorial and the Huachuca Mountains directly connect to the Rancho Los Fresnos Preserve in Sonora, Mexico, which harbors beavers, blacktailed prairie dogs and the threatened Chiricahua leopard frog. A population of pronghorns persist within the Huachuca Ecosystem Management Area of the Coronado National Forest and the San Rafael Ranch Natural Area.

The Huachuca and Patagonia Mountains provide one of the few pine-oak woodland wildlife corridors in the Sky Islands spanning the U.S.-Mexico border and linking to protected natural areas in Sonora, Mexico. Twenty-six populations of avian "species of conservation concern" can be found here, including the largest number of breeding pairs of elegant trogon and likely the largest population of whiskered screech owl in the U.S. Additional information is here.

The border wall and associated activities have degraded

habitat and disturbed normal wildlife activity in this ecologically important area. Moreover, groundwater pumping for border wall construction threatens **three ecologically important springs** close to the border. At one, Yaqui Spring, previously perennial pools dried up in 2020 following initiation of pumping nearby.

Removal justification criteria: Biodiversity, critical habitat, endangered species, protected areas (national memorial), water resources (wetlands and riparian habitat), wildlife corridors

Wall segments: Tucson Project B:6 (4.4 miles) **Status and source:** Under construction, on-the-ground reports, January, 2021. (CBP map erroneously states 3:1 is "complete.")

San Pedro River, Cochise County

The San Pedro River, commonly called the last free-flowing river in Arizona, is a major wildlife corridor likely used by jaguar coming into the U.S. from Mexico. The river is a Globally Important Bird Area and is protected within the congressionally designated San Pedro Riparian National Conservation Area.

The San Pedro Watershed has 450 species of birds, one of the most diverse inland bird populations in the United States. It is also home to 90 species of mammals—a distinction unmatched anywhere north of the tropics—and 80 species of reptiles and amphibians. Endangered species include jaguars, ocelots, jaguarundis, Mexican gray wolves, Mexican spotted owls, long-nosed bats, southwestern willow flycatchers, desert pupfish, Gila topminnows, northern Mexican garter snakes and Huachuca water umbel.

Recent construction of walls and gates across the river has caused environmental damage, blocks jaguars and other animals from moving between Mexico and the U.S. and may disrupt water flows and cause flooding.

Removal justification criteria: Biodiversity, endangered species, protected areas (riparian national conservation area), water resources (riparian habitat), wildlife corridor Wall segment: Tucson Project 3:2 (1.8 miles)

Status and source: Under construction, on-the-ground reports, January, 2021. (CBP map says "complete.")

San Bernardino National Wildlife Refuge, Cochise County

This small 2,369-acre refuge abuts the border in southeast Arizona's Cochise County. The refuge was established in 1982 to protect eight species of federally listed native fishes of the Yaqui Watershed and the Ciénega San Bernardino, the large marsh that serves as a migratory wildlife corridor between the mountain ranges of Mexico and the Rocky Mountains of Arizona and New Mexico.

The refuge was severely affected in 2019 and 2020 by groundwater pumping for border wall construction that extracted an estimated 770,000 gallons per day from the same artesian aquifer that feeds the wells and springs at the refuge. In December 2019, Refuge Manager William Radke said that the falling water levels caused by border wall construction posed "the current greatest threat to endangered species in the Southwest region."

Removal justification criteria: Biodiversity, endangered species, protected areas (national wildlife refuge), water resources (riparian habitat), wildlife corridors

Wall segment: Tucson Project 3:3 (4.3 miles)

Status and source: Complete, CBP map, on-the-ground reports, January, 2021.



New Mexico

Wildlife corridor in Peloncillo Mountains on Arizona and New Mexico border, Cochise County, AZ and Hidalgo County, NM

This segment of border wall cuts an important cross-border wildlife corridor formed by the Peloncillos Mountain Range, which runs north and south where the Sonoran and Chihuahuan deserts abut. The area consists of specially designated BLM lands, including Guadalupe Canyon Wilderness Study Area and Guadalupe Canyon Outstanding Natural Area and Area of Critical Environmental Concern.

The corridor is used by migrating birds and butterflies, including the monarch, and by jaguars—a large male was photographed here in 1996. The corridor's canyons hold the highest bird diversity in New Mexico. Guadalupe Canyon, an Audubon Society Important Bird Area, was subjected to dynamiting for wall construction in 2020. Guadalupe Canyon has springs critical for the endangered Chiricuahua leopard frog and other amphibians.

Removal justification criteria: Biodiversity, endangered species, protected areas (Important Bird Area, wilderness study area), water resources (riparian habitat), wildlife corridors

Wall segment: Tucson Project A:5 (4.5 miles)
Status and source: Under construction, on-the-ground reports, January, 2021 (Missing from CBP map.)

Wildlife corridor in Hidalgo County, New Mexico

This wildlife corridor in the New Mexico bootheel is important for jaguar movement and is the only place in the U.S. with white-sided jackrabbits, a New Mexico state threatened species. It is a migratory route for the Janos-Hidalgo international bison herd, which has moved between Chihuahua, Mexico, and New Mexico for decades, a powerful symbol of binational conservation. It is also an area frequented by endangered Mexican gray wolves, which in recent years approached the border in areas now walled off.

Removal justification criteria: Endangered species, wildlife corridors

Wall segments: El Paso Project 2, El Paso 2, El Paso 8 (5.8 miles)

Status and source: Under construction, **CBP map**, January, 2021

Chihuahuan Desert wildlife corridor in Luna County

This 2-mile segment of 30-foot-tall pedestrian fencing cuts through the rugged Carrizalillo Hills, blocking the movement of wildlife between the Sierra Alto mountains in Mexico and the Cedar Mountains Wilderness Study Area and extensive surrounding BLM public lands in New Mexico. Species affected include mountain lions, bobcats, coyotes, javelinas, gray foxes, badgers, mule deer and perhaps endangered Mexican gray wolves.

Removal justification criteria: Endangered species, protected areas (wilderness study area) wildlife corridors

Wall segment: El Paso Project B (2.4 miles)

Status and source: Under construction, CBP map, January, 2021

Chihuahuan Desert wildlife corridor in Luna and Doña Ana Counties

This 27-mile segment of 30-foot-high pedestrian fencing blocks movement of wildlife between Mexico and the Florida Mountains and Organ Mountains Desert Peaks National Monument in southern New Mexico. Species affected include mountain lions, bobcats, coyotes, javelinas, gray foxes, badgers, mule deer and perhaps endangered Mexican gray wolves. The highest priority for removal are segments blocking known migration corridors and habitat for endangered Mexican gray wolf.

Removal justification criteria: Endangered species, protected areas (national monument), wildlife corridor

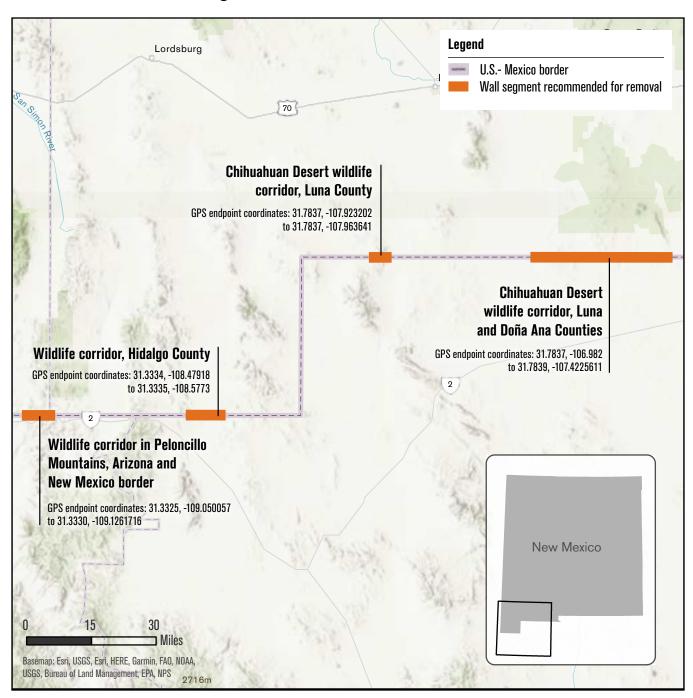
Wall segments: El Paso Projects 1, 2, B and C (25.9 miles)

Status and source: Complete, CBP map, January, 2021



MEXICAN GRAY WOLF BY USFWS/JIM CLARK (CAPTIVE)

New Mexico border wall segments recommended for removal



Texas

Lower Rio Grande Valley National Wildlife Refuge, El Morillo tract, Hidalgo County

Wall constructed here may cause flooding when water and debris back up behind wall structures. The wall could redirect floodwaters from the Rio Grande into Mexico, prevent wildlife from escaping floods, prevent wildlife from reaching water (the area has frequent droughts), and destroy protected habitat.

Removal justification criteria: Biodiversity, endangered species, protected areas (national wildlife refuge), water resources (flood control, riparian habitat, wildlife corridors **Wall segment:** RGV-03

Status and source: Under construction, on-the-ground reports, January, 2021. (The **CBP map** erroneously lists it as "complete.")

Lower Rio Grande Valley National Wildlife Refuge, Starr County

Border wall here consists of two short segments in tracts of the Lower Rio Grande Valley National Wildlife Refuge. The longer of the segments runs through the Arroyo Ramirez tract of the refuge, critical habitat for the Zapata bladderpod, a federally endangered plant. The shorter segment is entirely within the Las Ruinas tract of the refuge.

The wall here crosses several arroyos and may cause flooding when water and debris back up behind wall structures. The wall could redirect floodwaters from the Rio Grande into Mexico, prevent wildlife from escaping floods, block wildlife movements, prevent wildlife from reaching water (the area has frequent droughts), and destroy protected habitat.

Removal justification criteria: Biodiversity, critical habitat, endangered species, protected areas (national wildlife refuge), water resources (flood control, riparian habitat), wildlife corridors

Wall segment: RGV-05

Status and source: Complete, CBP map

Lower Rio Grande Valley National Wildlife Refuge, Hidalgo County

A portion of this border wall segment bisects the Marinoff tract of the Lower Rio Grande Valley National Wildlife Refuge. The refuge was established to create a wildlife corridor for federally endangered ocelots and jaguarundis. Border walls here would fragment habitat, cutting off animals from necessary food, water and possibly mates south of the wall. The Marinoff tract of the Lower Rio Grande Valley refuge is immediately adjacent to Santa Ana National Wildlife Refuge, historical ocelot habitat. Congress recognized the Santa Ana refuge as so environmentally important that border wall construction has been forbidden there. In an ecological sense the Marinoff tract functions as a part of Santa Ana refuge and deserves equal protection from the border wall. This area is extremely rich in bird and butterfly biodiversity. Removal justification criteria: Biodiversity, critical habitat, endangered species, protected areas (national wildlife refuge), water resources (flood control, riparian habitat), wildlife corridors

Wall segment: RGV-010

Status and source: Under construction, **CBP map** and on-the-ground observation (January, 2021)



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Texas border wall segments recommended for removal

