



February 3, 2022

U.S. Customs and Border Protection  
U.S. Border Patrol Headquarters  
1300 Pennsylvania Ave. 6.5E Mail Stop 1039  
Washington D.C. 20229-1100

To Whom It May Concern:

Sky Island Alliance appreciates the opportunity to provide feedback on the **Border Barrier Remediation Plan for Pima County, Santa Cruz County, and Cochise County (January 2022)**. The 119 miles of border within the scope of the plan runs through a world-renowned biodiversity hotspot and is home to many threatened and endangered species including jaguar and native fish such as the desert sucker and longfin dace. Border wall and associated infrastructure construction created massive environmental damage which requires urgent and extensive mitigation and restoration. The remediation plan as proposed focuses on stabilizing border infrastructure, is not significantly improving environmental conditions, and will lead to more environmental damage and degradation if more wall is built to close gaps.

While some environmental damage done through wall construction is irreparable such as mountainside removal, other damage can be repaired and further degradation can be prevented with the reestablishment of vital wildlife crossings, slope stabilization, waterway repairs, revegetation of habitat, and protection of the dark night sky. It's not too late to follow the National Environmental Protection Act, Endangered Species Act, and other environmental laws and statutes that were waived at the border – please engage in a thorough environmental review and mitigation process to prevent further cumulative harm to the borderlands.

**No new wall should be built** – Do not close gaps in the wall. The priority needs to be protecting the remaining wildlife corridors from further fragmentation and beginning to remove physical barriers to restore natural wildlife migration, habitat, and flow of water. For wildlife species that must range across the border to find the resources they need to survive, even a small gap in the wall can save animals' lives and prolong the survival of species. The priority gaps to leave open and passable to large wildlife species are:

- The Santa Cruz River (east of Nogales, AZ):
  - 31.33404, -110.85073
- Jaguar Designated Critical Habitat—Baboquivari (west of Sasabe, AZ):
  - 31.497, -111.588
- Buenos Aires National Wildlife Refuge (east of Sasabe, AZ):

- 31.4718, -111.50956
- 31.46977, -111.50311
- Jaguar Designated Critical Habitat—Atascosa (south of Ruby, AZ):
  - 31.39806, -111.2786
  - 31.39383, -111.26546
  - 31.38907, -111.25065
- Coronado National Memorial in the Huachuca Mountains (west of Naco, AZ):
  - 31.33388, -110.27232
- Other gaps in the Pajarito Mountains between Sasabe, AZ and Nogales, AZ

**Keep gates across rivers and water courses open year-round** on the San Pedro River (Figure 1), Silver Creek, Black Draw, Hay Hollow, and other wash crossings on public lands to reopen vital wildlife corridors during dry seasons when wildlife must be able to move in search of water on the landscape.



**Figure 1.** Gates across the San Pedro River in the San Pedro River National Conservation Area should remain open continuously to allow wildlife movement and migration regardless of whether water is flowing as this is a primary migratory corridor within the region. Photos taken in August 2021 by Robert Luce showing low river flow (left) and no river flow (right).

**Create and improve wildlife crossings** in the wall to protect the short-term survival and long-term persistence of wildlife populations on both sides of the border. These openings should be significantly larger than the 8.5 x 11” small wildlife opening proposed to allow the seasonal migration and daily movement of multiple species across the border. We strongly encourage CBP to follow the recommended underpass dimensions in the [U.S. Department of Transportation and Federal Highways Administration’s Wildlife Crossing Structure Handbook](#) and:

- Create wall openings with a minimum dimension of 23 feet wide and 13 feet high and preferred dimension of >32 feet wide and >13 feet high to support large mammal migration including deer, pronghorn, bears, and wolves. These large openings should occur every mile along the wall and be monitored for effectiveness using camera traps.

- For small animals such as tortoises and turtles, install small wildlife openings at least every 0.25 mile along the wall that are at least 2 feet wide (the proposed 8.5 x 11” opening proposed is too small to allow passage by the region’s desert tortoises) and monitor for effectiveness.

The [Criteria and Priority Areas for Conservation and Restoration \(February 23, 2021\)](#) jointly authored by 70 organizations recommends the following priority locations for large wildlife crossings:

- Cabeza Prieta National Wildlife Refuge in the Sonoran Pronghorn Corridor where the survival of endangered pronghorn depends on access to habitat on both sides of the border:
  - Pinta Sands: 32.19892, -113.8453
- Organ Pipe Cactus National Monument where Quitobaquito Springs provides an oases for numerous wildlife species and at the border crossing of the Salsola Bosque:
  - 31.94261, -113.02118
  - 31.850102, -112.718915
- The Buenos Aires National Wildlife Refuge which is part of the westernmost unit of the Designated Critical Habitat for jaguar.
- The San Pedro River National Conservation Area which is part of Designated Critical Habitat for jaguar.
- San Bernardino National Wildlife Refuge which provides habitat for four Threatened and Endangered species.
- Wildlife corridor in the Peloncillo Mountains on the Arizona and New Mexico border for jaguar and includes the specially designated Bureau of Land Management lands including Guadalupe Canyon Wilderness Study Area, Guadalupe Canyon Outstanding Natural Area, and Area of Critical Environmental Concern.

Wildlife crossings should be monitored by biologists after installation to determine effectiveness and further crossing adaptations should be planned if the wall continues to block and repel migrating wildlife species.

**Decommission patrol road extensions.** New border roads into previously inaccessible high-elevation areas pose security and severe erosion risks to Sky Island habitats. The patrol road extensions in Coronado National Forest, Coronado National Monument, and Guadalupe Canyon should be decommissioned and the habitat restored under the direction of public land managers. By closing and decommissioning unnecessary patrol road segments, this will immediately reduce the disturbance of vehicles within wildlife corridors. In addition, the road prism should be reduced to a minimum width by revegetating with native plants in consultation with federal public land managers. Priority road segments for decommissioning are:

- Decommission patrol road extension on Coronado National Forest west of the Patagonia Mountains. Terminate border road at end of wall/FS Road 4903:
  - 31.33369, -110.79231
- Terminate the border road on Coronado National Forest at Yaqui Spring FS Road west of Huachuca Mountain switchbacks and decommission patrol road extension (Figure 2):
  - 31.33381, -110.2922
- Terminate the border road on Coronado National Memorial east of the switchbacks and decommission the patrol road extension (Figure 2):

- 31.33388, -110.27232
- Terminate the patrol road that enters Guadalupe Canyon in the Peloncillo Mountains and continues to the New Mexico state line. This is the Peloncillo Unit of critical habitat for the endangered jaguar and vehicle traffic should be kept to a minimum:
  - 31.33377, -109.07102



**Figure 2.** The recently built border access roads segments cut switchbacks up the steep terrain of the eastern Huachuca Mountains on Coronado National Monument past the end of the border wall (left) and on the western side of the Huachuca Mountains on Coronado National Forest (right). Both segments of road are highly unstable, already eroding, and should be restored to prevent further environmental damage. Photos taken in summer 2021 by Greg Bedinger/LightHawk.

**Improve water crossings** (applies to culverts and low water crossings) by ensuring capacity to tolerate 100-year storm events. Recontouring the drainage with minimal obstructions to permit natural water flow is preferred, but where that is not possible flood gates and culverts at water crossings must be large and open to prevent blockages behind the border infrastructure and reduce the risk of flooding that leads to erosion, further habitat loss, and risk to human safety.

For example, on the border in the western Patagonia Mountains, a new access road was hastily built across a drainage with only 8, 16" culverts at the base of roadbed in January 2021 (Figure 3). The culverts were blocked and buried by sediment during the first monsoon season since construction when the road functionally became a dam (Figure 3). In this case, the access road in this segment should be decommissioned and the roadbed sediment removed to recontour the drainage. There is no reason to reinforce this unnecessary road fragment by protecting the 8-pipe culvert system that is currently buried and ineffective. This road segment is in the Patagonia Unit of jaguar Designated Critical Habitat and warrants full habitat restoration.



**Figure 3.** Eight 16”-diameter culverts line the base of a deep border access road that was built across a drainage with the patrol road extension in the western Patagonia Mountains on Coronado National Forest (left, Spring 2021 prior to monsoon rains). The same patrol road extension became a dam after the insufficient 8-pipe culvert system at the base was blocked and buried with sediment during heavy monsoon rains in August 2021 (right). This drainage in Coronado National Forest should be restored by removing the border access road above to allow natural drainage south across the border again.

**Disturbed habitat needs immediate erosion control and revegetation** (applies to rockfall, erosion, staging areas, and disturbed areas) to prevent further habitat loss, soil degradation, and prevent the spread of invasive species. In consultation with local public land managers, disturbed land should be first evaluated for potential erosion risk and stabilized, then revegetated with native plant installation and seeding. These areas are highly prone to invasion by noxious weeds and an invasive species monitoring and response program should be carried out as part of the remediation.

**Turn off all lighting infrastructure,** including arrays integrated into the wall and free-standing lighting installations near the wall because it interferes with the natural behavior of wildlife including bird migration and pollutes dark skies with artificial light. Light pollution is also disruptive to human health in border communities and does not increase safety.

In addition, we strongly recommend the following best practices for implementing the Remediation Plan:

- Follow all environmental laws including the National Environmental Protection Act.
- Solicit, accept, and implement remediation recommendations made by public agencies under the Department of Interior including U.S. Fish and Wildlife Service, National Park Service, and the Department of Agriculture including U.S. Forest Service, and Bureau of Land Management.
- Monitor for the effectiveness of any wildlife crossings installed to determine if target species do use structures.
- Prevent the spread of invasive species in all construction areas by cleaning equipment and establishing an invasive species monitoring and eradication program for target species identified by the [Arizona Department of Agriculture Noxious Weed list](#) and [USDA Invasive Plants and Weeks of the National Forests and Grasslands in the Southwest Region](#).
- Avoid risk to wildlife during seasonal migration and reproduction by avoiding construction during spring and summer.

The public Remediation Plan storymap was useful in showing many of the locations where remediation actions are proposed. However, not indicating where new wall be built to close gaps, gates will be repaired/installed, or where small wildlife openings will be created showed a lack of transparency with the public and made it difficult to provide specific feedback on the impacts to wildlife populations needing to cross over the border. In the future, we request that all actions be shown in a spatial context and location identification numbers are shorter and easier to find so that comments in letter form can reference specific locations.

Sincerely,



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