

*A pedestrian fence constructed
on Buenos Aires NWR.*



On the Border

*Protecting natural
resources on the front lines
of immigration.*

By Jose Viramontes and Nancy Brown

Photos courtesy U.S. Fish and Wildlife Service

During the past decade the debate over immigration reform has been at the forefront of American dialogue. At all levels of government, elected officials have been grappling with policies for dealing with thousands of foreign citizens who enter the United States illegally each year. According to a 2005 Government Accountability Office report, an estimated 5 million to 15 million people are currently living in the United States illegally.

Nowhere have the impacts of this difficult issue been felt more than on our southern border. Along the international border with Mexico the states of California, Arizona, New Mexico, and Texas have seen thousands of individuals attempting to cross into the United States illegally and thousands of federal agents attempting to stop them.

From the Pacific Ocean to the Gulf of Mexico, nearly half of the southern border—a distance of 820 miles—is federally or tribally owned. Land encompassing the remaining 1,080 miles is either privately or state owned.

Among these federal lands, the Fish and Wildlife Service manages six national wildlife refuges and cares for more than 30 species listed under the Endangered Species Act. In total, the Service is responsible for managing natural resources along 158 miles of border in Arizona, Texas and California. These 1.1 million acres of federal wildlife refuges along the border provide important habitat for endangered species, migratory birds, and other wildlife. In fact, many rare and endangered wildlife can only be found in these parts of the United States. The Sonoran pronghorn, masked bobwhite quail, ocelot and many other species have their last hopes vested in these lands. Overall, 32 species listed as threatened or endangered under the ESA reside within 25 miles of the international border.

Substantial illegal off road traffic and resulting border enforcement actions have left their mark on sensitive natural resources that the Service has worked for decades to restore and protect.

In 1994, the Immigration and Naturalization Service, now Customs and Border Protection (CBP), designed and implemented a broad national strategy to regain control of our nation's borders. The strategy called for “prevention

through deterrence” which sought to close the routes frequently used by immigrants and drug smugglers and to shift immigration traffic to areas that were much more difficult to cross. Further, the policy attempted to raise the risk of apprehension to a level so high as to deter immigrants from attempting to enter the United States illegally.

In many respects this approach worked. Apprehensions along the traditional immigration routes, primarily more populated areas, initially spiked and then over time decreased. According to CBP, since 1996, the highest number of apprehensions in Southwest sectors was in 2000 (1,643,679) and the lowest was in 2003 (905,065). However, an unintended consequence was a dramatic increase in the number of immigrants crossing far more treacherous and environmentally sensitive lands—such as national wildlife refuges. These areas became prime habitat for smugglers, undocumented immigrants, and eventually a substantial presence of federal border enforcement agents. Each leaves more than a footprint when traversing these sensitive lands.

Trails, Trash and Trucks

The shifting of thousands of illegal cross border migrants from populated centers to wild lands has had a tremendous impact to federal trust resources. Lands previously void of human impact have now been transformed into pedestrian highways. New trails and roads, frequently referred to as ghost roads, are being carved from south to north across the desert on a regular basis. These paths are dotted with human waste, abandoned vehicles, and areas of accumulated trash in lay-up sites where immigrants wait for the cover of darkness or for human smugglers—known as “coyotes”—who will pick them up and transport them along the next leg of their journey. >>



An endangered masked bobwhite quail on Buenos Aires NWR.

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In June of 2006, Mitch Ellis, then manager of Buenos Aires National Wildlife Refuge in southern Arizona was asked to testify before the House Appropriations Committee on the impacts of illegal immigration on federal lands. For the second time in as many years, Congress hosted a hearing focusing on these impacts.

Research has concluded that each person who attempts to cross the border leaves 5 to 8 pounds of trash. During the years, the trash has accumulated and now tons of trash litter the desert. In his testimony, Ellis reported to the committee that by conservative estimates more than 500 tons of trash are left behind by illegal border crossers.



An immigrant “lay-up” site on Buenos Aires NWR. Here immigrants wait for the cover of darkness or for human smugglers—known as “coyotes”—who will pick them up and transport them along the next leg of their journey.

Also, more than 100 abandoned vehicles are towed from the refuge each year—far less than is actually left behind. Ellis further reported that more than 1,300 miles of illegal trails had been created on the refuge. In 2005 alone more than 235,000 illegal immigrants were estimated to have crossed the refuge.

It is not just the environmental impacts giving federal land managers concern. Violent crime and illegal drug activity have also risen. Thousands of pounds of marijuana have been seized on federal lands along the border (47,000 pounds on Buenos Aires Refuge in 2005 alone). In October 2006, Buenos Aires was forced to close 3,500-acres to public access due to an increase in violence along the border. Anyone—including refuge biologists—are now required to have a law enforcement officer accompany them when conducting field work in the area.

The human toll is a matter of even greater concern. Dozens of immigrants have died while attempting to cross the treacherous desert, most succumbing to exhaustion and dehydration, while others have been killed during altercations with human smugglers. Two federal agents have been killed in the line of duty while patrolling border lands. In 2002, Kris Eggle, a National Park Service Ranger at Organ Pipe Cactus National Monument in Arizona was killed while pursuing members of a drug cartel hit squad who fled into the United States after committing a string of murders in Mexico. And in January of this year, Luis Aguilar, a senior U.S. Border Patrol agent, was killed near the Imperial Sand Dunes Recreation Area in California when he was intentionally struck by the driver of a vehicle he was attempting to stop.

The annual impact from damage to sensitive public lands and species from the cumulative effects of illegal immigration, drug smuggling and border enforcement actions has become a growing concern for Service officials and more of a draw on already limited resources.

A ‘Catch-22 Situation’

Of course, there has not just been an increase in immigrant traffic across federal lands. Border enforcement agents with CBP have also shifted to the new desert immigration corridors. Patrol activities on ATVs, horseback, and in transport vehicles as well as apprehension of immigrants now frequently occur on environmentally sensitive federal lands. Through close coordination with federal agents, Service staff has been able to recommend that agents utilize established roads and avoid establishing new trails and roads whenever possible.

When the need to increase coordination between the Service and CBP first arose there was a clear disconnect between the two agencies. A report issued by the Government Accountability Office in June 2004 commented that there appeared a lack of understanding of agencies’ missions among federal land management and border enforcement agencies. Further, the report outlined recommendations for increased information sharing and coordination to ensure agencies focus on areas of greatest concern.

Coordination and dual agency efforts over the years expanded, and some efforts proved to be successful in allowing both agencies to meet their individual—sometimes contradictory—missions. A few examples of these successful efforts include:

- coordinating the installation of miles of vehicle barriers that allow passage of wildlife from one side of the border to the other;
- completion of a non-Jeopardy Biological Opinion for Customs and Border Protection’s proposed pedestrian barrier activities in Arizona;
- creating the Information Planning and Consultation System in an attempt to streamline and enhance the endangered species consultation process;
- permitting the use of refuge land by the Service for CBP staging areas, helipads, and horse corrals that are closer to the border in order to decrease the distance agents must travel to apprehend illegal immigrants;



Vehicle barrier on Buenos Aires NWR.

- conducting environmental awareness training for CBP agents;

- creating a National Borderland Coordinator position in the Department of the Interior to serve as a principle point of contact for the Department of Homeland Security.

In addition, in an attempt to address the concern for human life, the Service issued a permit to the nonprofit group Humane Borders to place and maintain water stations along known immigration routes on Buenos Aires Refuge, marked wildlife watering tanks on Cabeza Prieta Refuge with tall blue flags, and worked with CBP to install solar powered emergency rescue beacons that provide direct contact with CBP in the event that someone's life is in imminent danger.

Unfortunately, not all proposed activities allowed one agency or the other to proceed in a matter that was consistent with its purpose.

"It's a Catch-22 situation," noted Roger DiRosa the retired manager of Cabeza Prieta Refuge in southern Arizona. "Though allowing increasingly damaging activities to occur may ultimately save some wilderness resources, it is equally possible that they may not. It is a highly unique and problematic situation, requiring difficult and unique solutions."

Nowhere was this conflict as prevalent as with the construction of a 700-mile 'double-layer, impermeable' pedestrian barrier prescribed by Congress in late 2006. >>



One of three water stations on Buenos Aires NWR permitted and maintained by Humane Borders.

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The Fence

On October 26, 2006, the Secure Fence Act was signed into law. The Act directed the Department of Homeland Security to construct “at least 2-layers of reinforced fencing and additional physical barriers” over a distance of 700 miles along the international border with Mexico. The law mandated that construction be completed by December 2008. Border segments identified for fence construction fall along the entire southern border and vary in length. A number of those segments mandated fall on national wildlife refuge lands or lands that provide habitat for sensitive species.

In general, fences are not good for wildlife. And then there is the tremendous impact to natural resources caused by the constant flow of immigrant traffic and necessary border enforcement actions. But the pedestrian fence actually may provide more benefits to trust resources than negative impacts.

In Arizona, a substantial portion of fence construction fell within what is known as the Roosevelt Easement, a Presidential Proclamation from 1907 that reserves a 60-foot strip along the international boundary with Mexico. The easement was established in order for the United States to maintain the area “free from obstruction as a protection against the smuggling of goods between the United States and Mexico.” However, the proclamation only applied to lands in public ownership at the time. This meant that for most fence construction in Arizona, CBP was not required to consult with the Service. For the small area of land managed by the Service that did not fall within the easement the Service and CBP agreed to execute a land exchange.

In other areas the Service has been able to work with CBP in the design of fence segments to incorporate wildlife passage elements, and for other segments CBP has committed to mitigation measures for the fences’ impacts on listed species.

“During the past several years we have been able to work with CBP towards mutually beneficial solutions. The Secure Fence Act had the potential to threaten that success, but it hasn’t,” said Southwest



Sonoran pronghorn

Regional Director Benjamin N. Tuggle. “There are still concerns, such as those in Texas and with the pronghorn population at Cabeza Prieta, but we will continue to try and work those out in a way that is least detrimental to the resource.”

Some of the more substantial remaining concerns for the Service are potential impacts to the endangered Sonoran pronghorn in Arizona and the ocelot in South Texas. The Sonoran pronghorn population at Cabeza Prieta Refuge comprises only 70 animals and is the only population remaining in the United States. In a letter to CBP, the Service expressed concerns that the proposed project associated with CBP’s Secure Border Initiative in Arizona “may significantly impair the likelihood for both the recovery and survival of the Sonoran pronghorn population at Cabeza Prieta National Wildlife Refuge.”

The Service and DHS have been working to address concerns with impacts of construction to the endangered ocelot in southern Texas. However, those efforts may have recently hit a wall.

Everything is Bigger in Texas

In southern Texas, 70 miles of proposed border fence will follow an existing levee system just north of the Rio Grande. Where the levee ends, the remainder of the fence will follow along the edge

of the river. Along this final stretch of the Rio Grande, CBP has proposed 23 fence segments in three Counties (Camero, Hidalgo, Starr) that range in length from one to 13 miles.

Also found along the final stretch of the Rio Grande is the Lower Rio Grande Valley National Wildlife Refuge (LRGV), a wildlife corridor comprised of 115 tracts, most of which are situated along river’s edge. The 90,000 acre Refuge includes approximately 70 river miles and is situated in an area where 95 percent of off-refuge habitat has been cleared.

The southernmost tip of Texas constitutes one of the most biologically diverse regions in North America with four converging climates (temperate, coastal, desert and subtropic), 11 distinct habitat types, two migratory flyways (Central and Mississippi), a documented 1,200 species of plants, 513 species of birds and 300 species of butterflies. It is for the sole purpose of protecting this biodiversity that the LRGV was established in 1979.

Beginning May 2007, refuge and Service staff were been working with CBP on the border fence issue within the lower Rio Grande Valley sector. The originally agreed-upon fence design placed the border fence along the north side of the levee system within Cameron and Hidalgo County, included wildlife passages and allowed access to landowners.

In January 2008, however, after completion of a Draft Environmental Impact Statement, Hidalgo County proposed a second fence design, one that would integrate a major flood-control component. The County’s proposal replaced the wildlife friendly fence with a 16- to 18-foot-high concrete wall. The wall would be placed on the south side of the levee, which will effectively eliminate wildlife passage, access points and require more habitat be taken out for construction. In addition, Hidalgo County’s design will force down-stream areas to incorporate similar measures because of the resulting increased flows. CBP accepted the County’s proposals and efforts are underway to complete construction of 22 miles of concrete wall within Hidalgo County.

In Cameron and Starr Counties, the original border fence design will remain. Regardless, Service biologists estimate that 60 to 75 percent of LRGV will be directly or indirectly impacted by the proposed fence designs. There are significant concerns for safety, logistical and maintenance issues for Refuge staff and fire fighters. Serious and likely irreparable damage will include: restricting the movement of species that rely on connectivity with Mexico for genetic exchange; blocking access to the Rio Grande, which is often the only source of water for wildlife; and bisecting Refuge lands resulting in the creation of 'islands' of habitat and compromising the viability of the wildlife corridor.

In addition, LRGV serves as an anchor for important habitat to the north and south. The Refuge extends to the southern portion of the Laguna Atascosa National Wildlife Refuge and ultimately the great Texas ranch country to the north. Directly to the south, the Refuge is working with Mexican counterparts to connect to ecologically valuable areas such as the Laguna Madre de Tamaulipas, and the Sierra de los Picachos in Nuevo Leon, Mexico. The border fence would create a physical barrier between these projects, possibly compromising genetic exchange of species.

One species of particular concern is the ocelot, a small cat whose range once extended from South Texas into Arkansas and Louisiana. Today, its population has been reduced to 80 to 100 cats, all of which reside in South Texas. Service biologists question the genetic viability of the ocelot and its ability to survive in a diminishing, fragmented habitat. The border fence could further genetically isolate the species by limiting its ability to migrate into Mexico.

The Waiver

In March 2005, the U.S. Congress was in the midst of crafting a supplemental authorization bill that provided funds for the wars in Iraq and Afghanistan as well as funding for tsunami relief efforts. Ultimately, when the funding bill passed it also contained an amendment known as the Real ID Act. The Real ID Act is widely known for its provisions regarding



Jody Mays (left), a wildlife biologist for Laguna Atascosa NWR, tags an ocelot.

a national identification card for all legal U.S. citizens. The Act also, however, included the following 57 words:

Notwithstanding any other provision of law, the Secretary of Homeland Security shall have the authority to waive all legal requirements such Secretary, in such Secretary's sole discretion, determines necessary to ensure expeditious construction of the barriers and roads under this section. Any such decision by the Secretary shall be effective upon being published in the Federal Register.

This section, according to proponents, was intended to address a 14-mile section of fence being constructed near San Diego, California. The Service had issued a non-jeopardy biological opinion for the segment on January 9, 2003. However, construction had been delayed because of concerns from state and local entities. The language in the Real ID Act was not specific to the San Diego segment and the authority granted by the waiver has been used by DHS now on five separate occasions; September 2006 in San Diego, California; January 2007 near the Barry M. Goldwater Range in Southern Arizona;

and October 2007 to complete border fence segments crossing the San Pedro River National Conservation Area in Southeast Arizona.

The most extensive and most recent waivers, issued April 1, 2008 are the only two that have direct implications for lands managed by the Service. However, among the over 30 total, some of the laws waived were the Endangered Species Act, National Environmental Policy Act, National Wildlife System Administration Act, Wilderness Act, Clean Water Act, and the Clean Air Act. The two waivers cover fence construction for over 470 miles in California, Arizona, New Mexico and Texas and another for the 22-mile levy segment in Hidalgo County, Texas.

In making the announcement for the April waiver, the Department of Homeland Security committed to providing numerous mitigation measures for impacts to DOI managed lands including a \$50 million fund for land acquisition and other measures to off-set impacts from fence construction. Despite invocation of the waiver, the Service and CBP continue to identify measures that will result in the most beneficial outcome for both agencies. >>

service spotlight

Border, continued

Looking Ahead

Will the fence work? Will it help curtail the impacts from illegal immigration or will the solution prove to be just as environmentally detrimental as the problem?

Secretary Michael Chertoff of the Department of Homeland Security recently told the *New York Times*, “I don’t believe the fence is a cure all. Nor do I believe it is a waste. Yes, you can get over it; yes, you can get under it. But it is a useful tool that makes it more difficult for people to cross. It is one of a number of tools we have, and you’ve got to use all the tools.”

One thing is certain, the Service will be facing these challenges for a long time. There seems to be no indication of a substantial decrease in the number of immigrants attempting to enter the U.S. illegally. Nor is there a decrease in the necessary border enforcement measures being deployed. By the end of this year DHS will have 18,319 agents—an increase of roughly 12,000 agents since 1996.

As of May 2, 2008 DHS had constructed 178 miles of pedestrian fence and 144.2 miles of vehicle barrier along the southern border.

The issue was best explained by Rick Schultz, DOI National Borderland Coordinator, in his testimony before the House Natural Resources Committee on April 28 of this year:

“In an ideal world and under differing circumstances, the need would not exist to construct border fences and related infrastructure to enhance our Nation’s security or reduce the influx of drug trafficking,” Schultz testified. “In reality, however, Congress has directed DHS to construct border security infrastructure.”

“A project of this scope cannot be accomplished without affecting both environmental and cultural resources,” Schulz continued. “The challenges for DOI and DHS are complex. On the negative side, we have some adverse environmental impacts. On the positive side, border infrastructure, including pedestrian and vehicle fences, is expected to increase our visitor and employee safety, reduce drug trafficking, reduce

Borderline. A timeline of actions associated with border security measures.

2001	2002	2003–2004	2005	2006
<p>April 2001 The Service permits placement of non-permanent water stations on Buenos Aires National Wildlife Refuge.</p> <p>May 2001 14 immigrants die of dehydration trying to cross the Arizona desert at Cabeza Prieta Refuge.</p> 	<p>May 2002 U.S. Border Patrol places a temporary camp on Cabeza Prieta NWR. Due to the demonstrated success of the camp, Border Patrol makes the camp permanent in 2003.</p> <p>August 2002 Kris Eggle, a Park Ranger at Organ Pipe Cactus National Monument is shot and killed in the line of duty while pursuing members of a drug cartel hit squad who fled into the United States after committing a string of murders in Mexico.</p>	<p>2003–2004 Three solar powered emergency rescue beacons are placed on Cabeza Prieta NWR.</p> <p>June 2004 Manager of Cabeza Prieta Refuge is called to testify before Congress on the impacts of immigration and border enforcement activities on federal trust resources.</p> <p>2004 Organ Pipe Cactus National Monument starts construction of a vehicle barrier along the International Border. Construction is completed in 2006.</p>	<p>2005 A study is published indicating that 5–8 pounds of trash are deposited by each individual immigrant attempting to cross the Arizona desert.</p> <p>March 2005 Congress passes the Real ID Act as a rider to the funding Bill for the wars in Iraq and Afghanistan and tsunami relief. The Act granted DHS authority to waive any laws necessary to ensure expeditious construction of barriers and roads associated with border security.</p> <p>December 2005 A record number of immigrants (241) die crossing the Arizona desert in 2005. That same year DHS arrests 101,965 on the seven border refuges.</p>	<p>June 2006 Mitch Ellis, the manager of Buenos Aires Refuge, is called to testify before Congress on the impacts of immigration and border enforcement activities on federal trust resources.</p> <p>June 2006 Wildlife friendly vehicle barriers are installed on Buenos Aires Refuge.</p> <p>The Service and DHS begin installation of Emergency Rescue Beacons on Buenos Aires Refuge for people in desperate need of medical attention.</p> <p>September 2006 DHS issues first waiver authorized by Real ID Act to complete construction of 14 miles of fence in San Diego California.</p> <p>October 2006 Buenos Aires Refuge closes 3,500 acres to public access due to an increase in violence along the border. Refuge biologists are required to have a law enforcement officer accompany them to conduct field work in the area.</p> <p>The Secure Fence Act—directing DHS to construct at least two layers of reinforced fencing and additional physical barriers along 700 miles along the international border with Mexico by December 2008—is signed into law.</p>

the deposition of human trash, and in some cases lessen adverse environmental effects to wildlife habitats and related ecological communities.”

Obviously, the concerns associated with national immigration policy and necessary border enforcement extend well beyond the scope of the Fish and Wildlife Service. Only time will tell where the protection of our Nation’s wild plants, animals, and lands fit in. □

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Overlook at Roma Bluffs World Birding Center in South Texas. A planned combination border barrier/flood control levy will be located just beneath this overlook.

2007

March 2007

Vehicle barrier construction begins on Cabeza Prieta NWR.

October 2007

Service outlines an agreement with DHS to allow fence construction to continue on Buenos Aires Refuge in exchange for land to be added to the refuge. Exchange was outlined in part to prevent DHS issuing another waiver.



2008

January 2008

Luis Aguilar, a senior U.S. Border Patrol agent, killed in the line of duty at the BLM Imperial Sand Dunes Recreation Area in California.

March 2008

Service notifies DHS that it is unlikely that the proposed barrier in Hidalgo County, Texas will be found compatible with the purposes of the Lower Rio Grande Refuge and will therefore not be allowed.

April 2008

DHS issues two waivers authorized by Real ID Act. One waiver covers more than 470 miles in California, Arizona, New Mexico and Texas. The other covers the 22-mile segment in Hidalgo County, Texas.

Service notifies DHS that proposed activities on Cabeza Prieta Refuge may result in the extinction of the endangered Sonoran Pronghorn.

May 2008

DHS requests to place another camp along El Camino del Diablo road through Cabeza Prieta NWR.

