

**SAN BERNARDINO NATIONAL WILDLIFE REFUGE
LESLIE CANYON NATIONAL WILDLIFE REFUGE**

Douglas, Arizona

ANNUAL NARRATIVE REPORT

Calendar Year 2008

U.S. Department of the Interior
Fish and Wildlife Service
NATIONAL WILDLIFE REFUGE SYSTEM

D. Planning

2. Management Plan

e) Department of Homeland Security Tactical Infrastructure Project

The ongoing and cumulative damages being done to important fish and wildlife habitats along the international border by illegal vehicle and foot traffic must be curtailed. For these and other reasons, the Service supports the mission of Department of Homeland Security (DHS) in preventing illegal immigration, smuggling, and helping protect public lands. Refuge law enforcement personnel have been active partners with DHS in planning and implementing national security for many years (see Section H.17). Refuge staff have been demonstrably proactive and successful in ensuring that national security and environmental protection are not mutually exclusive objectives. The Service has supported the concept of a vehicle barrier along the 3.25-mile SBNWR boundary with Mexico, and since 2005 refuge staff have cost-efficiently constructed about 4,000-feet of vehicle barrier on SBNWR in an environmentally sensitive manner so as not to impede wildlife movement while helping secure the border. Since its construction, the refuge vehicle barrier had been 100% effective in preventing vehicle incursions onto SBNWR. Such a barrier, combined with remote video surveillance and the use of ground sensors, could effectively reduce illegal activities along environmentally sensitive portions of the border. Habitat fragmentation is generally negative for plant and animal populations, and refuge personnel do not support building additional roads, upgrading existing roads, creating stream crossings for vehicles, installing artificial lighting, or installing pedestrian barriers anywhere in the San Bernardino Valley because such infrastructure could actually increase damaging activities by both smugglers and by Border Patrol agents, and could increase the cumulative negative impacts to sensitive habitats and protected fish and wildlife.

Since 1892, the international border separating Arizona and Sonora in the San Bernardino Valley has been marked by monuments erected by government surveyors and has additionally been delineated by an 8-strand barbed wire fence built in the 1940's. This fence was installed primarily to prevent livestock from moving freely between the United States and Mexico, and has done little to restrict the movement of wildlife, vehicles, or people. Some portions of the barbed wire fence were constructed within a few feet of the international border, while other portions were built 60-feet north of the actual border. Many portions of the barbed wire fence are broken or even missing.

Under the Secure Fence Act of 2006, DHS was authorized to build up to 700 miles of fencing along the 2,000-mile Southwest border of the United States to promote national security. This "new" fencing was to be composed of various styles of pedestrian and vehicle barriers designed to stop a 10,000-pound vehicle traveling 40 mph. The Border Patrol was given a very specific national security mandate and a very specific timeframe in which to meet that mandate. This action placed the DHS mission in potential conflict with several Department of the Interior (DOI) environmental and cultural resource missions. Additionally, DOI legal obligations did not necessarily mesh with DHS legal obligations, and it was apparent that the two Departments would need to coordinate activities to avoid seemingly insurmountable conflicts.

During October 2007, Refuge Manager Radke participated as a member of the DOI Interim Assistance Team. This interagency group met in Washington D.C. to assist DHS personnel with the coordination of border security activities planned as part of the Secure Fence Act of 2006. Border security infrastructure was scheduled to be built along the entirety of the U.S./Mexico boundary with or without DOI involvement, but it was in DOI's best interest to work with DHS on these projects as a cooperating agency to enhance visitor and employee safety and to optimize the protection of environmental and cultural resources. National DHS representatives made it clear during these meetings that exact tactical infrastructure needs would be the decision of the individual Border Patrol Stations and Sectors, and that communication and coordination in maintaining the crucial relationship between DHS and DOI was necessary to efficiently meet the national security needs scheduled for completion by the end of December 2008.

Largely because of concerns that potential conflicts in government missions would delay their proposed project, DHS invoked a waiver under the Real ID Act on April 1, 2008 to expedite construction of border security infrastructure along the southwest border of the United States. Included in these waivers were a total of 37 environmental laws and DOI authorities associated with the administration of lands and programs. Some of these authorities included the National Environmental Policy Act, the Endangered Species Act, the National Wildlife Refuge System Administration Act, the Migratory Bird Treaty Act, the Archeological Resources Preservation Act, and the Clean Water Act. However, with or without the waiver, DHS stated that they were committed to working with SBNWR personnel to minimize disturbance to the refuge, to protect the environment, and to protect endangered species.

With the threat of an undesignated style of national security barrier planned for the San Bernardino Valley, refuge staff and private landowners proactively engaged DHS to help more accurately assess the need for infrastructure in this rugged, roadless area composed of high mountains and deep drainages carved through highly erodable valley soils. DHS was urged to consider several potential options to minimize impacts to the landscape, and refuge staff and landowners recommended modifications to the inevitable border infrastructure.

On April 3, 2008 the Border Patrol Tucson Sector Chief and the Douglas Station Patrol Agent in Charge toured seven miles of the international border, including most of SBNWR, on horseback. This meeting was orchestrated by Arizona Congresswoman Gabrielle Gifford's office with the help of private landowners representing the Malpai Borderland Group, and it provided an opportunity for the two main individuals who would be making the decisions on tactical infrastructure needs in the San Bernardino Valley to actually see the area and discuss options for meshing border security with private land and endangered species protection. Besides TSC Robert Gilbert and PAIC Eric Odden, participants included ranchers (b) (6) Immigration and Customs Enforcement Agent (b) (7)(C) Refuge Manager Radke, and Douglas Station Border Patrol Supervisory Agent (b) (7)(C). The group looked at private land, state trust land, and refuge land along the international border and discussed the proposed border barrier construction, SBI-net tower sites, access roads, environmental concerns, and related issues. The tour and discussions were very positive, and it appeared that good relationships were built or enhanced. Following the tour, the Border Patrol leadership stated their commitment to securing this portion of the border in an environmentally sensitive way, but

ultimately, this meeting appeared to have little apparent positive influence on DHS decisions to effectively subdivide the San Bernardino Valley with an all-weather road system.

Notwithstanding optimistic statements and hopeful promises, it soon became clear that DHS planned to construct an all-weather road and a vehicle barrier along the international border through nearly the entire San Bernardino Valley. This tactical infrastructure was to be located within the 60-foot strip of land immediately adjacent to the international border known as the "Roosevelt Reservation," set aside by presidential proclamation in 1907 as an easement for border security. The selling point to the Service was that the DHS tactical infrastructure would increase visitor and staff safety and would help reverse the adverse environmental effects of illegal border activities. However, the infrastructure was also expected to create some adverse impacts to environmental and cultural resources, making it challenging for refuge staff to fulfill or uphold their own missions and statutory responsibilities. To help address environmental and cultural resource concerns, DHS contracted with Denver, Colorado-based Engineering-Environmental Management (e²M) to conduct biological and cultural surveys along the border as part of the planning effort for the tactical infrastructure.

Throughout the planning process, refuge staff asked DHS to address several specific concerns relative to the tactical infrastructure being planned for the San Bernardino Valley immediately adjacent to SBNWR. These issues were addressed on September 26 by Supervisory Border Patrol Agent and SBInet Ranch Liaison (b) (7)(C) and Public Lands Liaison Supervisory Border Patrol Agent (b) (7)(C), on October 2 by Agent (b) (7)(C), on October 7 by DHS Consultant David C. Guzewich, and on October 9 by Supervisory Border Patrol Agents (b) (7)(C) and (b) (7)(C). These specific refuge concerns; how DHS stated they would address the concerns; and how DHS ultimately "addressed" the concerns include the following:

1) Refuge staff requested that DHS provide the Service information regarding the origin and type of road-base material to be used during construction of the border road and vehicle barrier adjacent to SBNWR, allowing the Service the opportunity to evaluate the acceptability of the material pertaining to potential contaminants or contaminant by-products (such as mine tailings) that could leach into the watershed. The Service was told that the U.S. Army Corps of Engineers would approve the source of the material and coordinate with the refuge. Ultimately, a local source of road material was excavated under sub-contract from Silver Creek on the Malpai Ranch. This material posed no contaminant concern to the refuge.

2) Refuge staff requested that DHS provide the Service information regarding the origin and type of water to be used during construction of the border road and vehicle barrier adjacent to SBNWR, allowing the Service the opportunity to evaluate the acceptability of the water pertaining to potential contaminants. The Service was told by DHS that the source of the water was not identified in the contract, and the water quality issue could not be guaranteed, however, DHS would discuss the issue and try to accommodate refuge concerns if possible. First, contractors requested to use water from Slaughter Ranch and from refuge wells. Once this request was denied, other local sources of water were used during construction activities. While some water was hauled from Douglas, most of the water used in the San Bernardino Valley was pumped from the Peterson Ranch immediately north of SBNWR, from a new artesian well drilled by sub-contractors west of Silver Creek on the Malpai Ranch, and from an existing well

located on the Magoffin Ranch. The quality of this water posed no contaminant concerns to the refuge, and refuge staff closely monitored refuge wells, pond inflows, and pond levels during the entire construction period to ensure there were no measurable negative effects potentially impacting refuge wetlands.

3) Refuge staff requested that DHS completely avoid clearing or using any "staging areas" on SBNWR, that they completely remove or safely burn any trees or other woody materials removed from the Roosevelt Easement during infrastructure construction, and that they ensure any remaining charcoal is removed so that it would not ultimately wash into refuge drainages and potentially impact water quality. Refuge staff were repeatedly told that DHS agreed not to clear or use any staging areas on the refuge. Additionally, the Service was told that DHS already had a plan in place to remove the woody materials from the Roosevelt Easement without burning them. Ultimately, on November 10, 2008 contractors bulldozed a 100-yard by 100-yard "staging area" outside of the Roosevelt Easement on SBNWR and destroyed archeological sites immediately adjacent to the Slaughter Ranch National Historic Landmark. This refuge "staging area" was then used for building material storage, vehicle parking, and fabrication of Normandy-style barrier sections. Sub-contractors chipped all woody debris into small chunks which were piled within the Roosevelt Easement during the construction phase. Following completion of the road and vehicle barrier, all these wood chips were spread onto staging areas, including the refuge staging area, to a depth often exceeding two feet deep for "erosion control." Staging areas were then hydro-seeded with an unknown mixture of "native seed."

4) Refuge staff requested that DHS conduct construction of stream crossings at Black Draw and Hay Hollow Wash during periods of dry weather when the threat of flooding is minimized. The Service was told by DHS that construction would be performed during the fall of 2008, that the U.S. Army Corps of Engineers were evaluating washes and streams along the border with high potential for scour and flooding to collect lessons learned and would evaluate options to improving fencing in these areas. Ultimately, Black Draw and Hay Hollow Wash were both filled with loose soil bulldozed from road crossing approaches at the sites. The Black Draw crossing was later retrofitted with a 36-inch diameter culvert after heavy equipment became stuck in the saturated dirt crossing. The upstream and downstream edges of both the Black Draw and Hay Hollow Wash crossings were also rip-rapped with loose stone and bales of straw to prevent erosion. These "vehicle crossings" are completely inadequate given the volume of water that comes through these drainages during flood events. DHS has stated they will construct more permanent crossings under contract at some point in the future.

5) Refuge staff requested that DHS salvage endangered fish from Black Draw prior to construction of a vehicle crossing through this stream channel, and ensure that fish do not recolonize the site during construction. The Service was told by DHS that a biological monitor would be on site, that DHS would monitor for fish and that "Best Management Practices" were in place to address encounters with endangered species. Ultimately, even though hundreds of federally-listed endangered Yaqui topminnow were visibly present at the Black Draw stream crossing site, sub-contractors bulldozed soil into the stream channel, later installed a culvert in the stream channel, and totally ignored the presence of endangered species. Refuge staff repeatedly seined the site and removed hundreds of Yaqui topminnow during construction, and no dead fish were ever documented. Repeated requests by the Refuge Manager to receive copies

of the "Best Management Practices" produced by DHS for dealing with endangered fish at the site were also ignored.

6) Refuge staff requested that DHS ensure that sediment from related road and vehicle barrier construction would not erode into Black Draw and Hay Hollow Wash creating stream siltation. The Service was told that DHS would follow an established "Storm Water Pollutant Prevention Plan" and conduct erosion control. Ultimately, straw bales and other erosion control materials were installed at sites where runoff was anticipated. The measures are totally inadequate in dealing with the volume of water that comes through these drainages during flood events. Requests by the Refuge Manager to receive a copy of the "Storm Water Pollutant Prevention Plan" were ignored.

7) Refuge staff requested that DHS engineer and construct their necessary stream crossings across Black Draw and Hay Hollow Wash to double as effective fish barriers to prevent upstream migration of non-native fish. The Service was told that the U.S. Army Corps of Engineers were evaluating washes and streams along the border with high potential for scour and flooding to collect lessons learned and to evaluate options to improving fencing in these areas, and that biological monitors would be on-site during construction to monitor activities in these areas. Ultimately, the dirt crossings installed at refuge stream crossings were totally inadequate in dealing with the volume of water that comes through these drainages during flood events, and these crossings did not incorporate any kind of fish barriers in their designs. Refuge staff have subsequently requested fish barrier installation as part of a DHS mitigation package to compensate the refuge for environmental damages incurred during construction.

8) Refuge staff requested that DHS would not remove the existing 4,000-foot of vehicle barrier located along the south boundary of SBNWR, as DHS had initially stated was their intention because it presented a safety hazard to their agents along the border and because it was their perception that a vehicle barrier located 60-feet north of the border would effectively "withdraw" that 60-feet to Mexico. The Service was told that DHS agreed not to remove the refuge owned vehicle barrier located on DOI land. Ultimately, none of the refuge-owned vehicle barrier was removed, and a Border Patrol supervisor even remarked on one occasion that the barrier would be good because it would help keep agents from entering the refuge via the Roosevelt Easement border road. DHS refused to tie into the existing refuge vehicle barrier, preferring to construct a parallel vehicle barrier of their own near the south edge of the Roosevelt Easement. The DHS barrier was ultimately constructed several feet north of the international boundary throughout the entire San Bernardino Valley, and near Guadalupe Canyon on the east side of the Valley the DHS barrier was constructed several hundred yards north of the international border.

9) Refuge staff requested that DHS remove the existing 8-strand barbed wire border fence located south of SBNWR, and replace this barbed wire fence with a DHS-approved post and rail style vehicle barrier with posts spaced at 4-foot centers. Refuge staff also requested that double-strand barbless wire be added to the new vehicle barrier at suitable increments (beginning at 20" from ground level) to stop livestock movement between Mexico and the United States while still ensuring adequate wildlife passage. The concern was that the close proximity of the existing 8-strand barbed wire fence to the new post and rail vehicle barrier would act as an effective barrier for many wildlife species. The Service was told that DHS would use post and rail barriers along

the entire southern boundary of SBNWR and would use a single span of sucker rod rather than wire to prevent livestock (calves) from walking under the vehicle barrier. Ultimately, contractors removed all the existing barbed wire border fence along the south refuge boundary, but installed only about 1.6-miles of post and rail style vehicle barrier – instead using “Normandy-style” barrier for the remaining 1.7-miles through the refuge. No span of sucker rod has yet been installed on the post and rail barrier, but three evenly spaced spans of square steel tubing were welded to the Normandy barrier.

The “Normandy-style” vehicle barriers, apparently used by contractors to increase cost efficiency and to expedite construction, are heavy but are not anchored to the ground. Within three days of completion of the project in the San Bernardino Valley, drug smugglers began cutting portions of the Normandy barrier, which a group of men could then physically lift and move to allow vehicles loaded with marijuana to drive into the United States using the new system of all-weather roads constructed by DHS. Drive-through drug loads have subsequently increased in the San Bernardino Valley.

10) Refuge staff requested that DHS would not trench through the “Mormon House” archeological site (see Section D.4.f) to facilitate vehicle barrier construction. Instead, DHS was asked to span the entire structure or to drill individual post holes that would not impact the historical site, to cover the entire Mormon House structure on the Arizona side of the border with soil, and to mark the site to protect it from future destruction and vehicles. The Service was told that DHS would protect the foundation, archeologists would excavate and then backfill the site, and no vehicle barrier posts would be placed in the foundation of the site. Several times during construction, contractors on heavy equipment almost damaged the archeological site due to miscommunication, however, on-site refuge staff prevented the damage each time. Ultimately, the site was excavated by e²M archeologists, and the Mormon House was then covered and fenced to protect the site from future inadvertent destruction.

11) In addition, refuge staff became concerned that the planned tactical infrastructure would impede floodwater across the international border, increasing water depths during floods, and accelerate stream channel erosion in sensitive riparian areas; that debris carried by floodwaters would be trapped against the barrier and impede or redirect flow; that lateral flow of floodwater would cause environmental damage, damage roads, and increase siltation in the Río Yaqui watershed which would negatively impact federally-listed threatened and endangered fish. The concern is that soil erosion and sedimentation problems will affect water quality if transported into aquatic environments. Increased sedimentation can reduce water clarity, destroy benthic food sources, damage fish spawning sites, and lead to unnatural stream aggradation. Fine sediments in wetlands can reduce oxygen availability to fish eggs and increase embryo mortality, can impact the function of gills in fish and other aquatic organisms, and can ultimately cause suffocation. The Service was told that DHS infrastructure would be designed so that the natural flow of water would not be impeded, that vehicle barriers would be removed prior to flash floods, and that debris would be removed from the barrier so that backwater flooding and lateral water flows would not occur or be enhanced. In reality, it seems extremely unlikely that any of these actions will be taken by DHS.

The DHS strategy of achieving more security along the international border exemplified a

general lack of respect for the mission of the Service, and showed an almost total disregard for the principles of basic collaboration and honest communication which have greatly damaged working relationships and trust. Everyone involved was trying to predict a future pattern of illegal activities, yet nobody can accurately foresee the future. As a result, perhaps it was understandable that DHS chose to err on the side of caution regarding the infrastructure they desired. However, the consistent failure of DHS to adequately communicate with refuge staff and private landowners in the San Bernardino Valley was largely responsible for many of the resulting negative impacts to the area. Simply put, DHS infrastructure installed in previously roadless areas of the Valley should have been more thoughtfully designed so that it wouldn't actually create opportunities for illegal activities that did not previously exist.

Under the stated goals of deterring illegal immigration, smuggling, and terrorism, DHS continues to threaten SBNWR with multiple cumulative environmental impacts. For example, multiple DHS requests to construct surveillance towers on SBNWR were received during 2008. DHS requests to construct a forward operating base on SBNWR were received on July 28 and again on September 19. A DHS request to use refuge water was received in October. A DHS request to run a water line through SBNWR from the Peterson Ranch to the international border was received on October 21. A DHS request for vehicle access by agents onto SBNWR was received during December. With each verbal request from DHS, Refuge Manager Radke explained that the Appropriate Refuge Uses Policy (603 FW 1) and the National Wildlife Refuge System Administration Act establish that conservation and management of fish, wildlife, and plants, and their habitats are the fundamental mission of the Refuge System, and that Border Patrol was required to submit a complete written request and justification to the Service so that proposed activities could be formally evaluated and documented decisions could be made, and that any potential compatibility analyses pertaining to the requests could be initiated.

Ultimately, no written requests were received from Border Patrol during 2008. SBI-net tower sites were thoughtfully located off-refuge to minimize environmental disturbance while maximizing border protection, and refuge staff were informed that no forward operating base would be proposed for the refuge. However, a pending Douglas Station Border Patrol request for vehicle access by their nearly 600 agents to SBNWR remains a serious concern that was unresolved by year's end.

The main Service concerns relative to DHS tactical infrastructure and operation of the border barrier through the San Bernardino Valley were habitat destruction and negative impacts affecting the free passage of native fish and wildlife populations back and forth through this border region for migration, dispersion, and genetic exchange. The impacts of the DHS tactical infrastructure on plant, fish, and wildlife populations are currently unknown and have not yet been thoroughly studied. In addition, the effects of landscape fragmentation and population discontinuity may not be immediately apparent. These information gaps need to be adequately researched so that the infrastructure that has already been installed can be modified, if necessary, to address possible solutions to environmental impacts.

Department of Homeland Security did not adequately eliminate the foreseeable environmental impacts of the tactical infrastructure they installed along the United States border with Mexico, and this resulted in many conditions under which wildlife corridors and protected areas are now

potentially being negatively affected by that infrastructure. Because of this, DHS has agreed to cooperate with DOI to identify site specific solutions for problems created by the infrastructure, and has tentatively claimed they will fund a total of \$50 million over a ten year period for compensation and mitigation projects to be split among California, Arizona, New Mexico, and Texas. During December 2008, SBNWR staff provided several refuge project proposals that would potentially qualify for this mitigation money. These include: 1) construction of a fish barrier in Black Draw to prevent the upstream movement of non-native fish species; 2) restoration of about 50-acres of wetlands within the historic San Bernardino Ciénega to provide wetland habitat for a significant number and diversity of fish and wildlife; 3) construction of multiple rock and wire erosion control gabions within Black Draw and Hay Hollow Wash to catch water-borne sediments being transported by flood events and effectively help re-build the floodplain and restore groundwater recharge; and 4) upgrade existing dirt roads with appropriate base coarse gravel and culverts to allow refuge administrative use of areas that have been cut off by installation of DHS infrastructure. Hopefully, such DHS compensation for take of federally-listed species and mitigation of affects to DOI lands will stimulate decision makers to accept and recognize that there are alternative approaches to reconcile national security and environmental objectives along the international border.

I. EQUIPMENT AND FACILITIES

1. New Construction.

Force account construction of a vehicle barrier, which began in 2005, is continuing. This barrier follows the standard established by Organ Pipe National Park, and will eventually run much of the length of the refuge along the international border. The barrier is designed to prevent vehicles from crossing onto the refuge from Mexico. It is constructed of staggered height 6" square tubing upright posts, cemented 5 feet deep into the ground and spaced 5 feet apart, and then filled with 1" diameter steel reinforcement bar and concrete; with railroad rail welded horizontally along the square tubing uprights. By the end of 2007, the vehicle barrier had been installed along the border from Hay Hollow Wash to just west of Robertson Cienega, a total distance of about 4,000-feet. With the construction of the road along the International Border with Mexico by the Department of Homeland Security (DHS), three roads were permanently closed off, that at the beginning of this project were going to be gated. The refuge decided to close these roads to prevent unauthorized vehicle access onto the Refuge by Border Patrol Agents or contractors for DHS. Work was completed by heavy equipment Operator Larry Brasher and volunteer (b) (6).

A new section of barbed wire fence was placed on the southern boundary of the refuge adjacent to Double Ph.D. Pond. The refuge eventually plans on replacing the fence and completing the construction of the vehicle barrier that can be found on other parts of the southern refuge boundary. The fence was put up to deter contractors for the DHS and agents of DHS from gaining access to areas on the refuge without existing roads. When work resumes on the vehicle barrier, the wire fence will be removed. Brasher and volunteer Rodriguez completed the work on the fence section.