

**SOUTHERN ARIZONA PROJECT
TO
MITIGATE ENVIRONMENTAL DAMAGES
RESULTING FROM ILLEGAL IMMIGRATION**



**FISCAL YEAR 2008
END-OF-YEAR REPORT
BUREAU OF LAND MANAGEMENT**

The Southern Arizona Project To Mitigate Damages Resulting from Illegal Immigration and Smuggling

Fiscal Year 2008 End-of-Year Summary

Introduction

The Southern Arizona Project is a program administered by the Arizona Bureau of Land Management (BLM) to mitigate the impacts of illegal immigration and smuggling through on-the-ground projects. The program focuses on the borderlands, the roughly 100 miles north of the US-Mexico border, that stretch from the New Mexico border on the east to the California border at the Colorado River on the west.

Between FY2003 and FY 2005, the Project was funded through supplemental appropriations approved by Congress. Since FY 2006, the BLM has provided funding through its base annual appropriations for resource protection. In FY2008, the program dollars were \$ 711,000. The program funding totals over \$5,000,000: FY2003 \$695,000; FY2004 \$790,000; FY2005 \$986,000; FY 2006 \$971,000; FY2007 \$962,000.

Program dollars were shared among BLM offices in the southern Arizona borderland: the Arizona State Office (Phoenix); Colorado River District, Yuma Field Office; the Phoenix District, Lower Sonoran Field Office; and the Gila District, Safford and Tucson Field Offices. Funds were also transferred through appropriate agreements to neighboring counties and towns, federal and state agencies, non-governmental groups, and to the Tohono O'odham Nation and Pascua Yaqui Tribe for mitigation activities on their lands.

Annual reports, included FY2008, have been posted to the website:

http://www.blm.gov/az/st/en/info/newsroom/undocumented_alien.html

Part I: Program Accomplishments Fiscal Year 2008

In the descriptions below and in the attached Appendices, each participating agency's major efforts and accomplishments are listed. Once again partners include federal state, local and tribal agencies. As in previous years, key groups in ensuring the success of this program also include the Student Conservation Association (SCA) interns and the Southwest Conservation Corps as well as hundreds of volunteers willing to dedicate time and energy to restoring these important landscapes.

Some interesting patterns are revealed in the FY2008 projects: 1) Extremely large sites were recorded and some were cleaned up; 2) road and illegal trails restoration projects were the focus of much activity; and 3) infrastructure projects, such as wells, fences,

cattle guards and barriers, contribute to effective resource management and reduce degradation.

Large sites. Despite efforts since 2003 to clean up trash areas, some very large sites remain. Many were recorded and cleaned up in the last two years, but many remain recorded only; others are not even known yet but believed to exist along trails. The FY2007 End-of-Year Summary provides details of the BLM mapping project within the Ironwood Forest National Monument (IFNM). BLM staff located immigrant trails (largely north/south) across the IFNM and vicinity: West Silverbell Trail over 11.2 miles in length, 8.2 acres; the Roskrige Trail, 6.4 miles; the Malpais Trail 11.5 miles; and the Ajo Foot Trail just to the south of the IFNM and south of Garcia Strip) of 6.9 miles. Each trail segment is accompanied by significant amounts of trash that may extend beyond the trails in washes, side trails and layup sites. In February 2008, the BLM cleaned up the Ajo Foot Trail. A 15-member SCC crew, 2-member SCA crew and 3 additional workers (SCA and park rangers) collected 606 bags or 13,332 lbs. of trash from this area. The trash removed included 3,679 migrant backpacks.

The Arizona Game and Fish Department (AZGFD) conducted aerial surveillance as preparation for the Hunters Who Care March 2008 event. AZGFD flew the northwest section of the Altar Valley for approximately two hours. AZGFD staff visually located and documented thirty-one large layup sites for clean up—that is sites greater than 50 meters in one dimension. Most sites were polygons; some sites were 150 meters long, by 50 meter wide. Linear trail sites similar to the ones reported in the IFNM were also seen. Using the GPS data allowed AZGFD to place volunteers in clean up locations more efficiently than in past years.

Large sites have also been reported by other agencies including those sites in the urban fringe that include both immigrant trash and resident or visitor debris. The Gila Watershed Partnership cleaned up large camp sites along the Gila River. Both the IFNM and AZGFD efforts show the promise of using aerial and on-the-ground mapping to indicate the extent of the problem.

Road and Trail Restoration. Restoring routes is a difficult task requiring a number of actions from breaking down berms to planting difficult-to-handle desert plants. Similar to the principle of “trash begets trash”, illegal trails created by smugglers quickly become re-used by other smugglers, visitors or recreationists turning trails into roads. In one case, smugglers deliberately created miles of road in wilderness. The BLM Phoenix District concentrated efforts in the Lower Sonoran Desert Monument with over 5 miles of rehabilitated roads and dozens of illegal side trails masked or reclaimed to disguise these entry points. The BLM Tucson Field Office reclaimed 25 illegal routes. In addition to removing trash and raking out trails, these rehab teams practice “vertical mulching” which uses standing plants as well as dead desert plant materials to mask entry points.

Infrastructure Repair and Installation. Agency teams inspected and repaired over 14 miles of fencing, installed cattle guards, maintained wells, added protective barriers, and maintained roads. The completion of the projects contributes directly to the ability of agencies and ranchers to manage local resources which are damaged or threatened by illegal activities. Some infrastructure projects such as using boulders to block an

archaeological site from vehicles or using barriers to keep vehicles from riparian areas will last for a while, as will cattle guards. Fences and roads however, require multiple repairs as smuggling vehicles going **both** north and south damage roads beyond the intended uses. Fences are repeatedly run through by vehicles or damaged from crossers. Coronado National Forest and the AZGFD Department both note the difficulty that ranchers or permit-holders have managing pastures when smugglers drive right through fence gates.

A Summary of Accomplishments for FY2008:

- Litter removal: over 184,567 lbs were picked up and disposed from BLM-managed lands; long-stretches of public lands up to 9 miles long were cleaned of trash;
- Litter removal: over 28,800 lbs removed from tribal lands and 16,000 lbs. plus 3 dumpsters (120 cu.yds) from other southern Arizona lands.
- Abandoned cars: 70 abandoned vehicles, 17 bicycles and 144 tires were removed from BLM-managed lands;
- Fencing and repairs: over 22 miles of fencing were inspected and repaired; 8 miles in the San Bernardino/Leslie Canyon NWRs; 4.2 miles in the Buenos Aires NWF (and removed $\frac{3}{4}$ mile of old fence); and the remainder mainly on BLM-managed lands; BLM also repaired 12 Off-Highway Vehicle protective cables along the SPRNCA;
- Roads and trails rehabilitated, removed or restored: the BLM Lower Sonoran Field Office/Sonoran Desert National Monument (LSFO/SDNM) rehabilitated 5 miles of illegal routes and at least 21 entry points were masked; SDNM also placed over 100 signs or regulatory posts to block illegal recreation uses; the BLM Tucson Field Office (TFO) rehabilitated 25 illegal routes and installed visitor warning signs;
- Roads maintained: BLM maintained 4 miles and treated roads for dust in the Las Cienegas NCA; the AZGFD worked with the Marley Ranch to install 8 cattle guards and the Coronado National Forest purchased cattle guards for fall installation;
- Sensitive area protection: FWS added 4,000 ft of wildlife-friendly barrier in San Bernardino National Wildlife Refuge (SBNWR). BLM repaired the vehicle barrier at the archaeological site Bead Hill;
- Restoration Projects: BLM Yuma Field Office planted 289 willows and 128 cottonwood trees on 5 acres along the Colorado River in areas damaged by illegal crossing trails. The LSFO/SDNM reclaimed 15 acres of illegal roads, illegal immigrant staging areas, and OHV route damage;
- Windmills and wells maintained: BLM Phoenix District maintained three wells operated to benefit the Sonoran Pronghorn.

- Environmental Monitoring: FWS San Bernardino/Leslie Canyon continued monitoring the impacts of immigration and smuggling to natural resources on refuge lands;
- Special law enforcement details supported by the program funds produced these results during their patrol or operations: stolen vehicles recovered 25; vehicles impounded tied to UDI smuggling 61; UDIs detained for USBP 284; Marijuana pounds seized 1,447 lbs; and security flights 25.

Bureau of Land Management

Arizona Border Security Detail

In FY2008 Arizona BLM law enforcement units were provided with \$75,000 in funding to provide security for crews completing cleanup and rehabilitation, and to provide emergency care to any persons found in distress in the southern Arizona deserts. Other indirect goals were to increase the law enforcement presence in order to serve as a deterrent for undocumented immigrant and drug smuggling, prevent additional resource damage and trash dumping, and provide increased visitor and employee safety on public lands. Including the rangers that normally patrol the border areas, there were a total of 700 hours of total overtime worked during FY07.

Rangers from the El Centro Field Office regularly assisted the Yuma Field Office in patrolling the border areas. Agents from the Arizona State Office and Rangers from other Field Offices in Arizona assisted the Gila and Phoenix Districts.

Listed below are the highlights and statistics from this time period taken from Significant Activity Reports:

Highlights and statistics from this time period taken from Significant Activity Reports:

	FY08	Compared to FY07
• Stolen Vehicles Recovered	25	41
• Vehicles Impounded tied to UDI Smuggling	61	91
• Undocumented Immigrants Detained for USBP	284	457
• Pounds of Marijuana Seized	1447 lbs	4622 lbs
• Assaults of Ranger (By Vehicle)	1	1
• Weapons Seized	0	3
• Backup to Assault of Border Patrol Officer	0	3
• Assist on Recovery of UDI Exposure Fatalities	0	3
• Search and Rescue Operations	6	8
• Border Security Details	18	35
• Border Drug Flights	7	25
• UDA Layup Sites (dump/litter)	3	
• UDA related shooting non/LEO involved	1	
• Coordinated Border Patrol Operations	4	
• Environmental Training for Border Patrol	4	

BLM Phoenix District Office

The Phoenix District Office, including the Lower Sonoran Field Office, received \$242,200 in funds during FY2008. Project details and photographs are provided in Appendix B.

SCA interns, SCC youth crews, BLM resource staff and BLM law enforcement rangers collected 251 bags of trash, 17 bikes, 26 tires, and rehabilitated five miles of routes associated with illegal smuggling activities from October 2007 to September 2008 on the Sonoran Desert National Monument (SDNM). There were also several instances of target shooting debris and dump sites of household material.

Areas on the monument south of Interstate 8, specifically Vekol Valley, Freeman and Smith Road contained most of the trash. Illegal routes reclaimed were mostly south of Interstate 8 in the Table Top Wilderness Area, Smith Road, Freeman Road, and Area A (Sand Tank Mountains). SCC crews were utilized for three weeks on two major projects, assisting with route rehabilitation and trash removal related to illegal smuggling activities.

In addition to border traffic restoration projects, SCA interns performed public contact, patrols, invasive species eradication, and manned tables at outdoor expositions. The SCAs and SCC crews repaired fences, signed areas, and supervised other volunteers.

Rehabilitation of roads and trails most often involved erasing ruts, knocking down berms and removing vehicle tracks caused by vehicles followed by vertical mulching techniques with dead ocotillo and creosote bushes. Crews placed dead creosote limbs, rock sand

gravel on top to disguise road loops and illegal entries. Once rehabilitated, the area will continue to reclaim as the winter rains and desert annuals provide restoration and ground cover.

Bicycle Removal: Surprising to most people, UDIs and smugglers often ride bicycles from Mexico cross-country on their journey north into the US. They abandon the bikes at or near their final pickup point and the bikes accumulate at places one might least expect. The SCA interns gathered these bikes, sometimes walking them one at a time out of remote locations in the Table Top Wilderness Area. They were brought in to the PDO and then donated to Goodwill Industries or other charitable organizations for repair and eventual donation to needy families.

Lower Sonoran Field Office/Sonoran Desert National Monument: Project Highlights

- Vekol Valley D Road, November 2007; SCAs and SCC; crews erased the prominent illegal roads created by off-highway vehicle (OHV) users. Dismantled berms caused by off-road traction and raked out off-road tracks. Replanted vegetation, including vertical mulching techniques; primarily used creosote bush and ocotillo. Finished project by throwing dead creosote limbs, rocks and gravel on top to disguise loop.
- SCC Crew Vekol Valley UDA Trash Removal and Illegal Smuggling Route Restoration, Nov. 26 - Dec.6, 2007, south of Interstate 8: Vekol Road; 6-member SCC, SCAs and park rangers; removed 5 bags of trash and restored 12 illegal routes through heavy rehabilitation. Ruts were knocked down, rocks distributed, vegetation barriers installed and other repairs prescribed for long stretches of braided road.
- SCC Crew Smith Road/ Antelope Peak / Table Top Wilderness Area; UDA Trash Removal, Fence Repair and Illegal Route Restoration, Jan. 21 – 25, 2008, south of Interstate 8: Smith Road/ Antelope Peak /Table Top Wilderness Area; 7- member SCC, SCAs and park rangers, removed 31 bags of trash along Smith Road and the Antelope Peak area. Repaired 30 feet of fence along Smith Road; restored 2.5 miles of illegal routes with vertical mulching.
- Vekol Valley Vehicle Route Tracks Eradication, Feb. 8, 2008, Vekol Valley, SDNM; SCA interns removed vehicle tracks, restored area using raking sweeping, plant materials, vertical mulching, and posted road closure signs.
- Eradication of OHV Tracks into Wilderness, April 9, 2008, SDNM; SCA interns reclaimed illegal smuggling route into wilderness through vertical mulching and other techniques, signed with carsonite posts.
- Antelope Peak Jeep Trail Eradication, Jan. 25, 2008, SDNM, Vekol Valley, Table Top Wilderness; SCA interns rehabilitated road and reclaimed impacts through digging out the ruts, vertical mulching and other techniques. Project required several hours of crew labor from wilderness boundary south about 150 feet.

- Vekol Valley Dump Site A, April 16, 2008; SCAs cleaned up UDA trash and restored area; Dump Site B, April 28, 2008; SCAs cleaned up and restored second dump site.
- Bicycle Removal, SDNM, ongoing removal of bicycles as staff locate these. In 2007 and 2008, at least 17 bikes were removed.
- BLM Law Enforcement; Vehicles Removal, October 2007 to September 2008, SDNM BLM law enforcement rangers and Border Patrol; removed 70 vehicles south of interstate 8 related to illegal smuggling activities. Includes 7 from the Sand Tank Mountains reported by SCA interns.
- Medical Evacuation & Resource Impacts Eradication, December 2007, East Butterfield, Road 8008 (3 miles in from 238); SCA interns erased ruts and vehicle tracks caused by emergency vehicles. Utilized vertical mulching techniques with dead ocotillo and creosote bushes. Area was rehabilitated and will continue to reclaim as the winter rains and desert annuals provide restoration and ground cover.
- Borderland's Target Shooting Site, January 2008, one-half mile north of Highway 238 on West Butterfield; SCA interns removed target shooting debris.
- Cabela's Sportsman's Exposition, 2/23/2007 - 2/24/2007, Cabela's Sporting Goods Store, Phoenix, Arizona; SCA interns and BLM staff provided outreach on SDNM, BLM, the borderland issues, and appropriate recreational uses/opportunities.
- Butterfield Stage Overland Trail and the Anza National Historic Trail, May 2008, SCAs and BLM staff assisted the National Historic Trail Workshop field tour; provided education on restoration techniques and repair efforts.

Phoenix/Lower Sonoran Field Office Partnership: the International Sonoran Desert Alliance

Project Reports have not been received from the International Sonoran Desert Alliance. Funds were obligated to late in FY2008 for projects to be initiated and completed on-the-ground. These efforts will be reported in the FY2009 Southern Arizona Project Report.

BLM Gila District

The Safford Field Office (SFO) and the Tucson Field Office (TFO) are managed through the Gila District Office. Both offices manage substantial borderlands currently being impacted by illegal immigration and smuggling from the lands just adjacent to the border including the SPRNCA to the IFNM which is 70 miles north of the international border.

BLM Tucson Field Office

The Tucson Field Office (TFO) received \$245,500 in FY2008 to develop and complete projects. The money was used in several partnership agreements to clean up trash left behind by smugglers and illegal immigrants, assist in the rehabilitation of degraded lands, contracts for waste removal, and for the costs of materials and supplies. Project details and photographs are provided in Appendix A. The Tucson staff achieved these results or made the following efforts:

Coordination, Safety Training, Orientation, Equipment and Supplies for SCA Interns:

- Coordinated Student Conservation Association (SCA) interns and volunteers, training and equipping field workers with safety and telecommunication needs.
- SCAs organized volunteer groups. BLM staff and SCA interns worked closely with several organizations that provided significant service hours to remediate the impacts caused by smugglers and illegal immigrants on public lands;
- Coordinated conservation crew projects: Southwest Conservation Corps (SCC) and affiliated with the SCC, the Community Learning Adventure Service Project (CLASP).
- Furnished or purchased equipment and supplies for crews including: 1) travel money for camping, 2) Trimble GeoXM handheld unit, 3) truck box and bed liner, 4) equipment and vehicle maintenance and repairs including replacement tires for trucks, 5) hand tools for restoration projects, 6) steel storage container to house supplies and equipment, including shelving to organize tools, 7) cement and other supplies for installing five visitor warning signs, 8) rental roll off containers for waste disposal near large project sites.
- Ensured safety and training for SCAs and volunteers: 1) Providing safety equipment, including gloves, trash grabbers, hand sanitizer, first aid kits, appropriate PPE (i.e. hearing and eye protection); 2) immunizations to mitigate exposure to high risk diseases, 3) SCA/BLM staff developed 5 day new employee orientation covering topics from defensive driving, to working in remote locations, to 4WD, and Leave No Trace ethics, 4) four day desert ecology training through Tucson Audubon Society for SCA intern, 5) Wilderness First Responder Training for two new SCA interns and recertification for continuing SCA intern.
- Renewed landfill contract for proper disposal of collected waste.
- Purchased & distributed trash bags: 600 bags were donated to volunteer groups such as Humane Borders, Samaritans, Silverbell Estates Community and Red Hill Community.

Student Conservation Association

Four SCA interns were contracted to organize and assist with work projects approved for the TFO. Two were assigned to the IFNM, one was assigned as needed to the LCNCA and the IFNM, and one was assigned to the SPRNCA. As part of their training, these interns have become certified Wilderness First Responders. They have developed and undergone field safety orientations to become familiar and confident in performing their jobs under the current conditions, which include working in remote areas where illegal smuggling of people and drugs occur, with little or no radio/cell phone coverage and in extreme weather conditions.

In addition to organizing and working with a variety of organizations and groups to do cleanup and repairs, these SCA interns spent more than 110 hours themselves, cleaning up trash left by smugglers and undocumented migrants.

The SCA interns will be performing these tasks to support FY 2009:

- Coordinating 3 weeks of project work with the SCC
- Coordinating 1 week with CLASP*
- Coordinating and orienting new SCA interns and new BLM staff
- Coordinating with partners for regular cleanup and rehabilitation work (e.g. Humane Borders, Sky Island Alliance, Sierra Club, Silverbell Estates Community, Hunters Who Care, Red Hill Community)
- Documenting and remediating sites being damaged by undocumented migrants
- Documenting foot trails being created by undocumented migrants
- Coordinating waste removal, tire collection and removal, and disposal of other items not fit for landfills
- Installing and maintaining bilingual signage
- Recording and rehabilitating cross country vehicle routes (as a result of smuggling)
- Creating and organizing an education activity for the annual Ironwood Festival.

* Bi/annually, the SCAs coordinate with a local high school to do a service project. The SCAs coordinate community speakers and a week of community service to provide a dual educational/service based program that examines and helps mitigate the impacts caused by smugglers and undocumented migrants.

TFO Project Highlights: IFNM and vicinity

- SCAs spent more than 110 hours themselves cleaning up 1.7 tons/3,835lbs. of trash and 26 tires. The SCAs in coordination with BLM park rangers installed 5 visitor warning signs, totaling about 48 hours of work.
- Removed UDI trash from public and neighboring lands: continued collection efforts through two roll-off dumpsters. Since Oct. 24, 2007, 10 roll-off containers have been filled equaling approximately 22.8 tons.

- Rehabilitated routes: In coordination with both SCC and CLASP, the SCAs rehabilitated 16 illegally created routes. The park ranger and SCAs in coordination with Friends of the Ironwood Forest (FIF) rehabilitated 9 illegally created routes totaling 1.3 miles.
- An SCC crew and two SCA interns worked in the backcountry of the IFNM December 2007 to clean up 159 bags or 2,385 lbs. of trash. They hiked the trash out of a wash for 1 mile.
- In February, a 15-member SCC crew, 2-member SCA crew and 3 additional workers (SCA and park rangers) collected 606 bags or 13,332 lbs. of trash from BLM land within proximity of IFNM. The trash removed included 3,679 migrant backpacks. The participants bagged trash and hiked bags 0.5-1 mile back to vehicle staging area, working a total of 806 volunteer hours in 5 days.
- One CLASP crew worked 24 hours in the IFNM in March to remove a total of 155 bags or 2,480 lbs. of trash 1.5 miles out of Cocio Wash. The crew of 9 met with federal agency employees, volunteers and community speakers to learn about the land, illegal immigration and its effects. Through these educational sessions and practical work experiences, the crew became intimately familiar with, as well as remediated the impacts of, smuggling in southern Arizona.
- In April, a 48-member youth group from Wellesley, Massachusetts volunteered at IFNM for one day. The morning was spent cleaning up trash along a foot trail, resulting in the removal of 54 bags of trash or 810 lbs. The afternoon was spent in educational time with federal agency employees and community speakers in order to learn about the causes and impacts of smuggling in southern Arizona. The group generally agreed that this was the most rewarding and meaningful part of their one-week long service trip to Arizona.
- Two neighborhood groups adjacent to the IFNM (Red Hill Community and Silverbell Estates) collected 177 bags = 4,110 lbs. This amount included 28 tires found in the IFNM. BLM staff and SCA interns then picked up and disposed of this trash.

Town of Marana, IFNM Program

The Town of Marana has been performing significant cleanup projects in and around the IFNM to remediate the impacts from illegal smuggling. They perform cleanup work on a weekly basis on lands within and bordering the IFNM.

- The Town of Marana crews have collected an average of 0.3 tons or 616 lbs of trash per week.
- The Town removed and disposed of 90 tires.

TFO Project Highlights: San Pedro Riparian National Conservation Area (SPRNCA) 2008

- With the Boy Scouts on April 12, 2008, cleaned approximately 3 miles along the San Pedro trail and railroad grade that runs parallel to the San Pedro River; 1,220 lbs of trash were removed.
- With SCC in March, 2008, cleaned directly along the San Pedro River and Railroad grade for approximately 3 miles in the Hereford bridge area.
- With City High School of Tucson, cleaned approximately 3 miles along the San Pedro River in the Boquillas Ranch area.
- Repaired SPRNCA boundary fence in Garden wash, Hunter wash, Miller wash and Carr-Ramsey wash. Numerous repairs have been made due to flood washouts and persons cutting the fence down to allow ATV access.
- Repaired vehicle barrier at Bead Hill Archaeological site to prevent illegal vehicle access. Area cleaned of approximately 400 lbs. of UDI trash.
- Repaired approximately ½ mile of barbed wire fence with the aid of the fire crew immediately east of the Hereford Bridge.
- Completed the construction of 6 railroad grade cable barriers in February/March of 2008 along the SPRNCA corridor. These barriers also included fence work to tie the barriers into the existing fence.
- SCA's and Park Ranger picked up over 2,175 lbs. of UDI trash from the SPRNCA.

TFO Project Highlights: Las Cienegas National Conservation Area (LCNCA)

- Approximately 4 miles of road was maintained by the BLM Gila District Force Account Crew. Funding was used to operate the machinery and pay for mobilization.
- Dust abatement was applied utilizing water truck and water trailer with mixed Soiltac stabilizer, after road maintenance and where increased vehicle traffic dictated a need. Approximately 7 road miles treated. The main road was spot treated twice due to heavy traffic; primary dust treatments were done in October 2007 and September-October 2008, with minor work throughout year.
- Completed other signage and maintenance assessments for future projects.

Safford Field Office

The Safford Field Office (SFO) received \$ 48,000 for FY2008, most of which was provided to partners through agreements. SFO purchased almost \$9,000 worth of needed supplies, including trash bags, toilet paper, gloves, litter sticks, water trailer and an ATV trailer. These supplies enabled the staff to pick up trash related to illegal immigrant travel within the field office boundaries.

SFO Partnership Reports not found elsewhere in FY2008 Appendices:

The Malpai Borderlands Group

The Malpai Borderlands Group (MBG) worked to fix damaged fences left by illegal immigration traffic. MBG had problems finding reliable contractors and employees to pick up the trash left behind by illegal immigration. The funding for this agreement will be carried over to the next fiscal year.

BLM Colorado River District

The Colorado River District administers three field offices: the Yuma Field Office (YFO), Kingman Field Office, and Lake Havasu Field Office. The District office was funded \$20,000 for law enforcement support. Details and photographs and projects are provided in Appendix C. The YFO experiences significant impacts from smuggling and illegal immigration including fire starts, abandoned vehicles, trash, and habitat degradation.

Yuma Field Office

The YFO was provided \$81,000 in FY2008. YFO continued to emphasis restoration along the Colorado River, abandoned vehicle removal, and cleanup of public lands

Restoration: BLM staff and a contracted 7-person crew planted 289 willows and 128 cottonwoods within a 5-acre area along Lower Colorado River in the Paradise Cove area. The trees replaced previous plantings that had not survived and expanded the restoration area. Temporary irrigation and protective structures were installed for each tree to increase their survival rate. The site is a high traffic area for illegal border incidents and has been subjected to several wildfires. There was another wildfire adjacent to the restoration area this year. Fortunately, the restored area was not affected by the wildfire.

- 5-acre area replanted with willows and cottonwoods

The restoration site is adjacent to a wetlands area where the City of Yuma has invested considerable work to improve riparian habitat and provide recreation opportunities for the community. Law enforcement, including the Border Patrol, BLM, Yuma County Sheriff, and City of Yuma, has increased their presence in the vicinity of the restoration area.

As of this report, the cottonwoods and willows have approximately a 90% survival rate, and the trees are currently 5 feet tall. The trees have survived the summer and if they are irrigated on a regular basis, there is a high probability that they will reach a size where irrigation is not needed for the trees to reach maturity.

Since the inception of the restoration project, 5.6 acres have been planted with native vegetation. A total of 1070 trees have been planted with a survival rate of 63% (674 trees survived). Ground water depth is a key factor for tree survival. On a lower area where the ground water was more accessible, there was a 90% survival rate. At a slightly higher elevation where the ground water was deeper, there was a 40% survival rate.

Tree mortality at the lower elevation was usually due to rabbits and beavers. Protection measures (caging and tree protectors) were improved as a result. An irrigation system has also been installed and improved in the area to enhance the survival rate. Irrigation will be withdrawn from individual trees as they reach sufficient size to reach maturity on their own.

In FY 2009, the restoration area will be expanded by 1.3 acres. There will be added efforts to increase tree survival rates. The efforts will include earlier tree planting in January and a deep pipe irrigation technique where pvc pipe will be buried at a 1-foot depth at each tree to improve water availability for the root system and to reduce evaporative water loss.

Abandoned Vehicles: Reported as stolen, three abandoned vehicles were removed and a fourth abandoned smuggling vehicle, was removed by the owner's insurance company. Abandoned vehicles are being removed promptly after being discovered to prevent the environmental damage and substantially increased removal costs that are incurred after a vehicle is burned. In recent years, abandoned vehicles that were not promptly removed were burned by unknown persons.

- 3 abandoned vehicles removed

Cleanups: BLM staff and an SCA intern coordinated cleanups at 9 sites where illegal border activities occur throughout the Yuma Field Office. Some of these sites are adjacent to remote wilderness areas that are more than 50 miles north of the border. BLM staff, partners and volunteers (photos below) removed more than 31.6 tons of trash from these sites in FY 2008.

Trash that included discarded clothing and blankets, empty water jugs, and numerous pieces of carpet used to hide tracks (photos below) from DHS Agents was removed.

- Cleaned up 9 sites resulting in more than 31.6 tons of trash

Law Enforcement: Labor funding for law enforcement activities provided by the borderlands project ensured that required security was available for staff engaged in border mitigation projects. Law enforcement has also stepped up efforts to prevent and decrease illegal border activities by increasing patrols in problem areas. Partnering with

other law enforcement agencies continues to improve public safety along the border and throughout the YFO.

YFO Lessons Learned: Tree survival rates continue to improve at the restoration sites. It is important that maintenance for these sites is provided until planted trees can reach a size where they can achieve maturity on their own. Methods are still being sought to further improve tree survival rates.

Hiring a volunteer coordinator was a great improvement for cleanup projects. Many individuals, groups, and other government agencies are willing to help with the cleanup projects with a little support from the BLM. Efforts are being expanded with partners and volunteers to win back a cleaner and safer environment. It is hoped that soon the community can safely return to some areas that were popular for hunting and other recreation activities.

There were no vehicles that were burned this year. The prompt removal of abandoned smuggling vehicles has helped to keep removal costs in check.

U.S. Fish and Wildlife Service (USFWS)

FWS Leslie Canyon National Wildlife Refuge (NWR) and San Bernardino NWR

The BLM Safford Field Office continued the interagency agreement with FWS at San Bernardino and Leslie Canyon NWR *for \$10,000 in FY2008*. See Appendix E for additional details, photos and costs.

Trash Removal, April –September 2008, various locations on SBNWR and LCNWR in Cochise County, AZ, student intern and refuge personnel removed trash from layout and other sites.

- Picked up an estimated 0.18 tons of debris that had been discarded on the two refuges, a decrease over past years.

Wildlife Friendly Vehicle Barrier Installation, April – Sep. 30, 2008, international border along the south boundary of SBNWR in Cochise County, AZ.

Narcotics smugglers have traditionally cut the international border fence and driven through the “protected” SBNWR, using this public land as a route to transport drugs into the United States. To help prevent this illegal and destructive activity, horizontal railroad iron was welded onto a concrete-filled, steel, bollard-style vehicle barrier at gaps remaining along 4,000-feet of the accessible south boundary of the refuge.

- Completed 4,000 ft of vehicle barrier

Fence Repair, April – Sep. 30, 2008, various locations on SBNWR and LCNWR in Cochise County, AZ;

Illegal immigrants crossing through SBNWR/LCNWR and adjacent properties often cut and/or damage fences and gates to accommodate their trespass across public lands. Throughout the year, refuge personnel inspected and repaired an estimated eight miles of fence line on the two refuges. Both volunteer positions and a temporary laborer position were filled to conduct much of the repair work.

- 8 miles of fence line inspected and repaired

Monitoring Impacts to Wildlife from Illegal Border Activities, April – Sept. 30, 2008, various locations on SBNWR and LCNWR in Cochise County, AZ.

Illegal immigrants crossing through the refuges impact water quality, wildlife populations, and other habitat conditions in these “protected” areas. During 2008, studies were conducted on the refuges to help monitor wildlife population changes resulting from the impacts of illegal immigration and smuggling activities. One temporary biologist was hired during the project period to conduct monitoring on the impacts to habitat and avian wildlife, using a 50:50 match of FWS funds and mitigation funding.

FWS Buenos Aires National Wildlife Refuge

The BLM TFO and Buenos Aires National Wildlife Refuge (BANWR) signed an interagency agreement to fund continued efforts in 2007-2008 to mitigate damage to the refuge by illegal border crossers. This is the third round of interagency funding in the past three years, to be used to offset natural resource damage caused by illegal border crossers. This funding was spent between Sep. 1, 2007 and Dec. 31, 2008. Approximately \$10,500 was received. The funding enabled:

- towing of abandoned vehicles
- hiring of 12 weeks of work by two habitat restoration interns from the Student Conservation Association (SCA)
- additional interagency funding supplied 10 work days by the Southwest Conservation Corps (SCC).

BANWR stretches from the U.S./Mexico border to twenty-five miles north of the international boundary. Border Patrol estimates that several hundred to one thousand undocumented aliens cross the border every day into the refuge. In the year 2001, GIS analysis and aerial imagery revealed 1,314 linear miles of UDA trails on the refuge, including 117 individual trail crossings at the 4.5-mile international border. This translates to 280 acres of complete denudation, which of which is in fragile and valuable riparian habitat. The amount of trash (litter, clothing, water bottles, human waste) is unsightly to visitors and unsafe for wildlife.

Before interagency funds were available, 20 abandoned vehicles needed to be removed. Some vehicles are blackened by being set afire, and many are in remote and off-road areas. Removal is difficult and costly.

Towing of abandoned vehicles: cost = approximately \$3,500

Average cost for removal per vehicle is \$750. These disabled, often burned or rolled-over vehicles typically must be extricated from remote and rugged areas or washes.

- Several vehicles were removed in fiscal year 2007.

Student Conservation Association: = two 12-week interns at a cost of approximately \$7,000.

Two interns worked a 12-week volunteer period from Oct. 1 to Dec. 22, 2007. Labor is volunteer, but funding covered transportation to the refuge, lodging en route, and food expenses during their stay. Most duties involved fence repair and litter cleanup.

The SCA's repaired fence close to the border, where barbed wire fence is damaged or cut by illegal immigrants. Some fence removal was performed to clear the landscape of old ranch fence.

The interns cleaned up litter along illegal trails and in lay-up sites. These sites are typically cluttered with clothing, backpacks, food cans, and other debris when the immigrants change clothes and discard their belongings, prior to getting a pre-arranged vehicle ride or continuing their journey on foot.

The interns also worked with biology interns on projects to analyze damage to vegetation caused by immigrant traffic.

Occasional duties included animal husbandry for the endangered masked bobwhite quail, a species which is captive bred on the refuge for reintroduction efforts.

Southwest Conservation Corps: Nov. 5 – 15, 2007

The SCC provided valuable work on fences. In 10 work days the crew repaired barbed wire fence that had been damaged or cut by illegal immigrants. Broken fence allows cattle to enter from Mexico, adding to the landscape damage caused by immigrants. The crew also removed a large amount of barbed wire fence left over from ranching days. This helps the movements of deer and pronghorns and eliminates an obstacle in which they can become fatally entangled.

The crew was well-organized and was facilitated by capable SCC leadership. The two SCA interns assisted the group in the work each day and helped guide them to the work sites.

- Along a 4.2 mile length of fence at Garcia Road, the crew replaced 300 feet of barbed wire and made a great many repairs to broken areas. This fence parallels

the international border and is often damaged or severed. Maintenance of this fence helps contain cattle that come through or around the border fence.

- At a second site near an immigration route, the crew repaired ½ mile of fence and removed 1500 ft. of coiled fence on the ground.
- At a third site, ¾ miles of old fence was removed.

Cabeza Prieta National Wildlife Refuge

Cabeza Prieta NWF continued its partnership with the BLM Phoenix District. Funds were obligated too late in FY2008 for projects to be initiated and completed on-the-ground. These efforts will be reported in the FY2009 Southern Arizona Project Report.

U.S. Forest Service

Coronado National Forest

The Coronado National Forest (CNF) encompasses approximately 1.8 million acres with 30 miles of the US/Mexico border on two districts, Nogales and Sierra Vista. The impacts of illegal border activities include damaged fences, miles of unauthorized foot trails, miles of unauthorized roads, soil compaction and erosion, trampled vegetation, and piles of trash and human waste. Trespass cattle enter CNF through the damaged fences, wildfires are started by UDA's, and abandoned mines are used as hideouts, camp sites, and caches.

This agreement provided funding in the amount of \$10,000 to address these impacts. Five cattle guards were purchased for \$10,000, under this agreement by the Nogales Ranger District. The cattle guards have been purchased and are on site. The Forest Service engineering road crew will install these between December 2008 and February 2009.

- 5 cattle guards were purchased

The cattle guards were purchased to assist CNF in managing the grazing rotation. The cattle guards allow the Forest Service and permittees to manage rangelands more efficiently and effectively. These cattle guards will replace gates that are commonly left open or destroyed by illegal immigrants, drug traffickers, and the general public allowing cattle to enter pastures not open to cattle.

Cochise County

The BLM Gila District Office, Safford Field Office worked with Cochise County through an assistance agreement to remove undocumented immigrant trash in the county utilizing the Solid Waste Department and volunteer groups.

Cochise County picked up approximately 8 tons of illegal immigrant trash along roads and in remote areas of Cochise County. There were 14 different events in which the county organized with local members of the community to pick up the garbage. The groups of people included local Boy Scout troops, girl softball teams, and local hiking clubs. With each event, the County provided supervision, supplies (trash bags, pickers, gloves) and transportation to the local landfill to dispose of the trash properly.

- During 14 events, 8 tons of trash removed

Pima County

No report received as of December 2008. See Arizona Game and Fish Department for coordination with Pima County of Hunters Who Care events.

The Tohono O'odham Nation (TON)

The TON received \$24,966 in FY2008 at the end of the fiscal year. That work will be reported in the FY2009 report.

The Pascua Yaqui Tribe

BLM signed an assistance agreement with the Pascua Yaqui Tribe focused on Tortuga Ranch. This ongoing project resulted in a heavy duty cleanup of littered areas on tribal lands. The December 2007 cleanup on Tortuga Ranch was done through a contractor and local oversight. The Tribe did a one-time, heavy duty cleanup of "trouble" areas that cover some of the most vast and difficult areas to reach on the ranch. The areas done are the trail sometimes known as the "Western Electric Power Lines" trail or "The Eloy Highway" due to the heavy illegal immigration traffic, the levee area and the four corners.

This project was a one-time large cleanup of nine different points measuring a total of 8.22 miles long, which lasted approximately one and a half weeks to complete. Five trips were made to the landfill, and the workers dumped in total an approximate amount of 14 tons of garbage, using 10 boxes of 72 bags each. Each bag carried approximately 40 lbs per bag which totals approximately 28,800 lbs of trash. At approximately 2000 lbs per ton, the project coordinators estimate a total of 14 tons of trash cleaned up and disposed from Tortuga Ranch.

- Disposed of 14 tons (28,800 lbs) of trash from Tortuga Ranch

Late in FY2008, an additional \$19,000 was transferred to continue this program and will be reported in FY2009.

Arizona Game and Fish Department

The Arizona Game and Fish Department (Department or AZGFD) enhanced their already successful program through additional equipment and supplies, aerial mapping to plan events, and expanded partnerships. AZGFD is particularly effective in using volunteers who already have an awareness of the outdoors and recognize the degradation occurring on ranchlands in southeast Arizona. These groups have shown a continual desire to transform the landscape back to its natural condition. In FY2008, two components dominated the AZGFD program: mitigation through cleanup events and installation of cattle guards.

Mitigation by Clean-Up Events: AZGFD clean up events are an expansion of regular duties for local Department Wildlife Law Enforcement and Landowner Relations Program personnel who implement the existing "Adopt-A-Ranch Program". Adopt-A-Ranch is an AZGFD tool to help connect concerned hunters and outdoors-minded people with ranchers and landowners with needs on their properties. The *Goal* is to work together on volunteer projects, to stimulate a cooperative *Win-Win* result for landowners, volunteers, wildlife, and rangeland habitat. Adopt-A-Ranch Projects throughout the state cover a wide range of rangeland issues from trash removal, to road and trail maintenance, water projects, to making fences wildlife friendly.

AZGFD considers the latest UDI trash cleanup events to be very successful: goals are being achieved at each clean up event. Through additional equipment and supplies, volunteers stay safer during their experience. Direct contact with UDI trash could pose health risks from illnesses that might be contracted from this garbage. In addition, the new equipment that this funding has help purchase helps limit potential contact volunteers might have with poisonous reptiles and painful spines from cactus and thorn bushes. The equipment has helped reduce overall fatigue due to less bending and carrying of heavy loaded bags. To date, there have been no reports of injury or sickness, or snakebites attributed to these cleanup activities.

Attendance of these volunteer groups is usually depended on several factors including conflicts with scheduled: hunting seasons, holiday and long weekend commitments, local and national sporting events, and unwillingness to attend during poor weather.

Hunters Who Care: Two Clean Up Events Held in Fiscal Year 2007-08

AZGFD expanded the "Hunters Who Care" cleanup events into: Two annual, 2-day cleanup events starting in 2006 resulted from BLM funding. The Department coordinated efforts with Pima County Natural Resources, Parks and Recreation (Pima County), in conjunction with Southern Arizona Hunters Who Care and held a joint clean-up event on State Trust (STL) and Pima County lands near Arivaca, on December 8- 9, 2007. The Department coordinated with these same partners for a clean up in the Altar Valley on March 15-16, 2008.

December 2007 near Arivaca AZ: Clean up focused on small ranch roads and intermittent stream channels, mostly on STL several miles north and south of Arivaca

Road from milepost 5 to 20 along Arivaca Road. This area is a mix of STL leased lands and county property (Rancho Seco), the Marley Ranch (private and STL lease), and the Sopori KX Ranch (private and STL lease). Information on trash locations was provided by area ranchers, hunters, and AZGFD law enforcement personnel familiar with back roads and washes in these remote ranchlands.

Over 68 volunteers participated in the event along with 14 AZGFD and Pima County staff. Unfortunately, heavy rain doused the event on Saturday morning and attendance was unusually low for the first day. Volunteers targeted known “lay-up sites” and commonly used trails, along roads and near livestock water sources.

On Sunday December 9th 2007 an effort was made to focus on a site located on the Sopori KX Ranch, south of Arivaca Road. There was one wash approximately ½ mile long and 25 feet wide covered entirely in trash (see Photos). Participants included members of: Southern Arizona Hunter’s Who Care, Safari Club International, the Boy Scouts of America, Pima County, and others. This one wash was cleaned by over 25 dedicated volunteers, for a period of four hours.

The joint effort of this two-day event yielded three dumpsters of UDI trash, or approximately 120 cubic yards.

- Two days of cleanup yielded three dumpsters of UDI trash, or approximately 120 cubic yards.

Use of Aerial Mapping for cleanup planning. AZGFD utilized BLM funding to fly a pre-cleanup planning flight (for the first time) in Department Aircraft over the northwest section of the Altar Valley on March 5th 2008. Three Department personnel used hand held GPS units, while flying over the Altar Valley, for approximately two hours. AZGFD visually located and documented thirty-one large layup sites for clean up. A “large site” the site needed to be greater than 50 meters in one dimension. Sites were usually polygons, some up to 150 meters long, but others were linear following trails. Site shape is often influence by shade or cover in the vicinity. AZGFD gathered enough data in this one flight to pinpoint on the ground locations of high-density areas of UDI trash accumulation. See Appendix I for maps and more information.

These locations enabled volunteers to travel directly to highly polluted areas, using their valuable time more efficiently than ever before. The Department will be able to use this data on several more cleanups over the next few years. Volunteers were only able to clean six large areas in the two-day period March 15-16, 2008. These sites will likely persist, as patterns for immigration change very little year by year, but usage by immigrants is influenced by weather conditions, available cover from the elements, and law enforcement activities.

March 15-16, 2008 Results near Three Points AZ: Approximately 44 volunteers participated in this two-day event held in the Altar Valley, near Three Points AZ, cleaning up six large areas.

Installation of Cattle Guards to Mitigate UDI Impacts to Ranches: AZGFD worked with local ranches to reduce persistent damages from UDI and drug traffickers' vehicles to fences and gates by replacing swinging gates with cattle guards in key locations. In FY2008, efforts focused on the Marley Ranch which has been facing increasing impacts to ranch resources due to motorized UDI traffic and enforcement activities on and near the ranch. Cattle from the Marley Ranch were regularly escaping their designated pastures through downed fences and broken gates, because gates were regularly being driven through, rather than being opened and closed. Vehicles traveling at high speeds across the ranch transporting UDI's and/or contraband, or vehicles being pursued by law enforcement in these remote situations, often fail to yield, and often drive through fencing and gates, rather than stop and open and close ranch gates and then face arrest. These cattle escaping onto nearby properties were not only a nuisance to ranchers, who must gather cattle each time, but they were being told they would be fined for cattle found in trespass on Refuge property.

AZGFD coordinated efforts with the Buenos Aries National Wildlife Refuge (BANWR) and Marley Ranch representatives. In the late summer of 2008, the Marley Ranch entered into a five-year Stewardship Access Agreement with the Department that guarantees public access through the Ranch's Private lands (State Trust Lands have access when Private is open to public).

The Department utilized funding through this grant to provide the Ranch with \$10,000 for the purchase and installation the cattle guards in the eight needed locations. AZGFD obtained sixteen used 7'X7' cattle guard grates from the AZ Department of Transportation, and delivered these to the Ranch along with other materials such as lumber, hardware, and cement to install the cattle guards. The Marley Ranch and AZGFD obtained necessary clearances with AZ State Land Department and State Historic Preservation Offices, for the placement of the guards.

- In September 2008, eight cattle guards were installed on Private and STL property within the Ranch boundaries (See Appendix I for photographs and maps of locations).

Gila Watershed Partnership

In partnership with the Safford Field Office, Gila BLM District, the Gila Watershed Partnership (GWP) completed efforts to clean up UDI sites in the Gila River watershed.

Greenlee County Buzzard Roost Undocumented Immigrant (UDI) Camp Cleanup, Jan. 2007 through Nov. 14, 2008, Greenlee County. GWP spent considerable efforts to clean up an illegal immigrant camp. An elderly man had permitted UDIs to stay in the area. Multiple shelters, debris and abandoned vehicles were removed. Due to the remoteness of the area and its difficulty to patrol, UDIs repeatedly used the area requiring further cleaning.

- GWP dismantled one UDI camp and removed debris, abandoned vehicles and shelter materials.

Gila River UDI Clean up in association with the Safford Public Works. A number of UDI camps along the Gila River were identified and GWP is removing the debris. In the first two sites, GWP used City of Safford equipment to remove a great deal of the debris. In the last area, a prison crew removed garbage, some of which was half buried. GWP filled 14 large bins with debris.

- Three Gila River camps were cleaned up removing over 14 large bins of debris.

Part II: The Southern Arizona Project to Mitigate Impacts of Illegal Immigration and Smuggling: Assessing the Extent and Impact of the Damage

How Big Is the Problem? What is known about the Extent? The borderlands and the impact zone is over 100 miles north of the border, and is continuing to edge northward. Almost 86% of the Mexico- Arizona border miles consist of federal and tribal lands. Of the 21.5 million borderland acres, about 3.7 million are state trust land, 4.2 million are private land, 35,000 acres are other county and city land, some 2.9 million are Indian lands, and the remainder are managed by federal agencies---USFS 1.7 million, BLM 3.7 million, Department of Defense (DOD) lands 2.8 million, USFWS 1.7 million, NPS 442,000 acres, and the Bureau of Reclamation 53,000. [Source: *Arizona Coordinated Plan*, 2004, Borderland Management Task Force]

After six years of the Southern Arizona Project, a great deal of descriptive and anecdotal information exist about the amount of damage on lands in southern Arizona, but no comprehensive or scientifically-designed inventory has been completed to define the extent of the issues. In prior reports, the estimated figure provided for trash accumulation in southern Arizona has been stated as 25 million pounds based on the simple formula that over 300,000 immigrants have been arrested and each UDI carries an average of 8 lbs of trash.

Some specific areas or units have had a more in-depth review. The Buenos Aires NWR was subject to GIS analysis and aerial imagery studies in 2001. According to BANWR, that analysis revealed 1,314 linear miles of UDA trails on the BANWR, including 117 individual trail crossings at the 4.5-mile international border. This translates to 280 acres of complete denudation, consisting of fragile and valuable riparian habitat. The miles of trails and acres of denudation have increased since that year.

Linear transect data are also available for the Cabeza Prieta NWF and these show increasing illegal trails and routes across the wilderness. The Tohono O'Odham Solid Waste Division is using GPS locations to re-visit and monitor 134 sites and to plot the locations of over 200 abandoned vehicles. Some GPS tracking has occurred on the BLM IFNM and individual locations have been plotted on maps for both areas cleaned up and needing work. The Border Patrol also has extensive maps showing trails and lay-up sites.

While data exist, no systematic analysis or compilation has been generated nor have the hundreds of cleaned-up locations and rehabbed trails been entered into a database, although some are being mapped. In May 2008, the Borderland Management Task Force in conjunction with BLM and the Arizona Department of Environmental Quality (ADEQ) formed a work group to address several related questions:

- What is the state of knowledge (inventories, studies, current efforts) to identify or to study impacts to lands and resources?
- What is the extent and nature of the impacts? For example, litter, infrastructure, and what resources must be applied to recovery these lands?
- What are the impacts of the damages to natural and cultural resources? For example, what are the impact of roads and trails to fragmenting habitat.
- What, if any, are the health risks associated from burned vehicles or trash accumulations?

The Assessment Project may produce results in FY 2009. No assessment funds have been made available for a comprehensive and systematic look at the problem. The ADEQ in partnership with the Environmental Protection Agency (EPA), with the BLM and the BMTF, has begun at least phase one, to set up an interactive website and compile existing information.

In brief, while hundreds of Southern Arizona Projects have been completed removing over a million pounds of trash and over 300 abandoned vehicles and 3,000 abandoned bicycles, and have repaired miles of fence and rehabbed roads or obliterated illegal trails----it is not possible to state what percent of the problem has been successfully tackled.

Assessing the Costs of Mitigating the Damages from Illegal Immigration and Smuggling

Similarly, the dollars spent for the Southern Arizona Project have been allocated and tracked by specific project codes to ensure results on the ground. But the cost per ton of litter or per abandoned vehicle removal cannot be calculated with any degree of confidence. Agencies and partners are leveraging the funding provided by BLM with in-house labor and materials and through recruiting hundreds of volunteers. This adds to the benefits, but makes calculations more difficult.

One way of looking at these projects is through the “level of effort” reporting that agencies sometimes provide. For example, in FY2007, Pima County reports, as a conservative estimate of time and resources spent on their partnership project that would match the BLM funding as:

	Volunteer time *	PC Staff*	Mileage*
Last report Period	1,390 hrs	2,150 hrs	12,000 miles
Current FY2007 Period	<u>2,650 hrs</u>	<u>125 hrs</u>	<u>8,195 miles</u>
Estimated Value	\$36,360	\$23,000	\$8,078 estimated

Using charges at \$.40/mile, \$9/hr for volunteers/summer youth crews and \$ 20/hr for Pima County staff.

Pima County also provides levels of efforts for 9 clean-up locations:

<u>Property</u>	<u>Volume of Trash</u>	<u>Fence Repairs</u>	<u>Man-hours Effort</u>
Canoa Ranch	3- cu/yds	2- 50 ft	32 hrs
Bar V Ranch	10- cu/yds	5- 150 ft	40 hrs
Empirita Ranch	10- cu/yds	10- 500 ft	120 hrs
Kings 98 Ranch	5- cu/yds	0	20 hrs
Old Hayhook	0	0	10 hrs
Rancho Seco	120- cu/yds	4- 100 ft	40 hrs
Buckelew Ranch	2- cu/yds	0	20 hrs
Black Wash	0	0	0
Cienega Creek	5- cu/yds	5- 150 ft	80 hrs
Project Coordination			320 hrs

Levels of efforts may be deduced from many project descriptions provided in the Appendices. For example: The Phoenix District description for the Vekol Valley Trash Removal and Illegal Smuggling Route Restoration is typical. A 6-member SCC crew, 3 SCA members plus 2 park rangers worked over a 10-day period resulting in 5 bags of trash, 2 bikes, and 12 illegal routes restored (totaling 2 miles). These routes required heavy rehabilitation work.

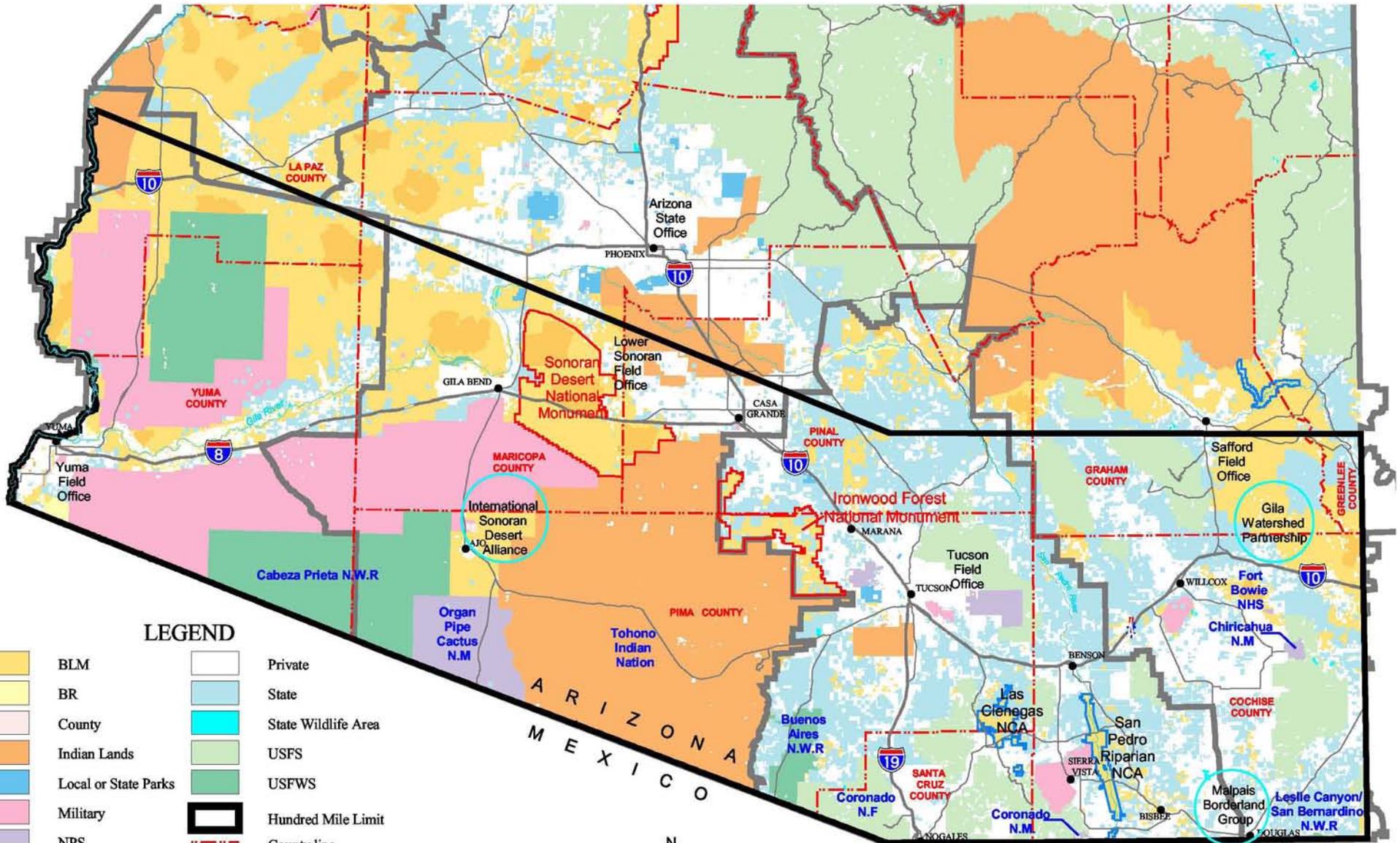
Similarly the BLM IFNM reports on a trash-removal project at the Ajo site in the Roskrige-Recortado Mountains where a 15-SCC crew, 2-member SCA crew and 3 others worked 806 volunteer hours in 5 days. The crew members hiked on foot trails 0.5 to 1 miles from the vehicle staging area, picked up trash and hiked back. This was repeated until the crew removed 606 bags (approximately 13,332 lbs.) of trash, including 3,679 migrant backpacks.

Determining the Impacts of Damage to Natural and Cultural Resources.

Funding has not yet been made available for studying the impacts of trash, trails, damaged and eroded soils, etc. on natural and cultural resources. Noted above, the BMTF/BLM/ADEQ/EPA Assessment Project has begun to address the issue of impacts.

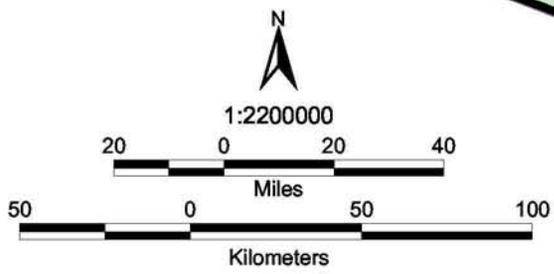
The San Bernardino/Leslie Canyon NWR has begun monitoring studies for wildlife population changes resulting from the impacts of illegal immigration on these refuges. Most agency specialists would like to link problems such as the increasing number and miles of illegal roads and trails to habitat fragmentation and how this in terms impacts larger and smaller species of mammals and other species. Just as the Southern Arizona Project success has resulted from expanded partnerships bringing resources to the issues, completing impact studies will require attracting partners such as the United States Geological Survey, universities, and non-profits organizations, and the Department of Homeland Security.

FY2008 Summary Prepared by: Shela McFarlin, BLM, Arizona State Office



LEGEND

- | | | | |
|--|----------------------------------------|--|-----------------------------|
| | BLM | | Private |
| | BR | | State |
| | County | | State Wildlife Area |
| | Indian Lands | | USFS |
| | Local or State Parks | | USFWS |
| | Military | | Hundred Mile Limit |
| | NPS | | County line |
| | Non-governmental Organization Projects | | BLM Field Office Boundaries |



Caution:
Land ownership data is derived from less accurate data than the 1:24,000 scale base map. Therefore, land ownership may not be shown for parcels smaller than 40 acres, and land ownership lines may have a plotting error of 1/16 to 1/8 inch.

No warranty is made by the Bureau of Land Management of use of the data for purposes not intended by BLM.

The Arizona State Land Department and Bureau of Land Management make no warranties, implied or expressed, with respect to information shown on this map.

SOUTHERN ARIZONA PROJECT FISCAL YEAR 2008 - PHOTO HIGHLIGHTS

UDI Site Cleanup

Bureau of Land Management (BLM) Ajo site, Roskruge-Recortado Mountains

Before



After



Before



After





BLM Yuma Field Office Clean-Ups

Trash that included discarded clothing and blankets, empty water jugs, and numerous pieces of carpet used to hide tracks (photos below) from DHS Agents was removed.



Carpet pieces used to hide footprints



Removing discarded blankets



An area after a clean-up



Volunteers sign in for a clean-up

Buenos Aires National Wildlife Refuge:

Litter Problem



SCA Melissa Bowers with border litter



Pascua Yaqui Tribe
Tortuga Ranch Clean-Up



Before



Under clean up



Restoration

BLM Yuma Field Office Restoration Project, 5 acres along Colorado River



Planting Crew



Planted Trees

Road Rehabilitation Projects

BLM, IFNM, West Silverbell foot trails and smuggling roads

Before Rehab



After Rehab



Before Rehab



After Rehab



BLM, Phoenix District, Vekol Valley

Illegal Route Bypass Rehab (Before)



During Rehab Work



Vekol Road Illegal Smuggler Route Restoration before (left) and after (right)



Fencing, Barriers and Protection:

BLM Phoenix District projects



Roy and the SCC crew put up fencing at the end of Smith Road (8022).

San Bernardino/Leslie Canyon Projects:



Wildlife friendly vehicle barrier

SB/LC NWR

Photo F (Damaged Border Fence)



Photo G (Damaged Border Fence & UDA Trash)



Abandoned vehicles and bicycles

BLM, Phoenix District, Sonoran Desert National Monument



Abandoned vehicles found in the Sand Tank Mountains

