

NATIONAL PARK SERVICE
REPORT OF WILDLIFE PROTECTION NEEDS ASSESSMENT

Introduction

The Servicewide Natural Resources Assessment and Action Program Report (1988) found the loss of wildlife due to poaching to be a major natural resources issue facing the National Park Service (NPS). Poaching was the seventh most often reported source of threats to the resources in the National Park System out of over one hundred. In the spring of 1991, a Wildlife Protection Needs Assessment was sent to each Region of the National Park Service for forwarding to field units for response. The purpose of the assessment was to identify the magnitude of the wildlife protection problem and to more clearly define what the parks need in order to provide adequate protection to the wildlife in the National Parks.

The assessment contained four sections. Section I assessed the current poaching situation, Section II assessed the current wildlife protection program, Section III assessed wildlife protection needs, and Section IV assessed the violation of game laws. Section IV was to be answered only by parks where hunting is conducted as an authorized activity. A Servicewide database on wildlife protection has been created and the results from the needs assessment have been entered into the database. This report discusses the results of the assessment on a section-by-section basis.

Overview of the Current Poaching Situation

The Wildlife Protection Needs Assessment showed that the number of poaching related incidents has steadily increased each year for the past three years. Individual parks reporting the largest number of poaching related incidents for 1990 included Biscayne National Park (425 incidents), Great Smoky Mountain National Park (296 incidents), Everglades National Park (290 incidents), Canaveral National Seashore (150 incidents), and Shenandoah National Park (133 incidents). However, it is clear from the replies to the assessment that the number of incidents detected is a function of the size of the park's protection staff and the amount of time which can be allotted by the staff to patrol the backcountry and to perform wildlife protection duties. It should not be assumed that because a particular park has a lower number of reportable incidents that it has a correspondingly lower problem with poaching. Yellowstone National Park, for example, estimates that for every poaching case they know about, there are thirty cases that go undetected.

One hundred and five different species of wildlife were reported in the needs assessment as being poached in units under the protection and management of the National Park Service. Forty-eight of the species reported being illegally harvested are mammals, including black bears, grizzly (brown) bears, polar bears, wolves, moose, bobcat, mountain lion, bighorn sheep, antelope, bison, caribou, lynx, muskoxen, harbor seals, sea otters, and the Steller sea lion.

In addition to mammals, sixty-two parks reported twenty-seven avian species being poached. Two endangered species, the peregrine falcon and bald eagle, were the second and third most reported of the birds being poached. Eighteen parks reported reptiles and amphibians that are being poached. This includes alligators, green sea turtles, loggerhead sea turtles, hawksbill sea turtles, gopher tortoises, desert tortoises, and rattlesnakes. Twenty-three parks reported over twenty-six different aquatic species being poached, including trout, salmon, halibut, walleye, blackbass, white sturgeon, lobsters, crabs, clams, conchs, whelk, groupers, snappers, red drum, snook, mullet, mussels, owl limpets, and abalone. Only one invertebrate, the endangered Schaus swallowtail butterfly, was reported being poached.

The assessment showed that twelve species which are Federally listed as threatened or endangered are being poached within twenty-four units of the National Park System. The endangered species are the bald eagle, peregrine falcon, hawksbill sea turtle, California brown pelican, and the Schaus swallowtail butterfly. Although not confirmed as being poached on National Park Service lands, the Florida panther has been documented as being poached outside of Big Cypress National Preserve and Everglades National Park. See Chart I for a listing of endangered species being poached by park.

Threatened species which were reported as being poached are the Steller sea lion, grizzly bear (in the 48 contiguous states), spotted owl, greenback cutthroat trout, green sea turtle, loggerhead sea turtle, and desert tortoise. In addition, the gopher tortoise, listed as threatened in portions of its present distribution, is being poached in a park outside the area where designated as threatened. Chart II shows by park the species of wildlife which are Federally listed as threatened and which are being poached.

Poaching is suspected to be a factor in the decline of at least twenty-nine species of wildlife (see Chart III). Although not all of those species are listed species, the declines may represent an impact on biological diversity. Conditions such as poaching that reduce numbers or increase unnatural stresses can threaten the viability of a wildlife population. Significantly, the assessment showed nineteen species for which poaching may lead to their extirpation (see Chart IV).

Black bears are the species most frequently reported for which poaching is suspected to be a factor in the decline of the species. The poaching of black bears has been increasing dramatically in recent years due to the market for bear gall bladders in the oriental wildlife parts trade. The gall bladders, as well as bear paws, are sought for medicinal purposes. Twenty-six parks reported the poaching of black bears. Nine parks reported that poaching was suspected as a factor in the decline of the black bear populations, with two of those parks reporting that the illegal removal of black bears from the populations may result in the extirpation of the species. While it is estimated that black bears can tolerate an annual hunting "harvest" of no more than 20 percent, evidence from a covert poaching operation has revealed a kill rate at well over 40 percent for black bears in two Appalachian parks. In addition, eleven parks reported the poaching of grizzly (brown) bears which are listed as threatened in the 48 contiguous states.

Four parks reported poaching as possibly leading to the extirpation of wolves. Two of those parks also reported the decline of wolverine due to illegal harvest, with possible extirpation of the species from one of the parks. Other mammals being removed from park ecosystems by illegal means to the extent that poaching may be a possible factor in the decline of the species include moose, bobcat, fisher, marten, mink, bighorn sheep, and the threatened Steller sea lion.

Overview of the Current Wildlife Protection Program

One thousand two hundred and thirty-two employees were reported to have been involved in wildlife law enforcement activities Servicewide in 1990. For those employees, there was a Servicewide average of fifty-eight hours per year per employee, or less than 3% of the average work year per employee, which was spent on those activities. Five hundred thirty-four employees were paid an average of nineteen hours of overtime in 1990 for performing wildlife protection duties.

Although most poachers are charged with violation of 36 CFR, other laws used in 1990 in descending order from those most reported being used to those reported least used were state game laws, 16 U.S.C., the Migratory Bird Treaty Act, and the Lacey Act. Also used, but in only a few cases, were the Bald Eagle Protection Act and the Endangered Species Act. The assessment did not include the Marine Mammal Protection Act, which will be added to future assessments.

Property was forfeited in connection with poaching in approximately half of the parks which reported arrests for poaching. Approximately one fourth of the parks which responded to the assessment reported that they have used covert operations

in the investigation of poaching. Approximately half of the parks reported some type of public information program on poaching. This included signs, information handed out at entrance stations and Visitor Centers, messages in interpretive programs, posters, press releases, Park Watch Programs, park newspapers, and radio programs. Several parks utilize press releases on offenses and arrests. Several utilize State reward systems, as well as State Game Agency poaching reporting hotlines. Several parks have their own reward system.

Overview of the Servicewide Wildlife Protection Needs

Additional personnel with specialized wildlife protection expertise is critical to the success of reducing the poaching of wildlife in the parks. The Wildlife Protection Needs Assessment showed that an additional 209 FTEs are needed on a Servicewide basis to effect an appreciable reduction in poaching (see Chart V).

The assessment also identified forty-two different items of equipment required by the parks in order to curtail poaching (see Chart VI). The items most reported as needed, in order of the number of requests for the item, are as follows:

Night vision devices Overwhelmingly requested by the most number of parks was night vision devices. There were fifty-three requests, some identified as night vision goggles and some night vision scopes.

Remote Sensors The next most requested equipment was for remote sensing devices. There were thirty-two requests for these, including requests for photographic equipment, sound sensors, and ground sensing devices.

Vehicles There were thirty requests for vehicles, including fourteen requests for 4x4s, five requests for unmarked vehicles, and five requests for marked vehicles.

Animal Decoys There were twenty-one requests for animal decoys, including fourteen requests for deer decoys, three requests for elk decoys, two requests for turkey decoys, and one each for antelope and pheasant. Many parks mentioned the mechanized decoys, such as robodeer, which the State game agencies are now using with success.

Boats There were seventeen requests for boats.

Radios There were also seventeen requests for radio equipment, including five for secure or encoded radios.

Aircraft There were nine requests for aircraft, in addition to seven requests for funds to pay for flight time. Seven of the nine requests for aircraft came from Alaska. In addition to six

parks in Alaska which identified the need for aircraft, the Alaska Regional Office also identified the need for a Cessna 206 to be stationed in Anchorage and to be used to assist the parks with their wildlife cases. The Needs Assessment has highlighted the special need that parks in Alaska have for aircraft due to the immense geographic area of 54.5 million acres which the Alaskan parks encompass.

Other Equipment Spotting scopes were requested by eleven parks and binoculars by six parks. Many other items were requested by one park or a few different parks. This includes shot residue forensics, radar with a radio receiver, telescopes, camping equipment, camouflauge clothing, infrared and other photography, radio repeaters, firearms, body armor, lap top computers with dBase, telemetry, patrol cabins, horses, boundary fence, and magnetometers.

There were some needs which were not asked for in the assessment, but were identified as important needs by the parks. These include specialized training for NPS field personnel in Wildlife Law Enforcement. Future needs assessments should include an assessment of training needs. The need for intelligence gathering operations was also identified.

Overview of the Violation of Game Laws

This section was answered only by parks where hunting is conducted as an authorized activity in the park. Forty-three parks answered this section. Out of the forty-three parks in which authorized hunting takes place, nine require a park permit in order to hunt in the park. Two of the nine charge a fee for hunting in the park - Apostle Islands National Lakeshore and Cumberland Island National Seashore. Both parks charge a fee of \$10.00 for deer hunts. The deer hunt at Apostle Islands is a black powder muzzle-loader hunt only. Eleven parks have waterfowl hunting blinds in the park, but no fee is charged for the use of the blinds.

Only seven of the forty-three parks in which hunting takes place require hunters to check in with the park staff prior to hunting in the park. An average of 28% of hunters hunting in NPS units are contacted by park staff while hunting in the park. Rangers on the average check the hunting license of approximately 25% of the hunters. They check the weapons and other equipment of an average of approximately 22% of the hunters, and on the average inspect the game taken in the park by approximately 25% of the hunters.

Only two parks reported that it is the National Park Service which establishes the restrictions on hunting in the park (length of season, bag limit, etc.). The State establishes the hunting restrictions in almost half of the parks (19 parks). The

decisions are made jointly between the State Game Agency and the National Park Service in twenty-two areas.

Summary

The poaching of wildlife has been increasing during the past decade as markets for wildlife parts have burgeoned and the trade in wildlife parts has flourished. Articles have begun highlighting the seriousness of the poaching problem and have appeared in **National Parks** magazine, **Readers Digest**, **Audobon** magazine, **Newsweek**, **The New York Times**, **The Washington Post** and **USA Today**. In addition, the National Geographic Society recently produced a special four part television series on poaching in America. Poaching in units of the National Park System was highlighted in the television series and many of the articles. The results of the Servicewide Wildlife Protection Needs Assessment have provided a basis on which to develop a Servicewide program to address this important issue. The results of the assessment were used as the basis for developing a budget request for the FY93 budget. The priority for addressing the wildlife protection problem has been developed based on

- the protection of threatened and endangered species
- the prevention of the extirpation of species from parks
- the prevention of the decline of species in parks

The budget request for FY93 represents approximately one half of the top priority, and eleven percent of the total, wildlife protection needs identified through the Servicewide needs assessment. Additional needs for the protection of plants from illegal harvest and paleontological resources from illegal removal have not yet been assessed but are likely to increase the total needs significantly.

CHART I

Endangered Species Reported Being Poached in Units of the National Park System

Park	Endangered Species
Channel Islands National Park	California brown pelican
Wrangell-St. Elias National Park & Preserve	bald eagle
Yukon-Charley Rivers National Preserve	bald eagle
Yukon-Charley Rivers National Preserve	peregrine falcon
Curecanti National Recreation Area	bald eagle
Lake Meredith National Recreation Area	bald eagle
Lava Beds National Monument	bald eagle
Olympic National Park	bald eagle
Santa Monica Mountains National Recreation Area	bald eagle
Santa Monica Mountains National Recreation Area	peregrine falcon
Norhtwest Alaska Areas	peregrine falcon
Assateague Island National Seashore	peregrine falcon
Yellowstone National Park	peregrine falcon
Zion National Park	peregrine falcon
Padre Island National Seashore	peregrine falcon
Biscayne National Park	Schaus swallowtail butterfly
Fort Jefferson National Monument	hawksbill sea turtle

CHART II

Threatened Species Reported Being Poached in Units of the National Park System

Park	Threatened Species
Olympic National Park	spotted owl
Channel Islands National Park	Steller sea lion
Glacier Bay National Park & Preserve	Steller sea lion
Wrangell-St. Elias National Park & Preserve	Steller sea lion
Yellowstone National Park	grizzly bear
Glacier National Park	grizzly bear
Rocky Mountain National park	greenback cutthroat trout
Fort Jefferson National Monument	green sea turtle
Fort Jefferson National Monument	loggerhead sea turtle
Everglades National Park	loggerhead sea turtle
Kaloko-Honokohau National Historic Park	green sea turtle
Lake Mead National Recreation Area	desert tortoise
Joshua Tree National Monument	desert tortoise

CHART III

Partial list of species of wildlife for which poaching is suspected to be a factor in the decline of the species (does not include species reported by parks as declining due to trophy hunting):

Species	Park(s)
Steller sea lion	Glacier Bay National Park & Preserve Wrangell-St. Elias National Park & Preserve
wolf	Bering Land Bridge National Preserve Katmai National Park & Preserve Voyageurs National Park
wolverine	Bering Land Bridge National Preserve Lake Clark National Park & Preserve
moose	Voyageurs National Park Grand Tetons National Park
black bear	New River Gorge National Recreation Area Voyageurs National Park Crater Lake National Park Bighorn Canyon National Recreation Area Great Smoky Mountains National Park Buffalo National River Yosemite National Park Dinosaur National Monument Shenandoah National Park
Bobcat	Arches National Park Buffalo National River
fisher	Voyageurs National Park
marten	Voyageurs National Park
mink	Chattahoochee River National Recreation Area
weasel	Chattahoochee River National Recreation Area
Rocky Mountain bighorn sheep	Grand Tetons National Park
desert bighorn sheep	Glen Canyon National Recreation Area
pronghorn antelope	Lava Beds National Monument
elk	Redwoods National Park Buffalo National River

Chart III - Page 2

sea turtles (hawksbill, loggerhead, and green sea turtles)	Kaloko-Honokohau National Historic Park Canaveral National Seashore Fort Jefferson National Monument Virgin Islands National Park Padre Island National Seashore
gopher tortoise	Canaveral National Seashore
desert tortoise	Lake Mead National Recreation Area
prairie falcon	Scotts Bluff National Monument
bald eagle	Lava Beds National Monument
osprey	Padre Island National Seashore
turkey	Horseshoe Bend National Military Park Buffalo National River
abalone	Cabrillo National Monument Channel Islands National Park
salmon	Glacier Bay National Park & Preserve
white sturgeon	Coulee Dam National Recreation Area
walleye	Coulee Dam National Recreation Area
queen conch	Fort Jefferson National Monument
fresh water mussels	Mammoth Cave National Park

CHART IV

List of species for which poaching is likely to lead to the loss of the species from the park:

Species	Park(s)
Steller sea lion	Glacier Bay National Park & Preserve Wrangell-St. Elias National Park & Preserve
wolf	Katmai National Park & Preserve Lake Clark National Park & Preserve Voyageurs National Park Glacier National Park
wolverine	Lake Clark National Park & Preserve
moose	Voyageurs National Park
black bear	Shenandoah National Park Dinosaur National Monument
otter	Yukon Charley Rivers National Park
bighorn sheep	Glacier National Park
elk	Redwoods National Park
bobcat	Delaware Water Gap National Recreation Area
bald eagle	Glacier National Park
osprey	Padre Island National Seashore
turkey	Kings Mountain National Military Park
gopher tortoise	Canaveral National Seashore
sea turtles	Fort Jefferson National Monument Virgin Islands National Park
abalone	Cabrillo National Monument Channel Islands National Park
mullet	Everglades National Park
fresh water mussels	Mammoth Cave National Park
deer	Canaveral National Seashore Arkansas Post National Memorial
raccoons	Big South Fork National River

CHART V

Wildlife Protection Needs Assessment
FTEs Required to Curtail Poaching

Park	First Priority	Number of FTEs	Grade	Second Priority	Number of FTEs	Grade
** ARO						
ARO	WILDLIFE RANGER/PILOT	1.00	GS-12	N/A	0.00	
BELA	RANGER/PILOT	1.00	GS-11	N/A	0.00	
DENA	RANGER/INVESTIGATOR	1.00	GS-7/9	PARK RANGER-SEASONAL	0.75	GS-5
GAAR	WILDLIFE LE SEASONALS	2.50	GS-6/7	PERMANENT	1.00	GS-12
GLBA	DISTRICT R/BOAT OPERATOR	1.00	GS-11	AREA RANGER (SEE REPORT)	1.00	GS-9
KATM	CRIMINAL INVEST./PILOT	1.00	GS-9/12		0.00	
KEFJ	PATROL RANGER	1.00	GS-5/7	SEASONAL RANGER/PILOT	0.25	
KLGO	SEASONAL LE RANGER	0.25	GS-5	N/A	0.00	
LACL	RANGER/PILOTS	2.00	GS-9/11	N/A	0.00	
NWAK	DISTRICT RANGER	1.00	GS-11	SEASONAL RANGERS	0.50	GS-5/6
WRST	SUB-DISTRICT RANGERS	3.00	GS-9	LE SPECIALIST/INVESTIGAT.	1.00	GS-12
YUCH	WILDLIFE PROTECTION RANGE	1.00	GS-7/11	PROTECTION RANGER(SEASON)	0.50	GS-5/7
** Subtotal **		15.75			5.00	
** MAR						
ALPO	PERMANENT-2-ALPO,1-JOFL	3.00	GS-5		0.00	
ASIS	WILDLIFE PROTECTION SPEC.	1.00	GS-9/11	SEASONAL PARK RANGERS	1.25	GS-5/7
BOWA	PARK RANGER	1.00	GS-5		0.00	
COLO	SEASONAL RANGERS	0.75	GS-5		0.00	
DEWA	SEASONAL RANGERS	1.00	GS-5	1811 TRAINED IN WILDLIFE	1.00	GS-9
FONE	LAW ENFORCEMENT	1.00	GS-5		0.00	
FRHI	SEASONAL LAW ENFORCEMENT	0.50	GS-5		0.00	
FRSP	NONE	0.00			0.00	
GETT	NONE	0.00			0.00	
HOFU	SEASONAL PARK RANGER	0.25	GS-5		0.00	
NERI	SEASONALS	1.00	GS-5		0.00	
PETE	SEASONALS	0.50	GS-5		0.00	
RICH	LAW ENFORCEMENT RANGER	1.00	GS-5/7		0.00	
SHEN	INVESTIGATORS	3.00	GS-9	RANGERS	3.00	GS-5/7
UPDE	NONE	0.00			0.00	
VAFO	SEASONAL L.E. PERSONNEL	0.50	GS-5		0.00	
** Subtotal **		14.50			5.25	
** MWR						
AGFO	SEASONAL LE RANGER	0.25	GS-5		0.00	
EFMO	LAW ENFORCEMENT	1.00	GS-9	LAW ENFORCEMENT	1.00	GS-7
GWCA	TEMPORARY	0.25	GS-4		0.00	
LIHO	ADDITIONAL LE POSITIONS	0.00			0.00	
PIRO	SEASONAL LE (GS-025)	0.50	GS-5		0.00	
SCBL	SEASONAL LE RANGER	0.25	GS-5		0.00	
SLBE	SEASONAL LE RANGERS	0.50	GS-5		0.00	
VOYA	PARK RANGER	1.00	GS-7	PARK RANGER	3.00	GS-5

Wildlife Protection Needs Assessment
FTEs Required to Curtail Poaching

Park First Priority	Number of FTEs Grade	Second Priority	Number of FTEs Grade
** Subtotal **	3.75		4.00
** NCR			
ANTI NONE	0.00		0.00
CHOH FUNDING FOR SEASONAL TIME	0.00		0.00
MANA SUBJECT TO FURLOUGH	1.75		0.00
MONO ONE WEEK DETAIL OF RANGER	0.00		0.00
PRWI PARK RANGER - PERMANENT	1.00 GS-5/7	OR SEASONAL PARK RANGERS	0.50 GS-5
** Subtotal **	2.75		0.50
** NAR			
ACAD SEASONAL LE POSITIONS	1.00 GS-5		0.00
CACO PARK RANGERS	4.00 GS-5		0.00
FIIS SEASONALS	0.50		0.00
MORR PERMANENT LE PARK RANGERS	4.00 GS-5/7	SUPERVISORY RANGER -PERM.	1.00 GS-9
ROVA LAW ENFORCEMENT RANGERS	3.00 GS-5		0.00
SARA SEASONALS	0.75 GS-5		0.00
** Subtotal **	13.25		1.00
** PNW			
CODA SEASONAL LE RANGERS	2.00 GS-5		0.00
CRLA TEMPORARY	0.75 GS-6	SEASONAL	0.50 GS-5
MORA PERMANENT(WILDLIFE PROT.)	1.00 GS-9	SEASONAL LE POSITIONS	1.00 GS-5
NOCA LAW ENFORCEMENT	2.00 GS-7		0.00
CRMO SEASONAL LE RANGERS	0.50 GS-5		0.00
OLYM PERMANENT LE PARK RANGER	2.00 GS-7	SEASONAL LE PARK RANGER	1.75 GS-5
HAFO	0.00		0.00
** Subtotal **	8.25		3.25
** RMR			
ARCH LE SEASONAL RANGER	0.25 GS-5		0.00
BADL SEASONAL LE RANGERS	0.50 GS-5		0.00
BICA SEASONAL RANGERS	0.50 GS-5		0.00
BLCA SEASONALS	0.75 GS-5		0.00
CEBR SEASONAL LE RANGER	0.25 GS-5		0.00
CURE LE SEASONAL	0.25 GS-5		0.00
DINO SEASONALS	4.00 GS-5	PERMANENT RANGER	1.00 GS-7
FLFO COMMISSIONED CHIEF RANGER	1.00 GS-9		0.00
FOLA EXTEND SEASONAL FOR 2.5MO	0.00		0.00
FOBU SEASONAL DURING OCTOBER	0.10		0.00
GLAC SEASONAL LE RANGERS	1.50 GS-5		0.00
GLCA SEASONAL LE RANGERS	0.75 GS-5		0.00
GRTE SEASONAL PARK RANGERS	2.00 GS-5		0.00

Wildlife Protection Needs Assessment
FTEs Required to Curtail Poaching

Park First Priority	Number of FTEs Grade	Second Priority	Number of FTEs Grade
GRKO SEASONAL PARK RANGERS	0.25 GS-4		0.00
GRSA SEASONAL	0.25 GS-5		0.00
MEVE SEASONAL LE RANGER	0.25 GS-5		0.00
ROMO SEASONAL LE RANGERS	1.00 GS-5		0.00
THRO TEMPORARY	1.50 GS-5	N/A	0.00
YELL PFT	4.00 GS-7	SEASONALS	6.50 GS-5/7
ZION PERMANENT	1.00 GS-7	PERMANENT	4.00 GS-5
** Subtotal **			
	20.10		11.50
**			
	0.00		0.00
** Subtotal **			
	0.00		0.00
** SER			
BICY PARK RANGER	3.00 GS-7	BIO TECHS **SEE REPORT**	4.00 GS-4
BISC LE RANGERS	2.00 GS-5/7		0.00
BISO WILDLIFE PROTECTION SPEC	1.00 GS-9	PARK RANGER **SEE REPORT*	2.00 GS-7
CANA PARK RANGER	2.00 GS-7		0.00
CAHA PARK RANGERS	6.00 GS-5		0.00
CALO SEASONALS	1.00 GS-4/5		0.00
CHAT SEASONAL LE RANGERS	0.50 GS-5/7		0.00
COSW LAW ENFORCEMENT RANGER	1.00 GS-9	LAW ENFORCEMENT RANGERS	2.00 GS-7
CUGA PROTECTION SEASONALS	0.50 GS-4		0.00
CUIS	1.00 GS-5		0.00
EVER PERMANENT LE RANGERS	8.00 GS-7	SUPERVISORY RANGER	1.00 GS-9
FOCA RESOURCE MANAGEMENT SPEC.	1.00 GS-9		0.00
FOJE PARK RANGER	1.00 GS-5	PARK RANGER	1.00 GS-7
FOPU SEASONAL LE RANGER	0.25 GS-4		0.00
GRSM PERMANENT POSITIONS	4.00 GS-7		0.00
HOBE SEASONAL	0.25 GS-5		0.00
KEMO SEASONALS	0.00		0.00
KIMO SEASONAL LE RANGER	0.25 GS-5		0.00
MACA PARK RANGER	0.25 GS-9		0.00
NATR SEASONALS	0.00		0.00
OBRI FULL TIME LE OFFICER	1.00 GS-7		0.00
RUCA	0.00		0.00
SHIL PARK RANGER	1.00 GS-5		0.00
VIIS PATROL RANGERS	2.00 GS-6	PATROL/SUPVERV. RANGER	1.00 GS-7
** Subtotal **			
	37.00		11.00
** SWR			
AMIS LE W/ RESOURCE EXPERTISE	1.00 GS-7	SEASONAL LE RANGERS	0.50 GS-5
ARPO PARK RANGER	1.00 GS-4/5	PARK RANGER	1.00 GS-7/9
BAND SEASONAL LAW ENFORCEMENT	0.50 GS-5		0.00

Wildlife Protection Needs Assessment
FTEs Required to Curtail Poaching

Park First Priority	Number of FTEs Grade	Second Priority	Number of FTEs Grade
BITH PARK RANGERS	4.00 GS-5	PARK RANGER	1.00 GS-7/9
BUFF PERMANENT LE RANGERS	3.00 GS-5	PERMANENT LE RANGERS	3.00 GS-7
CACA	0.00		0.00
CHIC PERMANENT RANGERS (LE)	1.00 GS-5/7	SEASONAL RANGERS	0.50 GS-5
ELMO PARK RANGER (LE)	1.00 GS-7		0.00
JELA LE RANGERS	2.00 GS-7		0.00
LAMR PERMANENT	2.00 GS-7	TEMPORARY	4.50 GS-5
PAIS PARK RANGERS	2.00 GS-7		0.00
** Subtotal **			
	17.50		10.50
** WRO			
CABR SEASONAL	0.25 GS-5		0.00
CHIS PARK RANGERS	4.00 GS-5/7		0.00
CORO SEASONAL LE RANGER	0.25 GS-5		0.00
DEVA GS 025 W/SPECIAL TRAINING	4.00 GS-7/9		0.00
GRCA SEASONAL LE RANGERS	0.75 GS-5		0.00
KAHO LAW ENFORCEMENT	1.00 GS-5-9		0.00
LAME PERMANENT LE RANGERS	2.00 GS-5/7		0.00
LAVO ADDITIONAL MAN HOURS	0.00		0.00
LABE SEASONAL LE POSITIONS	0.50 GS-5	LE RESOURCE PROTECT(PERM)	1.00 GS-5
PORE PARK RANGERS	2.00 GS-7		0.00
REDW PARK RANGER (LE)	1.00 GS-5		0.00
SAMO SEASONAL LE RANGERS	0.50 GS-5		0.00
WHIS PERMANENT LE RANGERS	2.00 GS-7		0.00
YOSE SEASONAL LE POSITIONS	4.50 GS-5	PERM. RANGER COORDINATOR	1.00 GS-9/11
** Subtotal **			
	22.75		2.00
*** Total ***			
	155.60		54.00

CHART VI
Wildlife Protection Needs Assessment
Equipment Needs

Park	Equipment Needed First Priority	Equipment Needed Second Priority	Equipment Needed Third Priority	Equipment Needed Fourth Priority	Equipment Needed Fifth Priority
** Region ARO					
ARO	CESSNA 206	SUPPORT FOR AIRCRAFT			
BELA	NONE				
DENA	AIRCRAFT	FIREARMS	CAMERA	PORTABLE REPEATER	PATROL CABIN
GAAR	AIRCRAFT				
GLBA	BOAT				
KATM	BACKCOUNTRY FACILITY	NIGHT SIGHT EQUIPMT.	PHOTOGRAPHY EQUIPMT.	REMOTE SENSORS	LAPTOPS W/ DBASE
KEFJ	HELICOPTER	50 HRS FLIGHT TIME	300 H. FIXED WING		
KLGO	NONE				
LACL	2 SUPERCUBS PA-18				
NWAK	17' BOAT	MORE AIRCRAFT TIME			
WRST	AIRCRAFT	REMOTE TRACKING/SURV	RADIO EQUIP&REPEATER	OUTBOARD ENGINE	\$30,000 HELI SUPPORT
YUCH	RIVER BOATW/ JET				
** Region MAR					
ALPO	NIGHT VISION				
ASIS	VESSELS	SECURE RADIOS	NIGHT VISION	\$ FOR AIR OPS	
BOWA	RADIO				
COLO	4WD VEHICLE	DEER DECOY	REMOTE SENSORS		
DEWA	NIGHT VISION (2)	DEER DECOY	TURKEY DECOY	PHEASANT DECOY	
FONE	NIGHT VISION OPTICS				
FRHI	NIGHT VISION OPTICS				
FRSP	DEER DECOY				
GETT	NONE				
HOFU	NONE				
NERI	NONE				
PETE	NIGHT VISION				
RICH	ELECTRONIC EARS				
SHEN	NIGHT VISION OPTICS	RADIO EQUIPMENT	INFRARED PHOTOGRAPHY	REMOTE SENSORS	3 EQUIPPED VEHICLES
UPDE	NONE				
VAFO	NIGHT SCOPE				
** Region MWR					
AGFO	NONE				
EFMO	NONE				
GWCA	NIGHT VISION	RADIO W/ STATE GAME			
LIHO	NONE				
PIRO	VIDEO MONITORING				
SCBL	NONE				
SLBE	NONE				
VOYA	AIRCRAFT	4 WHEEL ATVs	SMALL OUTBOARD MOTOR	NIGHT VISION SCOPES	
** Region NCR					
ANTI	NIGHT SCOPE				
CHOH	NONE				
MANA	NIGHT VISION DEVICE	SOUND DETECTORS			

Wildlife Protection Needs Assessment
Equipment Needs

Park	Equipment Needed First Priority	Equipment Needed Second Priority	Equipment Needed Third Priority	Equipment Needed Fourth Priority	Equipment Needed Fifth Priority
	MONO RADIO PRWI UNMARKED VEHICLES	NIGHT SCOPES			
** Region NAR					
	ACAD NIGHT VISION DEVICES	\$ FOR UNMARKED VEH.	RADIO SCRAMBLERS		
	CACO GROUND SENSING DEVIC				
	FIIIS OUTBOARD 90HP				
	MORR 3 MARKED PATROL VEH.	3 MINI 14s			
	ROVA BINOCULARS	HAND HELD SPOT LIGHT	4 WD VEHICLE	NIGHT VISION EQUIP.	
	SARA STAR-LIGHT	NIGHT VISION EQUIP.	DEER DECOY		
** Region PNW					
	CODA NIGHT VISION GOGGLES	SPOTTING SCOPES	BINOCULARS	UNMARKED BOAT	
	CRLA NIGHT VISION EQUIP.	SPOTTING SCOPE & BIN	DEER MOUNT	TELEMETRY EQUIP.	4x4 VEHICLE
	MORA VIDEO CAMERA	NIGHT VISION	4WHEEL DRIVE VEHICLE		
	NOCA NONE				
	CRMO VEHICLE	SPOTTING SCOPE	BOUNDARY FENCE		
	OLYM ELECTRONIC SURVEILL.	UNMARKED 4X4 VEHICLE	CAMPING TRAILER	NIGHT VISION DEVICE	LISTENING DEVICE
	HAFO URGENT - MOTOR BOAT				
** Region RMR					
	ARCH NONE				
	BADL SPOTTING SCOPES	4 WHEEL ATV			
	BICA NIGHT VIEW DEVICES				
	BLCA NONE				
	CEBR NONE				
	CURE BINOCULARS (3 PAIR)	NIGHT VISION GOGGLES			
	DINO DECOYS (ELK, DEER)	NIGHT VISION EQUIP.	REMOTE CAMERAS	GROUND SENSORS	RADIO REPEATERS
	FLFO WELL MARKED VEHICLE				
	FOLA NIGHT VISION DEVICE				
	FOBU SPOTTING SCOPE	DECOY-BUCK MULE DEER	DECOY-BUCK ANTELOPE		
	GLAC MAGNATOMETERS	SHOT RESIDUE FORENSI	NIGHT VISION GOGGLES	INFRARED SENSOR	
	GLCA REMOTE SENSORS	NIGHT VISION EQUIP.	VIDEO CAMERA	REMOTE STILL PHOTO.	
	GRTE AIRCRAFT	REMOTE PHOTOGRAPHY	LISTENING DEVICES		
	GRKO NONE				
	GRSA NONE				
	MEVE NONE				
	ROMO SURVEILLANCE CAMERA	NIGHT VISION EQUIP.	UNDERCOVER VEHICLE		
	THRO AIRCRAFT USE - TEMP.	PROGRAMABLE RADIOS			
	YELL NIGHT VISION SCOPES	NIGHT VISION GOGGLES	TIME LAPSE CAMERAS	AUDIO SENSORS	
	ZION NIGHT VISION OPTICS	PARABOLIC MICROPHONE	AIRCRAFT SUPPORTCOST		

Wildlife Protection Needs Assessment
Equipment Needs

Park	Equipment Needed First Priority	Equipment Needed Second Priority	Equipment Needed Third Priority	Equipment Needed Fourth Priority	Equipment Needed Fifth Priority
** Region SER					
BICY	REMOTE SENSORS	NIGHT VISION GOGGLES	RADIOS THAT SCRAMBLE	MARINE BAND MOBILES	
BISC	BOATS				
BISO	UNDERCOVER VEHICLES	NIGHT VISION EQUIP.	ENCODED RADIOS	MECHANICAL ANIMALS	
CANA	SHALLOW DRAFT BOATS				
CAHA	NIGHT SCOPE				
CALO	SHALLOW DRAFT BOATS				
CHAT	UNMARKED LE VEHICLE				
COSW	4X4 PASSENGER/CARGO	4X4 ATV	4X4 PICKUP TRUCK		
CUGA	NIGHT VISION GOGGLES	REMOTE SENSORS			
CUIS	NIGHT VISION SCOPES	SECURE RADIOS	REMOTE SENSORS-VIDEO	REMOTE SENSORS-SOUND	
EVER	NIGHT VISION EQUIP.	HEAVY SPOTLIGHTS	4 WHEEL ATVs		
FOCA	UNKNOWN				
FOJE	RADAR W/ RADIO REC.	NIGHT VISION EQUIP.	SECURE RADIOS	PATROL BOAT	
FOPU	N/A				
GRSM	PROGRAMMABLE RADIOS	DEER MANNEQUINS (2)	LITTON NITE VISION		
HOBE	SPECIALIST	TRAINING			
KEMO	NONE				
KIMO	NONE				
MACA	NIGHT VISION EQUIP.	VIDEO CAMERA			
NATR	MECHANICAL DEER	TURKEY DECOY			
OBRI	NONE				
RUCA	\$ TO INCREASE PPTs	RADIOS			
SHIL	NIGHT VISION EQUIP.	LISTENING MAGNIFIERS	DEER DECOY		
VIIS	PATROL BOATS	SPOTTING SCOPES	NIGHT VISION EQUIP.	4 WHEEL DRIVE VEH.	
** Region SWR					
AMIS	NIGHT VISION EQUIP.	VEHICLE	BOAT	BINOCULARS	TELESCOPE
ARPO	LOCKED GATE	BOAT	MARKED RANGER CAR		
BAND	DECOY ELK	DECOY MULE DEER			
BITH	GROUND SENSORS	PHOTO SURVEILLANCE	COVERT RADIO	NIGHT VISION EQUIP.	
BUFF	NIGHT VISION SCOPES	REMOTE SENSORS	CAMPING EQUIPMENT	CAMOFLAUGE CLOTHING	MECHANICAL DEER FORM
CACA	PATROL VEHICLE (4X4)				
CHIC	4X4 PICKUP OR HUMV	STAR LIGHT SCOPE	VIDEO CAMERA	DECOY DEER	CAMOFLAUGED CLOTHING
ELMO	NONE				
JELA	AIR BOATS	"MUD" BOATS	NIGHT SCOPE		
LAMR	BOAT	VEHICLES	NIGHT VISION GLASSES		
PAIS	NIGHT VISION EQUIP.	4 WHEEL DRIVE VEH.			
** Region WRO					
CABR	NONE				
CHIS	25 FT. INFLATABLE(2)				
CORO	COMPACT BINOCULARS				
DEVA	NIGHT VISION SCOPES	REMOTE SENSING	METAL DETECTORS	PLANE	
GRCA	HORSES&AIRCRAFT TIME	RADIOS	SPOTTING SCOPES	CAMERAS&NIGHT VISION	DECOY(MULE DEER&ELK)
KAHO	NIGHT BINOCULARS				

Wildlife Protection Needs Assessment
Equipment Needs

Park	Equipment Needed First Priority	Equipment Needed Second Priority	Equipment Needed Third Priority	Equipment Needed Fourth Priority	Equipment Needed Fifth Priority
LAME	LISTENING DEVICES	REMOTE SENSORS			
LAVO	NONE				
LABE	NIGHT VISION SCOPE	GROUND SENSORS	.223 CALIBER WEAPON		
PORE	NIGHT SCOPE (1)	SPOTTING SCOPE (2)			
REDW	INFRA RED SURVEILLAN	LAPSE TIME CAMERAS	STAR LIGHT SCOPES	LISTENING DEVICES	
SAMO	SUPPORT FOR POSITION				
WHIS	SENSING DEVICES	RADIO EQUIPMENT			
YOSE	DETECTORS	CAMERAS			