NEVADA
PREDATION MANAGEMENT PLAN
FY 2007

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SEPTEMBER 2006

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Nevada Predation Management Plan

Fiscal Year 2007

July 1, 2006 - June 30, 2007

Summary

The Nevada Board of Wildlife Commissioners (Commission) approved five predation management projects within the *Fiscal Year (FY) 2006 Predator Management Plan* on August 6, 2005. Project 6A was initiated within the FY2002 Plan and was recommended to continue into FY2006. Projects 14 & 15 both commenced in FY2004 and were recommended to continue into FY2006. Both are five-year projects with conclusion dates in FY2008. Also approved within last year's plan were projects 17 & 18, which were initially accepted through the FY2005 Plan. These are five year projects slated to conclude in FY2009. These five projects are again recommended to comprise the Nevada Predation Management Plan for Fiscal Year 2007.

The Commission also approved three other projects on a provisional basis. These were: *Pending Project A: Predator Control to Protect Turkey Augmentations on Mason Valley Wildlife Management Area* – a project that NDOW and the United States Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) through its Wildlife Services (WS, formerly Animal Damage Control) branch had collaborated on many years ago prior to the formal planning process. *Pending Project 6B: Protection of Desert Sheep: East Walker River* is also a project that had been cooperatively undertaken by these two agencies in the past. Finally, *Pending Project C: Protection of Desert Bighorn Sheep: Excelsior Range* was a new recommendation and was designed to alleviate a situation that had developed due to the malfunction of a guzzler. All projects were approved for FY 2006 but the provisional status was that a funding source had to be sought outside of the predator fund established through the passage of Assembly Bill 291.

There are several changes within this year's fiscal year plan. In a departure from past procedure, wherein this document also served to detail the status of approved projects for the just-completed fiscal year, this year's Plan will be brief and succinct. Readers are encouraged to examine the NDOW document entitled: *A Program Overview - Nevada Predator Management Plan - A Report to the Nevada Board of Wildlife Commissioners' Wildlife Damage Management Committee.* This comprehensive report was prepared by NDOW to describe the history of the Predator Management Program, including description of management applications, a documentation of deliverables, an accounting of budget commitments and analysis of project goal-completion. This document was provided to the Commission's Wildlife Damage Management Committee and is also available online at *ndow.org*.

Next year, the annual report and fiscal year plan will return to the prior format. The Program itself will exist under a new name: *Nevada Predation Management Plan*

FY 2006 Project Status – Projects Funded for Continuation

Project 6A: Protection of Desert Bighorn Sheep: Delamar Mountains

Project Inception: 2002

Project Conclusion: ***not determined***

Project Area: Lincoln County - Delamar Mountains. North & South Pahroc Ranges and Hiko Range were added to the project area in FY2005.

Target Predator: Mountain Lion

Predator Control Action: WS hunts lions using dogs and uses other control tools such as a call box and snares.

Control Period: September - March

Beneficiary Species: Desert Bighorn Sheep.

Desired Result: Translocated bighorns can become an established population within this portion of their former range. Reduction of predators should result in improved survival of all age classes. Minimal predation upon mature females contributes to higher total annual production and minimal predation upon the lambs they produce contributes to higher annual recruitment.

Evaluation Period: year-round

FY2006 Expenditures: WS-Nevada had proposed a budget authorization in the amount of $9,104 to conduct mountain lion removal within the Delamars during FY2006. Expenditures amounted to $8,222 for the fiscal year.

FY2006 Summary of Control Activities: WS was able to remove a single large male lion during the past fiscal year. Lion activity had abated within the area. A total of three lions have been removed to date.

FY2006 Summary of Measured Outcomes: NDOW was able to gather composition data on one flight during the report period. Thirty-two bighorns were observed and this total was comprised of four rams, 23 ewes and five lambs.

Assessment Conclusions: Although only three lions have been removed, it is important to note that these were large lions. At least two of them were toms, which have larger home ranges. This combined with a low prey base of large ungulates within the study area does not create a situation supportive of large predators in any significant number. However, the project is designed to mitigate bighorn losses to predation until such time that the herd has reached a threshold level where such losses are overcome by recruitment.

Recommendation for FY2007: Continue with Project 6A.
Proposed Budget for FY 2007 (see table on last page): WS - $9,104; NDOW- $0

Project 14: Wilson Creek-White Rock Coyote Control to Enhance Deer Fawn Production

Project Inception: FY 2004
Project Conclusion: FY 2008 (5 year project)
Project Area: Management Unit 231, Lincoln County.
Target Predator: Coyote
Predator Control Action: WS to remove coyotes through aerial gunning, traps & snares.
Control Period: Control focused upon high elevation fawning grounds during March through August. Control on summer and other habitat will also occur August through February.
Desired Result: Mule deer numbers should increase if fawn survival improves through the elimination or diminution of coyote predation.
Evaluation Period: Mule Deer population and fawn production levels from before, during and after the project will be compared to help assess the effectiveness of the project. An age structure analysis will be conducted on coyotes during the course of the project to help determine coyote population dynamics. NDOW to monitor fall fawn ratios. Final evaluation to occur at the end of the project.

FY2006 Expenditures: WS-Nevada had proposed a budget authorization in the amount of $10,560 to conduct coyote removal within the treatment area during FY2006. Expenditures amounted to $9,108 for the fiscal year. NDOW did not record any expenditure for the report period.

FY2006 Summary of Control Activities: WS-Nevada reported the removal of 145 coyotes during the report period. Coyote age is determined through inspection of canine teeth. These teeth have not yet been submitted for analysis.

FY2006 Summary of Measured Outcomes: NDOW was able to gather post-season mule deer composition data during the report period for the project area and for surrounding areas. These are reported as follows:

Table 1. Project 14 Mule Deer Composition Data 2005-06

Unit Group	Post-season			Spring	
	Sample	B/100D/F	Adults/Fawns	Sample	Adults/Fawns
231	832	28/100/87	100/68	764	100/62
221-223	144	40/100/60	100/43	1,508	100/54
241-244	0	--	--	67	100/60

Assessment Conclusions:
A total of 431 coyotes have been removed through the three years of this project. Observed post-season fawn ratios improved considerably compared to the previous year and the average leading into 2005, suggesting enhanced initial survival. More importantly, spring fawn ratios, which are an index of recruitment, likewise improved against these same comparables. However, this phenomenon was repeated within adjacent areas where no control actions had been implemented. It is reported that habitat conditions during the report period were in excellent shape due to above average precipitation following a prolonged dry period. Please see the overview document for more detail.

Recommendation for FY2007: Continue with Project 14. (Five-year Project)
Proposed Budget for FY 2007: WS - $10,560; NDOW- $500

Project 15: Horse and Cattle Camp Loop, Schell Creek Range Coyote Control to Enhance Mule Deer Fawn Production

Project Inception: FY 2004

Project Conclusion: FY 2008 (5 year project)

Project Area: Management Unit 222, White Pine County. North of Patterson Pass to the northern border of the unit.

Target Predator: Coyote

Predator Control Action: WS to remove coyotes through aerial gunning, traps & snares.

Control Period: Control focused upon high elevation fawning grounds during March through August. Control on summer and other habitat will also occur August through February.

Desired Result: Mule deer numbers should increase if fawn survival improves through the removal or diminution of coyote predation.

Evaluation Period: Mule Deer population and fawn production levels from before, during and after the project will be compared to help assess the effectiveness of the project. An age structure analysis will be conducted on coyotes during the course of the project to help determine coyote population dynamics. NDOW to monitor fall fawn ratios. Final evaluation to occur at the end of the project.

FY2006 Expenditures: WS-Nevada had proposed a budget authorization in the amount of $8,640 to conduct coyote removal within the treatment area during FY2006. Expenditures amounted to $5,840 for the fiscal year. NDOW did not record any expenditure for the report period.

FY2006 Summary of Control Activities: WS-Nevada reported the removal of 86 coyotes during the report period. Total coyotes removed during the three years amounts to a total of 241 animals. Coyote teeth have not yet been submitted for analysis.

FY2006 Summary of Measured Outcomes: NDOW is unable to gather post-season mule deer composition data within the specific unit of the project area.

Recommendation for FY2007: Continue with Project 15. (Five-year Project). Further analysis may support the need to combine projects 14 & 15, using units 222 and 231 as treatment areas to compare against control areas identified for Project 14 plus Unit Group 114-115.
Proposed Budget for FY 2007: WS - $8,640; NDOW- $500

Project 17: Elko County Deer & Elk

Project Inception: FY 2005
Project Conclusion: FY 2009 (5 year project)
Project Area: South-central Elko County.
Treatment Area: East Humboldt Range - units 101, 105 & 107
Control Area: Ruby Mountains – units 102, 103, 104 & 108
Target Predator: Coyote, Mountain Lion
Predator Control Action: WS to remove coyotes and lions using all practical means.
Control Period: Control activities are deployed as follows:

Unit	Season of Control	Protected Species	Target Species
101	Spring, summer	Mule deer	Coyotes, lions
105	Spring, summer	Elk	Coyotes, lions
105/107	fall, summer	Mule deer	Coyotes, lions

Desired Result: Mule deer numbers should increase if fawn survival improves through the removal or diminution of coyote predation. Elk calf ratios have lagged in this unit. The project can be considered a success if predator removal results in improved recruitment in the Unit 105 elk herd.

Evaluation Period: NDOW shall conduct post-season mule deer aerial surveys and winter aerial elk surveys within the project area each year of the project. Composition of the findings shall reveal fawn survival from parturition to approximately five months old and calf survival into the winter.

FY2006 Expenditures: WS-Nevada had proposed a budget authorization in the amount of $61,136 to conduct coyote and mountain lion removal within the treatment area during FY2006. Expenditures amounted to $50,986 for the fiscal year. This project relies on considerable aerial hunting, which accounts for much of the expense.

FY2006 Summary of Control Activities: WS-Nevada reported the removal of 490 coyotes during the report period. Total coyotes removed during the two years amounts to 906 animals. Coyote age analysis is not done for this project.

FY2006 Summary of Measured Outcomes: NDOW was able to gather post-season and spring mule deer composition data during the report period for the project area and for the control area. These are reported as follows:

Table 1. Observed Fawn/Adult Ratios for Project 17 Treatment & Control Areas

Survey Type:	Unit Group:	1989-1994	1995-2004	2000-2004	2004	2005
Post-season	101, 105, 107	50	46	44	45	34
	102, 103, 104 & 108	50	46	43	40	29
Spring*	101, 105, 107	34	33	33	39	28
	102, 103, 104 & 108	34	36	35	40	30

Table 2. Area 10 Elk Estimates & Survey Findings						
	2001	2002	2003	2004	2005	2006
Pop. Estimate	180	180	170	160	160	250*
Calves/100♀	57	31	26	12	24	25

* The official elk population estimate for this unit group has not been published, as final modeling has not been accomplished. It is noteworthy that because of immigration from an adjoining population this unit group will increase significantly compared to the previous year.

FY 2006 Assessment Conclusions:
Predator control activities again resulted in the removal of many coyotes within FY2006. Total predator removal is impressive on face value, with Wildlife Services removing over 900 animals in just two years. Meanwhile, sport lion harvest has remained high in Area 10 with more than twice the total number of lions removed in the control area versus the treatment area. However, this served as a premise for the study – lion harvest in eastern Area 10 was much less than in the remainder of the area and biologists surmised that deer densities played a factor in this regard.

Observed fawn ratios are performing similarly between the treatment and control unit groups. Both exhibited diminished production and recruitment values compared to 2004 observations and compared to the preceding five, ten and fifteen year averages. Performance is remarkably balanced between the two areas. It is unknown whether the fawn ratios represent a density-dependent response since population data has not yet been analyzed as of this report. Compared to Project 18 fawn ratios, which are much more dynamic, the Area 10 fawn production rates are unimpressive. However, Washoe County (Project 18) fawn ratios are likely attributable to a response in habitat improvement following years of chronic low recruitment.

Recommendation for FY2007: Continue with Project 17. (Five-year Project).
Proposed Budget for FY 2007: WS - $71,136; NDOW- $0

Project 18: Washoe County Deer

Project Inception: FY 2005
Project Conclusion: FY 2009 (5 year project)
Project Area: Treatment Area: Granite Range, Washoe County.
Control Area: Balance of northern Washoe County.
Target Predator: Coyote, Mountain Lion
Predator Control Action: WS to remove coyotes and lions using all practical methodology.
Control Period: Year-round.

Other Action: NDOW will capture 30 mule deer in the area and fit them with radio transmitters. Generally, distribution of the capture complement will be split between opposing slopes of the Granite Range.

Desired Result: Mule deer numbers should increase if fawn survival improves through the removal or diminution of coyote predation. The project can be considered a success if predator removal results in improved recruitment in the Unit 014 deer herd.

Evaluation Period: Post-season deer aerial surveys within the project area shall occur each year of the project. Composition of the findings shall reveal fawn survival from parturition to approximately five months old. NDOW will also annually review climatic and precipitation data compiled by other agencies in an attempt to segregate control activity effects from natural ecological response. Population estimates and fawn production for this herd will be compared to those for other populations within.

FY2006 Expenditures: WS-Nevada had proposed a budget authorization in the amount of $33,859 to conduct coyote and mountain lion removal within the treatment area during FY2006. Expenditures amounted to $25,966 for the fiscal year. NDOW had anticipated expending $19,000 toward this project during the report period. Budget analysis is incomplete at this time; however, several aerial telemetry flights and a number of ground monitoring efforts ensued last year.

FY2006 Summary of Control Activities: Control activities included winter range habitat found in Hog Ranch Mountain. Again this year, WS was able to dispatch two lions. WS-Nevada reported the removal of 220 coyotes and two lions during the report period. A total of 365 coyotes and four lions have been removed during the two years of this project. Coyote age analysis has not yet been accomplished.

FY 2006 Summary of Other Actions: 24 mule deer were captured and collared in December 2004. FY2006 monitoring was as follows:

- A ground monitoring effort occurred on July 1, 2005 (1st day of FY2006) and was closely followed by an aerial follow up on July 8th. Again, aerial surveys found all instrumented animals alive.

- During the 2005 hunting season, one of the marked bucks was legally harvested by a Unit 014 tagholder. Findings thus far indicate that deer movements within the Granite Range are not very extensive.
- On June 21, 2006 NDOW personnel conducted another telemetry monitoring flight using the NDOW fixed wing Cessna. Of the original 24 installed transmitters a total of nine frequencies remained active and two of these were pulsing in the mortality mode. These latter instruments were determined to have been located in remote areas and several attempts were made in the early summer to locate them from the ground. The newly acquired UTM locations will help to better direct biologists into the remote areas where the transmitters are located. The other seven transmitters were functioning in the live mode. The instrumented deer have been monitored on a regular basis over an 18-month period. The battery life on the ear tag transmitters is generally 15 to 16 months.

FY2006 Summary of Measured Outcomes: Post-season and spring surveys were conducted in the treatment and control areas.

Table 1. Observed Fawn/Adult Ratios for Unit 014 and Adjacent Unit Groups

Survey Type:	Unit Group:	Averages: 1989-1994	Averages: 1995-2004	Averages: 2000-2004	2004	2005	2005 compared to: 2004	2005 compared to: 5yr avg.
Post-season	014	30	45	37	38	52	+37%	+41%
	Washoe	31	39	33	56	47	-16%	+42%
	033	25	48	50	56	57	+2%	+14%
Spring*	014	18	36	32	44	65	+48%	+103%
	Washoe	19	31	30	48	60	+25%	+100%
	033	17	37	33	44	58	+32%	+76%

* Spring data for the herd year (June-May) is actually collected in the calendar year following the year indicated for the post-season survey

Table 2. Comparison of Prehunt Adult Population Estimates Between Treatment (Unit 014) & Control Areas

	1989-1994	1995-2004	2000-2004	2004	2005	2006
Unit 014	1,603	900	925	850	900	1,000
Balance of N. Washoe*	Unable to segregate			2,300	2,650	2,900
Unit 033	1,450	1,250	1,500	1,300	1,450	1,500

*Estimate for Units 011, 012 & 013 + Nevada's apportionment of the Lassen-Washoe Interstate Herd residing in Unit 015.

FY2006 Assessment Conclusions: Movement patterns of the 24 marked deer based upon telemetry monitoring by ground and air have been analyzed and the conclusions are that deer on the Granite range have comparatively small home ranges. The data demonstrate that this population does not undergo the long distance migrations common in Nevada and eastern California deer. It can be surmised that some movement is likely attributed to prevailing climatic conditions rather than a traditional passage between distinct summer and winter ranges. During the monitoring period, data demonstrate that survival among the marked deer was very high.

Mule deer demonstrated good recruitment throughout Washoe County and the Sheldon in 2005-06. The strongest observed recruitment was observed in 014 and 015 (65 and 66 fawns per 100

adults, respectively) values that were yielded by very good sample sizes. Unit 011 was also strong at 62 fawns but sample sizes were extremely small and the ratio is not statistically valid. Also in 012 a fair sample of 122 deer yielded a ratio of 54. Preliminarily, one can surmise that herd performance is similar throughout the northwest part of Nevada, and that the improvement for Unit 014 is not a stand-alone anomaly. This can be further correlated with the broad-ranging improvement in habitat conditions. This is not unexpected when herbivore populations existing in low density following years of poor recruitment are provided with the conditions necessary to promote vegetative health. Concurrently, species preying upon these herbivores should respond similarly. In this regard, this study benefits from fortuitous timing. It is hoped that an unnatural reduction of predation at a time when prey is naturally responding to improved habitat conditions will result in improved fawn survival between birth and weaning. This should be easily detected.

Recommendation for FY2007: Continue with Project 17. (Five-year Project). It is important to avoid snapshot conclusions. With just two years of data gathered in this five-year study it is too early to draw any real conclusions. Mule deer herds need consecutive years of above average recruitment to rebound significantly from the low to moderate population levels that exist today. One cannot discount other factors either. Past wildfires have burned thousands of acres of important mule deer habitat in much of Washoe County, hindering herd recovery.
Proposed Budget for FY 2007: WS - $33,859; NDOW- $1,000

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FY 2006 Project Status – Provisionally Approved Projects

(Projects were not funded within the FY2006 Plan)

Project A: Predator Control to Protect Turkey Augmentations on Mason Valley WMA

Project Proposed: FY 2006

Project Area: Mason Valley Wildlife Management Area, Lyon County (Unit 203).

Target Predator: Coyote

Predator Control Action: WS to remove coyotes through aerial gunning, traps & snares.

Control Period: Project designed to diminish coyote numbers on WMA and adjacent private property in advance of schedule January 2006 turkey release.

Desired Result: Reduced predation along with an augmentation release should result in improved population dynamics for the existing turkey population in Mason Valley.

FY2006 Expenditures: No expenditure.

FY2006 Summary of Control Activities: The Commission did not fund this project but the Committee encouraged the proponents to seek alternative solutions to accomplish the work. NDOW biologists conferred with WS in seeking their cooperation to control coyotes along the margins of the Mason Valley WMA in conjunction with their work toward protection of winter sheep bands on fields adjacent to the WMA. This was done but total numbers of coyotes removed is unknown.

FY2006 Summary of Other Activities: NDOW translocated 45 turkeys from Texas.

FY2006 Summary of Measured Outcomes: NDOW had no plan to conduct surveys to measure the benefits of the control work. It is confirmed from similar work accomplished in the early 1990s that the coyote removal effort, which was conducted over a three-year period, was successful in reducing predation. As a result the turkey population grew quickly and expanded its distribution within the valley.

Recommendation for FY2007: Project not recommended for FY2007

Project 6B: Protection of Desert Sheep : East Walker River

Project Proposed: FY 2006. Project had been accomplished in FYs 2002 & 2003 and was successful in removing seven mountain lions. Project was recommended for resurrection to alleviate lion predation because the population appeared to be stagnant.

Project Area: East Walker River Canyon, Pine Grove Range, Lyon & Mineral counties (Unit 204).

Target Predator: Mountain Lion

Predator Control Action: WS to remove lions through hunting, traps & snares.

Control Period: Year-round

Desired Result: Diminish or eliminate predation by lions in order to increase adult and lamb survival. Work would continue until such time that the biologist determines that the herd has reached a threshold where production outpaces losses to predation that would occur in the absence of lion control.

FY2006 Expenditures: The Commission did not fund this project but the Committee encouraged the proponents to seek alternative solutions to accomplish the work. WS did conduct lion control actions in the vicinity in association with livestock protection. NDOW provided WS with a letter of approval to expand lion control work to include East Walker River Canyon with the expectation that lion removal under these circumstances would also serve the needs of this project.

FY2006 Summary of Control Activities: Two lions were removed on private property downstream from the East Walker River Canyon in conjunction with the livestock protection work during this report period. In addition to these two animals, since the work in FYs 2002 & 2003, one more lion was taken in depredation and three have been taken through sport harvest.

FY2006 Summary of Measured Outcomes: NDOW did not conduct bighorn surveys in this unit during FY2006.

Recommendation for FY2007: Project not recommended for FY2007

Project C: Protection of Desert Sheep: Excelsior Range

Project Proposed: FY 2006.

Project Area: Excelsior Range, Mineral County (Unit 206).

Target Predator: Mountain Lion

Predator Control Action: WS to remove lions through hunting, traps & snares.

Control Period: Year-round

Desired Result: Diminish or eliminate predation by lions in order to increase adult and lamb survival. Work would continue until such time that the biologist determines that the herd has reached a threshold where production outpaces losses to predation that would occur in the absence of lion control. A water development constructed in open terrain within the Excelsior Range had malfunctioned, leaving only natural springs located in steep willow choked canyons for the bighorns to use. During the fall of 2003, 10 mature rams were found dead in and around Mofo and Sponge Springs due to lion predation. The limited water in the Excelsior Mountain Range has enabled the lions a great opportunity to prey upon desert bighorn sheep with relative ease.

FY2006 Expenditures: The Commission did not fund this project but the Committee encouraged the proponents to seek alternative solutions to accomplish the work. Specific recommendations were to resolve the issue of the guzzler malfunction and to diminish the ability for lions to prey upon bighorns at Mofo and Sponge springs by cutting back vegetation.

FY2006 Summary of Activities: No lion control activities occurred since the project was not funded. There was one large tom taken by a sport hunter in Huntoon Valley to the west of this site in FY2006.

FY2006 Summary of Measured Outcomes: NDOW did not conduct bighorn surveys in this unit during FY2006.

Recommendation for FY2007: Project not recommended for FY2006

FINAL

APPROVED NEW PROJECTS FOR FY 2007

Project 19: Area 6 Wildfire Area Emergency Coyote & Raven Removal

Project Inception: 2006 (FY2007)

Project Conclusion: ***Single year action***

Project Area: Elko County – Management Area 6. Areas consumed by wildfires occurring during June – September 2006.

Target Predator: Remove coyotes and ravens concentrating in and around unburned habitat within and in vicinity of the Winters, Susie, Basco Flat and other summer 2006 wildfires.

Predator Control Action: Coyote: aerial gunning. Raven: placement of DRC-1339 injected chicken eggs.

Control Period: Coyote: throughout year (August 2006 – June 2007). Raven: prior to sagegrouse nesting cycle through end of brood rearing (spring 2007).

Beneficiary Species: Mule deer, pronghorn, sagegrouse and numerous other prey species.

Desired Result: Mule deer & pronghorn: Big game animals have traditionally occupied the treatment area during the winter months and as transitional range between seasons. Presently these animals are on summer range and as migration ensues, they will be forced to utilize fragmented unburned habitat within multiple wildfire perimeters. Where this occurs, losses from predation will be unnaturally high due to concentrations. Secondary mortality is likely to occur as deer and pronghorn adjust to the new circumstances by avoiding predation. Such behavior will result in starvation, as the affected animals are unable to find forage and cover away from fragmented unburned habitat. Although deer and pronghorn numbers will undoubtedly diminish anyway as a result of the reduction in forage and cover, predator removal could mitigate the impact of at least one mortality factor. NDOW shall also take measures to reduce pronghorn numbers in the treatment area through an emergency hunt and a winter translocation project.

Sagegrouse: Toxin-laden eggs will be strategically placed in locations. These locations shall be determined by NDOW biologists and are areas that have supported or were likely to have supported nesting and brood rearing prior to the wildfires. Or areas may consist of remaining fragmented habitat that contains the only remaining nesting substrate within the burn area. Timing shall also be strategic in order to target ravens that would likely prey upon nests and chicks.

Budget Review:

Table 1. Budget Summary for Project 19.

Agency	Item	Amount
Wildlife Services	Aerial gunning (@ $150/hour)	$15,000
	Egg placement	
NDOW	Population monitoring (covered through other funding)	- 0 -
	Total Approved Budget:	**$15,000**

Evaluation Period: Coyote: Post-season and spring big game surveys. Raven: Annual lek counts. Summer sagegrouse production surveys.

Evaluation Parameters: NDOW biologists may have difficulty measuring whether or not the project produced the desired results. Mule deer, pronghorn and sagegrouse numbers will all be less than pre-fire numbers due to a multitude of natural and human-induced factors. It will not be easy to distinguish and quantify the affect of predation management alone. WS personnel will be able to report the number of coyotes killed by gunning and the estimated number of ravens poisoned based upon egg breakage. They will also be able to articulate perceived and /or measurable declines in successive removal forays as an indication of predator density response to removal efforts.

Each agency shall prepare a report for the Committee by June 30, 2007.

The Commission's Wildlife Damage Management Committee approved the expenditure of $15,000 toward this project as an emergency project.

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FY2007 Project Budget Detail

WILDLIFE SERVICES FY2007 Infrastructure Needs							
Personnel	**Salary & Benefits**	**Per diem**	**Vehicle**	**D/T Hire**	**Supplies**	**Admin.**	**Total**
GS-11 (6 mos.)	$37,214	$800	$6,000		$400	$11,103	$55,517
AD-6 (12 mos.)	$44,194	$4,800	$12,300		$500	$12,356	$74,150
AD-6 (12 mos.)	$40,560	$6,240	$8,700		$500	$11,200	$67,200
Total	**$121,968**	**$11,840**	**$27,000**		**$1,400**	**$34,659**	**$196,867**

Infrastructure needs, while shown in the above table as a separate cost, are more correctly seen as a facet of each project.

Project 6a: Protection of Desert Bighorn Sheep: Lincoln County						
WILDLIFE SERVICES						
BUDGET ITEM	**FY02**	**FY03**	**FY04**	**FY05**	**FY06**	**FY07**
	Actual	**Actual**	**Actual**	**Actual**	Actual	*Projected*
GSA Vehicle (3 months)	NA	NA	$1,599	$1,987	$2,435	***$1,987***
Camp Trailer ($100/ month)	NA	NA	$0	$0	$1,007	
Horse and Dog Hire (3 months)	NA	NA	$2,972	$1,860	$3,410	***$1,860***
Equipment and Snares	NA	NA	$0	$2,180	$0	***$2,180***
Camp Rate (3 months)	NA	NA	$0	$1,560	$0	***$1,560***
Administration	NA	NA	$915	$1,517	$1,370	***$1,517***
TOTAL	**$17,523**	**$840**	**$5,486**	**$9,104**	**$8,222**	***$9,104***

Project 14: Wilson Creek - White Rock, Coyote Control to Enhance Mule Deer Fawn Production					
WILDLIFE SERVICES					
BUDGET ITEM	**FY04**	**FY05**	**FY06**	**FY07**	**FY08**
	Actual	**Actual**	**Actual**	*Projected*	
Aerial Hunting	$8,145	$9,675	$7,590	*$8,148*	
Supplies	$0	$480		*$300*	
Administration	$1,629	$2,031	$1,518	*$2,112*	
TOTAL	**$9,774**	**$12,186**	**$9,108**	***$10,560***	
NEVADA DEPARTMENT OF WILDLIFE					
BUDGET ITEM	**FY04**	**FY05**	**FY06**	**FY07**	**FY08**
	Actual	Actual	Actual	*Projected*	
Coyote ageing	$214	$500	$0	*$500*	
TOTAL	**$214**	**$0**	**$0**	***$500***	

Project 15: Horse and Cattle Camp Loop, Schell Creek Range. Coyote Control to Enhance Mule Deer Fawn Production					
WILDLIFE SERVICES					
BUDGET ITEM	**FY04**	**FY05**	**FY06**	**FY07**	**FY08**
	Actual	**Actual**	**Actual**	Projected	
Aerial Hunting	$5,235	$5,685	$4,875	*$6,712*	
Supplies	$0			*$200*	
Administration	$1,047	$1,233	$975	*$1,728*	
TOTAL	**$6,282**	**$7,398**	**$5,850**	***$8,640***	
NEVADA DEPARTMENT OF WILDLIFE					
BUDGET ITEM	**FY04**	**FY05**	**FY06**	**FY07**	**FY08**
	Actual	Actual	Actual	*Projected*	Projected
Coyote ageing	$213	$0	$0	*$500*	
TOTAL	**$213**	**$0**	**$0**	***$500***	

Project 17: Elko County Deer and Elk Project				
WILDLIFE SERVICES				
BUDGET ITEM	**FY05**	**FY06**	**FY07**	**FY08**
	Actual	**Actual**	*Projected*	
Wildlife Technician AD-5 (7 mos)	$13,712	$20,214	*$25,764*	
Wildlife Technician AD-5 (5 mos)		$1,213	*$18,403*	
APHIS Vehicle	$4,497	$5,171	*$8,500*	
Aerial Hunting	$13,860	$14,835	*$16,500*	
Dog/Horse Hire	$4,762	$1,150	*$1,680*	
Supplies	$605	$884		
Administration	$7,487	$7,519	*$289*	
TOTAL	**$44,923**	**$50,986**	***$71,136***	

Project 18: Washoe County Deer Project				
WILDLIFE SERVICES				
BUDGET ITEM	**FY05**	**FY06**	**FY07**	**FY08**
	Actual	**Actual**	*Projected*	
Wildlife Technician	$6,948	$12,465	*$11,087*	
APHIS Vehicle	$1,798	$2,813	*$4,200*	
Camp & ATV Hire	$2,765	$1,506	*$2,500*	
Aerial Hunting	$5,501	$4,755	*$9,000*	
Equipment (traps, Snares)				
Supplies	$290	$99	*$300*	
Administration	$3,209	$4,328	*$6,772*	
TOTAL	**$20,511**	**$25,966**	***$33,859***	
NEVADA DEPARTMENT OF WILDLIFE				
BUDGET ITEM	**FY05**	**FY06**	**FY07**	**FY08**
	Actual	Actual	*Projected*	Projected
Deer Capture and handling (30 animals @ $600/animal) and associated costs.	$16,667	Done	*$500*	
Radio Tags (30 ear-tags @ $225.00/ collar)	$4,880	Done		
Monitoring of animals (airplane, pilot, observer)	$11,793	$9,000		
Fall Survey	0	$10,000		
Coyote ageing	0	0	*$500*	
TOTAL	$33,851	$19,000	***$1,000***	

Project 19: Area 6 Wildfire Area Emergency Coyote & Raven Removal	
WILDLIFE SERVICES	
BUDGET ITEM	**FY 2007**
Aerial Hunting (100 hours @ $150/hr.)	$15,000
TOTAL	**$15,000**

FINAL

NEVADA PREDATION MANAGEMENT PROGRAM BUDGET OVERVIEW (Projects w/in FY2007 Plan Only)

			FY2002		FY2003		FY2004		FY2005		FY2006		FY2007	TOTAL	
Project #	Project Name	Species Controlled	Predators Removed	Expend.	Predators Removed	Expend.	Predators Removed	Expend.	Predators Removed	Expend.	Predators Removed	Expend.	*Budget*	Predators Removed	Expenditure
	INFRASTRUCTURE[1]				$187,044		$163,791		$178,643		$178,561		$196,867	$708,039	
6A	Delamar DBHS	Lion	0	$17,523	1	$840	0	$5,486	1	$9,104	1	$8,222	$9,104	3	$41,175
14	Wilson Creek Range Deer	Coyote			NDOW Budget:		138	$214	148	$0	145		*$500*	431	$31,282
					WS Budget:			$9,774		$12,186		$9,108	$10,560		
15	Horse/Cattle Camp Loop Deer	Coyote			NDOW Budget:		71	$213	84	$0	86		*$500*	241	$19,947
					WS Budget:			$6,495		$7,389		$5,850	$8,640		
17	Elko County Deer & Elk	Lion Coyote							419	$44,923	494	$50,986	$71,136	913	$95,909
18	Washoe County Deer	Lion Coyote					NDOW Budget:		147	$33,340	222		*$1,000*	369	$113,157
							WS Budget:			$53,851		$25,966	$33,859		
19	Area 6 Emergency Deer, Pronghorn & Sagegrouse	Coyote Raven											$15,000		
												Other NDOW Operating Budget:	*$172*		
	TOTALS:	NDOW:						$427		$33,340		$0	$2,172		$33,767
		Wildlife Services:	0	$17,523	1	$840	209	$21,755	799	$127,453	948	$100,132	$148,299	1,957	$301,470
												FY2007 OPERATING TOTALS[2]:	$347,338	← Figure Includes WS Infrastructure	

[1] Wildlife Services infrastructure totals are for all projects for a given fiscal year. Because this table only lists the five projects recommended for continuation within FY2007, the depicted infrastructure totals for some years may be in reference to projects not described within this table.

[2] NDOW figures depict only operating expenditures per project and do not include infrastructure amounts.