

APPENDIX M ACTION LIST

Action Name	Program or Element Supported	Lead Branch	Class	Must Fund (Yes/No)	Timeframe	Reference Number	Detailed Description
CPEN INRMP Climate Change Planning	4.4.1 Sustainable Ecosystem Management	PLANS		No		PEPL1101	None.
Environmental Planning Information Technology	4.5 Environmental Planning Division	PLANS	2	No		PEIT09006	Provide technical support and expertise for the environmental planning project management systems. All projects on the installation that are considered federal actions and require NEPA documentation are processed and managed at Environmental Security.
Sierra Training Area Vegetation Management	4.4.1.3 Invasive Weed Control	LMB	0	Yes		PEL103	None.
ESA/CWA Violation Mitigation	4.4.1.1 Wetland Management	LMB	0	Yes		PEL125	None.
BRFI Monitoring Plan	3.2.4.18 Thread-Leaved Brodiaea (<i>Brodiaea filifolia</i>)	LMB	0	Yes		PEL305	None.
Post Fire Restoration	4.4.1.3 Invasive Weed Control	LMB	0	Yes		PERL038	Project will reduce type conversion of federally listed California gnatcatcher habitat from CSS to invasive weeds, repair human caused damage by fire suppression activities, repair erosion gullies, and stabilize the soil.
Condition Assessment and Site Monitoring Program	4.3.3.6 Support Other Branches in Resources Management Division	WMB	1	Yes		PERA033	This task will support the following: 1) develop a monitoring program and conduct status reviews of archaeological sites on CPEN 2) conduct reviews of archaeological field surveys and evaluation activities and prepare written evaluation report.
Dune Ecosystem Maintenance	4.4.1.3 Invasive Weed Control	LMB	0	Yes		PE70293	This project involves the maintenance of the coastal dune community. The riparian, estuarine, and dune Biological Opinion (1-6-95-F-02) requires the systematic removal of invasive exotic vegetation including giant reed and ice plant.
Upland Weed Maintenance	4.4.1.3 Invasive Weed Control	LMB	0	Yes		PEL127	None.
ResMgmtDiv SIOH for NAVFAC Managed Projects	4.3.1.3 NEPA Support	WMB	0	Yes		PERW068	Provides funds for technical contract administrative support from NAVFAC staff at supporting NAVFAC Office. USMC Regional Contracting Office is unable to support Camp Pendleton's Natural and Cultural Resource management project load. First year's SIO.
SWDIV Ag Admin Support	4.4.3 Agricultural Management	LMB	0	No	2005-2009	PERL027	Provides funds for SWDIV to administer the agricultural program on a day to day basis. Only the Navy can manage leases not USMC, if not implemented there would not be an agricultural program.
Mission-Driven Wildland Fire Mapping	4.4.1.5 Fire Management	LMB	0	Yes	Every Other Year Beginning 2006	PEL109	Map fires and their intensities to determine the efficacy of the fire management plan.
Maintain Vouchered Herbarium	Program Canceled	LMB	0	Yes	2006 -2011	PEL312	Per INRMP, maintain Camp Pendleton vouchered plant specimens at San Diego State University to document plant lists scientifically.
FLETC Training for Game Wardens	5.2 RECB	RECB	0	No	Annually	PE06RG003	The Sikes Act requires properly trained employees to enforce conservation laws and regulations and MCO 5090.4 requires all new hire GS-1812s (Conservation Law Enforcement Officers) to complete the Federal Law Enforcement Training Center (FLETC) Land Management Police Training (LMPT) requirements in Glynco, GA. Four new game wardens and one biologist position were hired through the military/civilian conversion program at Camp Pendleton. These five new positions are required to become sworn conservation officers by HQMC upon completion of the FLETC training. Training is required in order for employees to meet the minimum training standards to enforce Federal, State, and Base laws and regulations relating to conservation, natural, environmental and cultural resources.
Vegetation Mapping and Tracking	4.4.1.2 Ecosystem Mapping and Monitoring	LMB	0	Yes	2013	PE02452	Required upland vegetation community mapping every five years per uplands BO to effectively utilize the GIS system as a planning tool and satisfy the Uplands Programmatic Consultation with the USFWS. Vegetation mapping deficiencies impact Camp Pendleton's mission by delaying planning and decisions regarding training and project implementation in areas that harbor endangered species and their habitat. Thus, this contract will map vegetation in the upland areas of Camp Pendleton with an accurate description of vegetation community types and associated acreages.

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Dune Habitat Management	4.3.2.1 Manage Riparian, Beach, Estuarine Species and Habitats	WMB	0	Yes	Annually	PE70292	This project involves the restoration of the coastal dune community type on Base. This habitat supports very rare and endangered plant and animal species. This project was addressed in the Riparian and Estuarine Biological Opinion and provides for the systematic removal of invasive exotic vegetation including giant reed and ice plant. This project will include dune revegetation and protection and enhancements of special-status species. This will improve the coastal dune community type on Base and benefit rare and federally listed plant and animal species.
Game Species Management Plan	5.2 RECB	RECB	1	Yes	2009	PERW023	Camp Pendleton's recreational hunting program requires a sound basis in biology and game management. Traditional hunting management practices such as pig or turkey stocking and habitat enhancement projects (including guzzlers) have the potential to impact endangered species. This project will produce an update to the game species management plan developed in FY03 that will provide recreational hunting opportunities to Base users while being consistent with other natural resource management objectives, with an overall basis in sound science.
Solar Bee Implementation	4.3.6.7 Sport Fish Management	WMB	0		Annually	PERW050	Install solar powered aerators in Lake O'Neill to increase oxygen levels, vent methane, reduce sludge on the bottom of the lake, and increase pH. This will also precipitate phosphorus accumulations to a biologically unavailable state. It will significantly reduce blue-green algae production.
Rare Plant Inventory	Program Canceled	LMB	0	Yes	2008	PEL310	None.
Exotic Riparian Weed Maintenance	4.4.1.3 Invasive Weed Control	LMB	0	Yes	Annually	PE67059	Riparian exotics are never eradicated and require maintenance treatment to keep the mitigation bank under 1% cover riparian exotics. Management of exotic riparian vegetation is required under the terms of USFWS Biological Opinion 1-6-95-F-02, October 1995, which provides Camp Pendleton flexibility in managing Marine training and other activities in riparian areas.
Aquatic Exotic Control - Endangered Species per BO	4.3.3.2 Exotics Control	WMB	0	Yes	Annually	PE93876	This is a maintenance phase of a project to eradicate or control undesirable exotic fish, reptiles, and amphibians from endangered species habitat. Planning and initial control efforts have been conducted over the past 6 years. Maintenance of control toward eradication of target species is still necessary to maintain optimal endangered species populations and maintain compliance with a 1995 USFWS Programmatic Biological Opinion/Conservation Plan for Riparian and Estuarine Ecosystems on the Base.
Artichoke Thistle Weed Control	4.4.1.3 Invasive Weed Control	LMB	1	Yes	Annually	PE94610	These funds will be used to control artichoke thistle throughout the Base. Artichoke thistle is a rigidly spiked, highly competitive weed which invades grassland areas and can dominate an entire area making it impassable by foot. In addition, due to its prickly nature it has no forage value. Control of artichoke thistle is an ongoing process because routine application ensures low reintroduction by reducing the seed source.
Early Detection Rapid Response	4.4.1.3 Invasive Weed Control	LMB	0	Yes	Annually	PEL101	Previously undocumented invasive weeds are discovered on the Base every year. Treating the sites before they get out of control will improve habitat functioning while saving the Base fiscal resources in the long-run.
Upland Invasive Weed Administration	4.4.2.3 Personnel	LMB	0	No	Annually	PEL334	Contract personnel to oversee burgeoning Upland Invasive Weed Management Program to support Uplands BA, BO, and INRMP.
Neotropical Migratory Birds Studies	4.3.5.5 Participate in DoD Partners in Flight	WMB	0	Yes	2005-2008 and 2010-2014	PE83915	The neotropical migratory bird studies are used to comply with the Base INRMP implementation and the new Migratory Bird Treaty Act (MBTA) agreements between the DoD and DoI. These studies will provide valuable information pertaining to Training Range sustainability.
Reptile and Amphibian Survey	4.3.3.3 Non-Federally Listed Species Monitoring	WMB	0	No	Annually	PERW009	Survey distribution and abundance of reptiles and amphibians aboard Camp Pendleton in a manner consistent with regional survey efforts
Bison Management Plan	4.3.4.4 Bison Herd Management	WMB	0	No	2008 and 2010-2015	PERW025	This project will provide an updated bison herd management plan. The plan will summarize historical bison impacts to base training lands, the training mission, and bison conflicts with competing natural resource management goals. The bison herd was established on base in the 1970s. The herd has gradually increased since that time and produced a concurrent increase in training mission impacts and safety.
Upland Weed Control	4.4.1.3 Invasive Weed Control	LMB	2	No	Annually	PERL005	Funds used to control invasive exotic upland plants that degrade Base ecosystems.

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Population Changes of Raptors	4.3.5.6 Raptor Management	WMB	0	Yes	Every 5 years	PE51323	The last survey of the status of predatory birds on Camp Pendleton was programmed for 1999. Population and habitat changes of raptors on MCB, Camp Pendleton need to be monitored periodically to determine trends that may be related to habitat changes and/or Marine training. Biologists have noticed, but not documented, decreases in population and reproduction for most of the 14 species found here. Training has greatly increased.
Species of Regional Concern – Monitoring	4.3.3.3 Non-Federally Listed Species Monitoring	WMB	0	No	Annually	PERW041	Implement a monitoring program for wildlife species of regional concern with specific focus on those species likely to become proposed for listing as threatened or endangered in the near future. Camp Pendleton needs sufficient information to properly respond to or prepare for future proposed species listings and have an optimal understanding of the regional contribution to endangered species and ecosystem management that its natural resources represent.
New Fire Management Plan	4.4.1.5 Fire Management	LMB	0	Yes	2007, 2008, 2009	PE87796	These funds will be used to support the Base's Fire Management Plan. The project will support the uplands programmatic consultation with the USFWS by monitoring fire activity and regrowth in areas of special concern. In addition, these funds will be used for restoration of sensitive habitat and to implement erosion control measures after major fires. Wildland fires can significantly impact sensitive resources, cause erosion and lead to negative impacts to the sustainable training mission on Camp Pendleton.
Trapping Brown-Headed Cowbirds per BO	4.3.3.2 Exotics Control	WMB	0	Yes	Annually	PE08683	As required by a USFWS Biological Opinion (1-6-95-F-02) and the Base's conservation program, brown-headed cowbirds are live-trapped and euthanized to reduce nest parasitism and increase reproductive success of 3 endangered bird species. Control of this exotic bird prevents nest parasitism on endangered songbirds on the Base. Funding requirement includes labor to operate the trap repair and replacement, if necessary.
Endangered Least Tern/Snowy Plover Predator Control per BO	4.3.2.1 Manage Riparian, Beach, Estuarine Species and Habitats	WMB	0	Yes	Annually	PERW037	Conduct predator control activities at Camp Pendleton in support of endangered species management programs. Efforts will focus on least tern and snowy plover nesting areas. This task is a requirement of the Programmatic, Riparian, Beach, and Estuary Biological Opinion.
Ant Control at Tern Colonies per BO	4.3.3.2 Exotics Control	WMB	0	Yes	Annually	PERW040	Conduct ant control activities at Camp Pendleton in support of endangered species management programs. Efforts will focus on least tern and snowy plover nesting areas. This task is a component of predator control activities required by the Programmatic Riparian, Beach, and Estuary Biological Opinion.
Eryngium Pendletonensis Surveys	4.4.1.2 Ecosystem Mapping and Monitoring	LMB	0	Yes	2006-2011	PEL307	Inventory for the rare plant Eryngium pendletonensis per INRMP. This project will inventory 800 acres of coastal bluffs to determine the population extent of this species which occurs only on Camp Pendleton.
Emergency Hydroseeding and Erosion Control	4.4.1.4 Erosion and Sediment Control	LMB	0	No	Annually	PEL323	Hydroseed sites that the Base tenants or FMD disturb through their projects but will not repair. These sites typically erode and become full of weeds. Hydroseed and stabilize through sediment fences and/or straw wattles.
Endangered Arroyo Toad Population Monitoring per BO	4.3.2.1 Management of Riparian, Beach, and Estuarine Species and Habitats	WMB	0	Yes	Annually	PE13284	This project supports readiness by providing compliance with the Base's Riparian Biological Opinion issued by the US Fish and Wildlife Service in partial compliance of the Endangered Species Act. Annual monitoring of this species is required by USFWS.
Brodiaea Filifolia Survey	4.4.1.2 Ecosystem Mapping and Monitoring	LMB	1	Yes	Annually	PE26624	Brodiaea filifolia is a federally endangered plant species on base and the population extent is unknown. Survey 15,000 acres of unsurveyed potential habitat for the species.
Erosion Control Program Manager	4.4.2.3 Personnel	LMB	0	No	Annually	PEL318	Program Administrator for multi-million dollar Base Soil Erosion Control Program, and also implements agricultural BMPs for the two agricultural leases on Base. Administers contracts to implement program.
Endangered SKR Population Monitoring	4.3.2.2 Manage Upland System	WMB	0	Yes	Annually	PE52180	Basewide SKR population monitoring and distribution surveys are programmed every five years to correspond with regional population monitoring efforts and to provide complete distribution information for Base management of this endangered species.

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Erosion Control for Coastal Canyons	4.4.1.4 Erosion and Sediment Control	LMB	2	No	Annually Beginning 2006	PERL004	This project will eliminate the encroaching bluff erosion causing extreme gully along the coast using intensive erosion control measures. This work will benefit the Base by improving resources available to training and decreasing hazardous conditions created by severe gully. This work will also prevent sedimentation into streams and the ocean, thus reducing chances of potential regulatory issues.
Endangered Tidewater Goby Monitoring per BO	4.3.6.5 Tidewater Goby Management	WMB	0	Yes	Annually	PE68255	Surveys of suitable habitat are required every three years by a programmatic section 7 Endangered Species Act consultation with the USFWS to provide data needed to support Camp Pendleton's ecosystem management for conservation of this endangered species.
Threatened Snowy Plover Nest Monitoring	4.3.5.4 Monitoring Programs	WMB	0	Yes	Annually	PE95976	This project monitors the base breeding population to document reproductive success of threatened western snowy plovers. Nesting chronology, predator impacts, hatching success, and fledgling survival are measured for all nesting areas on Base. Project must be funded and in place by March 1st in order to start work prior to initiation of nesting.
Least Bell's Vireo and Southern Willow Flycatcher BO Mandated Surveys	4.3.5.1 MBTA Compliance	WMB	0	Yes	Annually	PE99667	Annual monitoring of endangered least Bell's vireos and southwestern willow flycatchers is required under the terms of a 1995 programmatic USFWS section 7 ESA Biological Opinion (1-6-95-F-02) which provides flexibility for conducting Marine training and support in endangered species habitat outside of the breeding season and incidental take authorization for many MILCONs and small projects. Comparison with data from other regional surveys helps to confirm the Base's contribution to the conservation and recovery of these endangered species.
Vernal Pool Ecosystem Management	4.4.1.1 Wetland Management	LMB		No	2007	PE54498	Camp Pendleton has over 800 isolated ephemeral wetlands throughout the Base. Some of these wetlands are regulated as vernal pools by the USACE and may also be regulated by the USFWS if endangered species (plants and shrimp have both been found) are present in the pools. The Base is in the process of completing a vernal pool management plan in FY97 which will present a Basewide management strategy to minimize potential violations. This project is to implement the recommendations in the Vernal Pool Management Plan which includes annual monitoring and mitigation banking through early restoration efforts.
Vernal Pool Mitigation Monitoring per BO & COE	4.4.2.2 Mitigation Management	LMB	1	Yes	Annually Beginning in 2006	PERL024	Per the Mass III Conservation Plan and associated BO, improve vernal pool Mesa with endangered fairy shrimp and Navaretia fossalis.
Shrimp Extirpation Monitoring	4.4.1.2 Ecosystem Mapping and Monitoring	LMB	0	Yes	2006-2013	PEL314	AAAV Biological Opinion requires the Base to monitor fairy shrimp populations in Oscar Two and determine if military training impacts shrimp. This project conducts baseline fairy shrimp population dynamic assessment and monitoring at the EFV training area as required by the ESA Biological Opinion.
Improve Nesting Habitat-Endangered Least Tern per BO	4.3.2.1 Management of Riparian, Beach, and Estuarine Species and Habitats	WMB	0	Yes	Annually	PERW005	Maintenance and improvement of least tern breeding habitat including nesting island.
Threatened and Endangered Species Mitigation and Management Assessments	4.3.1.4 Mitigation Management	WMB	0	Yes	Annually	PERW015	Conduct assessments of potential mitigation and management techniques for listed species on Camp Pendleton. These techniques are proposed by the Marine Corps as compensation for temporary impacts to listed species from training and other authorized activities. These assessments will provide essential data and allow validation and testing of proposed mitigation or management methods for threatened and endangered species aboard Camp Pendleton.
ESA Driven Review and Assessment	4.3.1 Project Support Program	WMB	0	Yes	Annually	PERW022	This project supports readiness by providing compliance with programs providing programmatic coverage of training and other mission requirements under the Endangered Species Act and the National Environmental Policy Act. Allows review of projects in timely manner, avoiding costly delays.

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Endangered Species Awareness Program per BO	4.3.3.4 Natural Resources Awareness	WMB	0	Yes	Annually	PERW032	Develop and implement an Endangered Species Awareness program that will assist in ensuring compliance with all applicable biological opinions issued to the Base, including programmatic opinions. This program will have the added benefit of raising awareness both on and off Base of the valuable natural resources (including threatened and endangered species), the Base's management programs, and the opportunities and responsibilities of various Base users.
ESA/INRMP Implementation and Support	4.3.1 Project Support Program	WMB	1	Yes	2008	PERW051	Provide the USMC with the technical expertise and support to meet USMC statutory requirements under the Endangered Species Act and Sikes Act Improvement Act. This requested support includes review and comment on USMC efforts necessary to support implementation of the adaptive management goals necessary to conserve and rehabilitate natural resources, as reflected in the USMC INRMPs.
Endangered Tern/Plover Fence Maintenance per BO	4.3.2.1 Management of Riparian, Beach, and Estuarine Species and Habitats	WMB	0	Yes	Annually	PEWR002	Terms and conditions of two USFWS Biological Opinions (1992 resulting from a 1991 Kernal Usher Exercise; 1995 Programmatic Consultation for Riparian and Estuary/Beach Ecosystem Conservation) require that the Base erect and maintain seasonal fencing around least tern nesting areas on Blue and White Beaches. These USFWS Biological Opinions provide incidental take allowance of endangered least terns and threatened snowy plovers in support of military training on the beaches of Camp Pendleton provided the terms and conditions of the Biological Opinions are met.
CA Rapid Assessment Methods (CRAM)	4.4.1.2 Ecosystem Mapping and Monitoring	LMB	0	Yes	2008 and 2010	PE65828	The October 1995 U.S. Fish and Wildlife Service Biological Opinion on riparian and estuarine ecosystem management mandated aerial photography of the riparian estuarine areas on Camp Pendleton every 2 years, beginning in 1996. A 1998 Upland ecosystem Biological Opinion is expected to mandate periodic aerial photography of upland areas also. These photographs are required to monitor changes in vegetation/habitats within the Base ecosystem. This project also performs necessary interpretation to document acreage changes in vegetation/habitats.
BO Required Endangered PPM Monitoring	4.3.2.2 Manage Upland System	WMB	0	Yes	Annually	PE94454	Biennial monitoring of Base Pacific pocket mouse populations is required by the AAV fielding BO. A USFWS Biological Opinion for the MCRD Crucible Challenge Course on CPEN for recruit training requires monitoring of the PPM population in Oscar-1/Edson range areas biennially. Two of the three known populations of the endangered pacific pocket mouse are found on Camp Pendleton. All populations must be monitored periodically to demonstrate that Marine training and other Base activities have not adversely affected them in violation of the endangered species act. Baseline survey of the San Mateo south area is necessary to determine the exact extent of this population and provide the data needed for habitat management and site planning to avoid impacting this species.
Endangered Least Tern Monitoring per BO	4.3.2.1 Manage Riparian, Beach, Estuarine Species and Habitats	WMB	0	Yes	Annually	PERW028	Annual monitoring of the least tern colonies is requirement of the Riparian, Beach, and Estuary programmatic biological opinion.
Estuary Habitat Monitoring per BO	4.3.6.3 Estuary Management	WMB	0	Yes	Annually	PE53230	A programmatic 1995 USFWS Biological Opinion (1-6-95-F-02) requires the Base to monitor tide levels and water quality in the Santa Margarita River. The purpose of this project is to provide MCB Camp Pendleton with ecological trend data for Santa Margarita River Estuary and coastal estuaries. Trend data will include tidal influence in all Base estuaries and lagoons as well as hydrologic data on water quality and periodic fluctuations of water level in the Santa Margarita River Estuary. Cooperation will carry out the operation and maintenance of the USGS-installed tide gauge and water quality monitoring equipment in the estuary. This project will also track sedimentation in the Santa Margarita Estuary and other estuaries aboard Camp Pendleton.
Resources Sign Replacement	4.3.3.4 Natural Resources Awareness	WMB	0	Yes	2008	PERW059	The purpose of this phase is to purchase carsonite markers and associated decals to mark off sensitive environmental areas affected by the October 2007 wildfires that burned the Base.
SKR Habitat Enhancement	4.3.2.2 Manage Upland Systems	WMB	1	Yes	2008 2010 2012	PERW064	Impacts have been made to SKR habitat during various range improvement projects. During these projects, consultations with the USFWS were conducted. Impacts were mitigated for by the creation and maintenance of high quality SKR habitat. This project is to secure funds to conduct habitat manipulations to open the vegetation up for SKR.
Endangered Quino Checkerspot Butterfly Survey	4.3.3.7 Support Applied Research	WMB	2	No		PE20667	None.
Jurisdictional Waters Sediment Load Analysis/Fire Management Plan Implementation	4.4.1.4 Erosion and Sediment Control	LMB	0	Yes	Every Other Year Beginning 2007	PEL102	Sediment loads reaching jurisdictional waters from wildfires, erosion, training, are required to be kept at a minimum threshold to avoid CWA, 401 violations. This project measures sediment leaving site on Hazard Reduction Burns using sediment fence technology.
Contract Support	4.4.2.3 Personnel	LMB		No		PEL123	None.

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Contract Support Planner	4.5 Environmental Planning Division	PLANS		No		PEPP015	None.
Grow-The-Force Consultation Support	4.5 Environmental Planning Division	PLANS		No		PERW069	None.