

**Grant Submission Form****For Consideration for *TransNet* Environmental Mitigation Program (EMP)
Fiscal Year 2011 Funding for Land Management**

(Applications cannot exceed twelve (12) pages, including all attachments.)

Applicant Name¹: San Diego National Wildlife Refuge

Address: 14715 Highway 94/PO Box 746

Name of Property: San Diego National Wildlife Refuge

General Location: Jamul, California

Jurisdiction: Federal

Total Acres: 9,200

Less than one acre for the proposed nest installation but serving about 25,000 acres for

Estimated Acres Requiring Management: Golden Eagle use

Owner(s) of Property²: US Fish and Wildlife Service

Land manager(s) of property (include name(s)), years of experience managing habitat lands, existing land management responsibilities, and references): Application is proposed for consideration under the following eligible activity area (pick only one):

Jill Terp, Refuge Manager for San Diego NWR. Four years experience in managing Federal Refuge lands; 15 years as a biologist. John Martin, Refuge Biologist for San Diego NWR. Six years experience as Federal Refuge biologist; 25 years experience as a biologist. Responsibilities include coordination with partner agencies and researchers to further conservation of listed and sensitive species; supervising and conducting biological surveys for species and habitat to meet annual goals; developing statements of work for and supervision of contracted management actions including invasive species control, trespass prevention, habitat restoration; and coordinating with FWS Law Enforcement and Fire programs to protect and preserve Refuge resources. References - Andy Yuen, Project Leader for SDNWR Complex - Andy_Yuen@fws.gov; 760-930-0168 ext1.

- Invasive Control and Habitat Restoration*
- Species-Specific Management*
- Habitat Maintenance, Access Control/Management, and Volunteer Coordination*

Brief Project Summary (200-word maximum)

Two existing rock ledges will be enhanced as nest sites for Golden Eagles (Mt. San Miguel on San Diego NWR and Jamul Mountain on Bureau of Land Management) in the Jamul area. Several holes will be drilled in vertical rockfaces in appropriate locations and lengths of metal secured to create a platform. A nest foundation will be assembled on the expanded ledge with sticks. The nest vicinity will be

¹ While collaboration is encouraged in the development of the grant proposal, the proposal must identify one organization as the lead entity which will enter into an Agreement with SANDAG.

² If the applicant is not the landowner, please submit a letter or right-of-entry permit from the land owner granting permission to perform the land management duties as outlined in the application. Failure to provide the letter or right-of-entry permit will lead to disqualification of the application. **Attach letter or right-of-entry permit if applicable.**

splashed with whitewash (powdered calcium carbonate suspension in water) to simulate eagle droppings. The area will be monitored for eagle use. Although habitat loss due to human development and disturbance are the primary causes of decline of Golden Eagles in San Diego County, scarcity of nest sites in remaining suitable habitat may limit distribution of eagles. Provision of nest sites, especially in a former successful nest location, could make a large block of suitable habitat that is relatively free of human disturbance available for eagle breeding that may now only support foraging.

Quantify Expected Results (add bullets as necessary)

- Installation of two Golden Eagle nesting platforms in the Jamul area.
- Nest platforms could support the 14% of the Golden Eagle population identified in the Multiple Species Conservation Program as expected to persist in the area.
- Full success, not able to be guaranteed by the project, would be a pair of Golden Eagles re-occupying the historic San Miguel/Jamul Mountains territory, using of either of the artificial nest platforms, and laying eggs.

Funding Needs Summary

1. Please indicate how much funding is being requested from SANDAG and any matching funding proposed:

Budget Item	Requested Funding Amount	Proposed Matching Funds*	Description
Personnel Expenses Staff	\$0	\$8,400	Includes staff time for non-administrative work on the project
Personnel Administrative Expenses	\$0	\$240	Includes all staff time to administer the contract
Consultant Expenses	\$17,500	\$0	Includes all costs for consultant services
Other Direct Expenses	\$5,000	\$5,000	Includes all equipment, supplies, millage, etc....
Indirect Costs ³	\$2,365	\$0	All indirect charges (e.g., overhead) on the project, if any.
Total	\$23,865	\$13,640	Total Project Cost \$37,505 (64% Grant; 36% Match)

*if applicable

2. Are there matching funds available? If yes, how are the matching funds assured (100-word maximum)?

Yes No

Explain how matching funds are assured.

San Diego NWR and Carlsbad Ecological Services staff already invested time in assessing the situation at each location with visits to the Mt. San Miguel and Jamul Mountain sites. Refuge and ES staff will participate in the decision on precise nest location and construction method, the installation of the artificial nest, reporting, and the success monitoring as part of their regular duties. BLM has expressed that they will provide the NEPA documentation for their portion of the project.

PROJECT PROPOSAL

(Maps and/or graphics can be referenced and pasted at the end of this Word document or attached as a separate digital file.)

³ Indirect Costs are only allowable with either: (1) an indirect cost allocation audit approved by a qualified independent auditor or (2) the applicant's proposed method for allocating indirect costs must be submitted in accordance with OMB guidelines and approved by SANDAG. Indirect costs will not be reimbursed until one of the two conditions above are satisfied and indirect cost allocation plans must be renewed annually.

The proposal will include the purpose of the project, the scope of work by tasks, proposed budget, including matching funds, by task, and a schedule for each task. Applicants must clearly identify their proposed tasks in the scope of work, funding requested for each task (please identify staff hours and cost separately from consultant costs), start and end dates of the tasks, and deliverables. Applicants are encouraged to identify phasing in their proposal in case full funding for the project is not available.

A. Project Purpose

Address the following in the proposal.

1. What eligible management activities will be done on the property and why?

Two rock ledges will be enhanced to provide sufficient support for Golden Eagle (Aquila chrysaetos) nests. Although habitat loss due to human development and disturbance are the primary causes of decline of Golden Eagles in San Diego County, scarcity of nest sites in remaining suitable habitat may limit distribution of eagles. Provision of nest sites could make available for breeding Golden Eagles a large block of suitable habitat that is relatively free of human disturbance that may now only support their foraging. San Miguel Mountain (part of San Diego National Wildlife Refuge) supports a historic Golden Eagle nest site. The San Miguel nest site was known to be occupied by breeding eagles in the early 1900s, and sporadic records suggest that eagles used it throughout 20th century. The Wildlife Research Institute began monitoring the site annually in 1990. According to their records, eagles successfully fledged young from the site in 13 of 14 years between 1990 and 2004 (Dave Bittner, Wildlife Research Institute, pers. comm.). In 2008, WRI noted human disturbance on the hillside near the nest, in the form of off-road vehicles, illegal immigrants, and border patrol. In 2007, the entire area, including the nest site, burned in the Harris Fire, and the nest ledge collapsed, presumably due to cracking of the supporting rock due to thermal expansion and subsequent cooling. Eagles occupied the territory but did not nest successfully from 2005-2007. An eagle was observed doing a territorial display near the summit of San Miguel in early October 2007 (shortly before the fire). Since then there have been no reported observations suggesting that territorial eagles use the site, but occasionally subadult birds have been seen foraging in Proctor Valley (John Martin, USFWS, pers. obs.; David Hogan, Chaparral Institute, pers. comm.)

The off-road vehicles, the illegal immigrant traffic, and the construction of the Rolling Hills Ranch and Bella Lago housing developments may have played a part in motivating the adult pair of eagles to abandon the site. Likewise, these factors may have contributed to the 3 years of unsuccessful nesting on San Miguel. But the apparent abandonment of the territory coincides temporally with the collapse of the nest site. Now that illegal off-road driving has been curtailed by the new vehicle-barrier fence on Proctor Valley Road, and illegal immigrant traffic has been reduced (apparently by the construction of the border fence), provision of an especially attractive nest site in this historic location and another in a nearby location may induce the eagles to return. Golden eagles characteristically maintain multiple nests in a territory and alternate nests after 1-3 years in a nest. The San Miguel territory might be rendered more attractive to eagles by providing an alternate nest site in addition to replacing the collapsed historic nest site. A vertical rock outcrop on the north end of the Jamul Mountains, on land managed by the Bureau of Land Management, has vertical sections of rock that would be difficult for a predator to access, but lack a sufficient ledge to support an eagle's nest. We propose to create an artificial ledge on that outcrop as well.

2. What is the biological significance of the property for endangered or covered species, sensitive habitats, core habitat areas, wildlife linkages, and/or regional habitat conservation planning?

San Diego National Wildlife Refuge (SDNWR) is a key component of the Multiple Species Conservation Plan (MSCP) preserve system. As part of the National Wildlife Refuge System, the primary purpose of this 9,000+-acre refuge is conservation of wildlife, with provision of recreational opportunities for the public where appropriate and compatible with wildlife conservation. The specific purpose for establishment of SDNWR is "To protect, manage, and restore habitats for federally listed endangered and threatened species and migratory birds and to maintain and enhance the biological diversity of native plants and animals."

SDNWR supports a large number and wide variety of sensitive species, including 14 Federally listed Threatened or Endangered species, 1 candidate species for federal listing, and at least 34 species covered by the MSCP. Habitat types on SDNWR include coastal sage scrub, cottonwood-willow riparian forest, coast live oak riparian forest, valley needlegrass grassland, and vernal pools, all of which have been drastically reduced in extent in coastal southern California. In addition, SDNWR supports a

substantial amount of mafic southern mixed chaparral, which supports several uncommon plant species restricted to this vegetation type.

SDNWR lands conserve a large part of Biological Core Areas 7 (Sweetwater Reservoir/San Miguel Mountain/Sweetwater River) and 8 (McGinty Mountain/Sycuan Peak/Dehesa) identified in the MSCP.

The BLM land upon which one of the nest ledges would be established is part of Biological Core Area 6 (Jamul Mountains).

The proposed nest ledge enhancement sites lie within approximately 25,000 ac bounded approximately by Sweetwater Reservoir and Spring Valley to the northwest, Jamul and SR 94 to the northeast, Otay Reservoir and Otay Lakes Road to the southeast, and Chula Vista to the southwest (Figure 1). This area supports large expanses of coastal sage scrub, chaparral, and non-native grassland, and relatively little human development, and is suitable habitat for eagles. Furthermore, it is apparently not currently occupied by breeding eagles (John Martin, USFWS, pers. obs.; Dave Bittner, Wildlife Research Institute, pers. comm.). Territorial eagles likely occupy Hollenbeck Canyon north of SR 94, and O'Neal Canyon on Otay Mountain (John Martin, USFWS, pers. obs.; Dave Bittner, Wildlife Research Institute, pers. comm.).

3. Does the site suffer from natural, human, or domestic animal disturbance (e.g., off-road vehicle use, uncontrolled access, unauthorized grazing, fire, flooding, erosion, exotic species invasion, and/or feral cats)?

Human disturbances that may have interfered with eagle nesting from 2004-2007 have decreased substantially. Off-road vehicle traffic has been greatly reduced by establishment of a barbed-wire fence along Proctor Valley Road in early 2007, followed by a much more durable pipe barrier in late 2010. In travelling Proctor Valley Road 1-6 times/week prior to fence installation, Refuge staff saw off-road vehicles in Proctor Valley nearly every visit. Since the pipe barrier went up, only very few off-road vehicles have been seen, and those within the upper end of Proctor Valley on private and California Department of Fish and Game lands out of a direct line-of-sight from the former eagle nest. Illegal immigrant traffic near the eagle's nest has also diminished, probably in response to the construction of the border fence. Prior to the erection of the fence, freshly-discarded backpacks and clothing on the road that leads out to the ridge over the nest site were observed frequently. Now much less such debris is seen in the area and border patrol activity has also declined. In 2004-2005, border patrol agents occasionally drove or walked the dirt road extending from the road to the summit of San Miguel out to the lesser peak approximately 1 km E/SE of the summit, overlooking the eagle's nest. That road has now been badly eroded and is undriveable but agents may still access that route on foot.

Two feral goats were noted on the site in spring of 2009 and April 2010 (Dave Bittner, Wildlife Research Institute, pers. comm., John Martin USFWS, pers. obs.). However, on two visits in spring of 2011 no evidence that goats still inhabit the area was noted. Exotic herbaceous plants occur in the area, but they are unlikely to interfere with this project or affect its success.

The site is subject to fire, as demonstrated by the Harris Fire in October 2007. The fire likely contributed to natural degradation of the rock face upon which the historic nest site occurred, but this was a rare event, and there is no indication that the site is subject to an erosion problem.

4. Is immediate action needed to address a problem to prevent the site from degrading further? Would the further degradation potentially affect covered species?

The site itself is unlikely to degrade significantly if this project is not implemented. However, what is likely to degrade is the potential for colonization (or re-colonization) of the site by eagles. The individual birds that nested on San Miguel Mountain as recently as 2004, and visited the site in early 2007, may still be alive and in the MSCP area. The adults that occupied the site in 2004-2007 were untagged, unbanded, full adults. Those birds, with knowledge of this site, are more likely to come back and occupy it than are naive young birds dispersing in the area. Furthermore, the Golden Eagle population in cismontane southern San Diego County has been declining rapidly over the last several decades. If this trend continues, the likelihood of colonization of suitable habitat – and thus the likelihood of success of this project – will continue to decline.

Abandonment of this Golden Eagle territory may have a profound effect on the species' persistence in the MSCP area, and has the potential to affect coverage of Golden Eagles under the MSCP. Table 3-5 of the MSCP indicates that Golden Eagle is considered covered based on the assumption that 7 breeding pairs in the MSCP area would remain viable. The eagle territory

addressed in this proposal (the "Rancho San Diego" territory) is specifically called out as one of the seven territories that are expected to remain viable. It currently is not viable.

5. Does the proposal use efficient and proven methods and/or strategies to address the land management needs that would result in a high likelihood of success and reduce future land management costs (e.g., control of small outbreak of aggressive exotic species, fencing to prevent damage to rare plant populations)?

The response of Golden Eagles to artificial nest structures provided specifically for them is not well-studied. However, Golden Eagles frequently nest on power transmission towers, windmills, and other man-made structures (Kochert et al. 2002). Upon the collapse of their nest in a eucalyptus, a pair of eagles were induced to re-nest and successfully fledged young from an artificial structure in the historic nest tree (Colleen Lenihan, San Diego Zoo Institute for Conservation Research, pers. comm.). They had abandoned the historic nest tree, but remained on territory for 3 years prior to the construction of the artificial platform. Biologists built an artificial nest on the platform, and simulated eagle droppings with white spray-paint, which may have helped in attracting the eagles. Golden Eagles have been induced to accept artificial nest platforms by relocating their nestlings there, after which they successfully fledged young, and then nested successfully on the artificial platform of their own volition in subsequent nesting seasons (Postovit et al. 1982, Fala et al. 1985).

6. Does the proposal implement a strategic approach which covers large geographic areas (e.g., watershed or subwatershed extent) involving multiple partners and providing multiple benefits (e.g., part of a larger coordinated effort that is high economy-of-scale)?

The proposed project covers a large geographic area, in that it may cause a 25,000-acre area to be re-occupied by Golden Eagles, and would involve multiple partners (USFWS and BLM); additional conserved lands in the nest area include City of San Diego and Department of Fish and Game. Even if the project does not induce breeding Golden Eagles to re-occupy their former territory, it has the potential to provide other benefits by creating a nest site that may be used by other raptor species (e.g., Prairie Falcon, Red-tailed Hawk, Common Raven) when not being used by eagles. The nesting structure is also likely to last, with continued potential for benefit to wildlife, for decades with minimal or no maintenance costs.

7. How would the project result in measurable biological success to implement the Natural Communities Conservation Program regional preserve system? What measurable results would be used to determine success of the project?

If successful, the project would provide over 14% of the Golden Eagle population expected to persist in the MSCP area under the rationale for identifying the species as a covered species. For the project to be fully successful, a pair of Golden Eagles would re-occupy the historic San Miguel/Jamul Mountains territory, use of either of the artificial nest platforms, and lay eggs on the nest. Eagles may temporarily defend a territory without nesting or build on a nest without nesting on it. While not able to be guaranteed by this project, egg-laying would be an unequivocal sign of the eagles' acceptance of the artificial structure and fledgling of young eagles would be the ultimate success.

8. How would the project involve public outreach/public participation to identify the land management activities being funded and promote awareness of grant-funded project? In your proposal please estimate the following, if any:

- a. number of individuals in public to benefit from the project,

Benefits to the public are primarily aesthetic, and may be realized by actually seeing the eagles, or merely by knowing that they are present in relatively close proximity to metropolitan San Diego. The entire population of San Diego County (approximately 3 million people, US Census 2010) has the potential to benefit through knowledge that eagles live in the hills that are visible east of downtown San Diego.

- b. number of proposed volunteer hours on project,

No volunteer involvement in this project is proposed.

- c. use of signage and interpretation features to be used to educate public on purpose of project,

Information on the purpose, nature, results, and funding source for this project may be presented in Refuge publications and at scientific or technical conferences, or in the form of a poster or graphics at public events such as volunteer work days, Earth Day or International Migratory Bird Day.

- d. outreach efforts on public access, if proposed.

No public access to the project area is proposed. The partners will work to reduce public access within 1 km of the sites to protect eagles from disturbance. As noted above, interpretation and education information related to the project will be presented at outreach events and other presentations.

B. Scope of Work by Task

Please break down the proposal into discrete tasks with a task name, description of each task, quantify expected results, and discrete deliverables for each task. Note: make sure to include tasks for both quarterly reporting on the status of the grant project and a final report on the outcome of the grant project. The applicant should choose one of the three eligible activities, described in the Call for Projects that best characterizes their project for consideration under this grant program.

1. *Environmental compliance: To be completed by SDNWR and BLM staff prior to construction*
 - a. *NEPA compliance for the SDNWR and BLM sites. Expected results/deliverables: Categorical Exclusion*
 - b. *ESA Section 7 analyses for SDNWR and BLM sites: Expected results/deliverables: documentation of no "may affect" determination.*
2. *Procurement of materials/equipment/gear: Purchase and rental at local hardware store and rental yard for materials/equipment; Gear provided by climbers. Expected results/deliverables:*
 - a. *Angle iron and other metal and wire for nest platform construction*
 - b. *Epoxy glue*
 - c. *Whitewash and applicators*
 - d. *Portable gas-powered rock drills and welder*
 - e. *Gasoline for drills*
 - f. *Climbing harnesses/ropes/safety gear*
3. *Construction and Installation of nest structures: Fish and Wildlife staff and experienced Contractors/Climbers/Fabricators build structures and contract helicopter to bring materials and equipment to/from site*
 - a. *Installation at the SDNWR site;*
 - b. *Installation at the BLM site;*

Expected results/deliverables: Two artificial nests of sufficient size to support nesting eagles
4. *Reporting: Expected results/deliverables: a brief report outlining nature of the project, time, effort and personnel required for installation, expenditures, and photographs of nest structures and installation process. A brief letter progress report will be submitted quarterly with a final report with photos upon completion of the nest structures.*
5. *Monitoring: Each structure will be monitored for eagle or other raptor activity from approximately 1.5 km away, using binoculars and a 20-60 zoom spotting scope, for a 4-hour period in December (approximate nest-building period) and February (approximate egg-laying period) for five years following installation. Expected results/deliverables: an annual letter report documenting times, dates, personnel, conditions under which monitoring was conducted, and any observations of eagles or other raptors using the artificial platforms. Eagle observations will be shared with appropriate agency staff.*

C. Budget by Task

Please include a specific budget for each task described in the Scope of Work (section B above). This should include both requested SANDAG funds and any matching funds proposed. If matching funds are proposed, please distribute the match commitment proportionately throughout the project budget. For projects requesting funding for more than one year, please indicate the requested funding and match for each year. Applicants are encouraged to identify phasing in their proposal in case full funding for the project is not available. You may add or subtract rows and columns as needed (or insert an Excel spreadsheet).

Task # and Name	Total Project Cost	Grant Request	Total Match	Year 1 Grant Request	Year 1 Match
1. Environmental Compliance	\$3,200	\$0	\$3,200	\$0	\$3,200
2. Materials/Equipment/Climbing Gear	\$9,000	\$4,000	\$5,000	\$4,000	\$5,000
3. Construction and installation of nest structures including contractors, travel, helicopter time	\$21,100	\$17,500	\$3,600	\$17,500	\$3,600
4. Reporting	\$960	\$0	\$960	\$0	\$960
5. Monitoring	\$640	\$0	\$640	\$0	\$640
Overhead/Admin	\$2,605	\$2,365	\$240	\$2,365	\$240
Total	\$37,505	\$23,865	\$13,640	\$23,865	\$13,640

D. Project Schedule

Please include a specific start and end date for each task described in the Scope of Work (section B above). This should include both tasks by number and the month and year of the start and end dates. Please include tasks for both quarterly reporting on the status of the grant project and a final report on the outcome of the grant project. You may add or subtract row and columns as needed (or insert an Excel spreadsheet).

Task # and Name	Proposed Start Date	Proposed End Date
1. Environmental Compliance	09/01/11	02/29/12
2. Materials/Equipment/Climbing Gear	01/01/12	12/31/12
3. Construction and Installation of nests	01/01/12	12/31/12
4. Reporting - Quarterly and Final	12/31/11	01/31/13
5. Monitoring	12/31/12	08/31/13

NOTICE REGARDING PREVAILING WAGES

SANDAG's EMP Land Management Grants are funded with *TransNet* revenues consistent with the *TransNet* Extension Ordinance adopted by the voters in November 2004, (SANDAG Ordinance 04-01). Although SANDAG Ordinance 04-01 does not require payment of prevailing wages, a recent appellate court case (Asuza Land Partners v. Department of Industrial Relations 191 Cal. App. 4th 1 (2010)), may require that *TransNet*-funded public works projects pay prevailing wages to workers. The Asuza case held, in part, that all construction of public improvements required as a condition of regulatory approval is subject to prevailing wage law, including public infrastructure constructed at private expense. Before submitting a grant application to SANDAG, applicants are strongly encouraged to seek advice from an attorney regarding whether the Asuza case will subject the proposed grant project to prevailing wage laws consistent with Labor Code Section 1720 *et seq.* If awarded an EMP Land Management Grant, the grant agreement between SANDAG and the grantee requires grantee's compliance with all federal, state and local laws and ordinances applicable to the agreement.


REQUIRED STATEMENTS FROM GRANTEE

- Yes No The proposed grantee has read the standardized agreement.
- Yes No If the SANDAG Board of Directors approves the grant, the proposed grantee agrees to sign and return the standardized agreement to SANDAG, without exceptions, within 45 days of receipt, **OR A MUTUALLY COMPATIBLE AGREEMENT AS HAS BEEN DONE IN PAST CONTRACTS BETWEEN USFWS AND SANDAG.**
- Yes No The proposed grantee agrees to comply with SANDAG's Board Policy 035 "Competitive Grant Program Procedures," which outlines "use-it-or-lose-it" project milestone and completion deadlines. Board Policy 035 is included in the standardized agreement, and is also on SANDAG's website at the following link: http://www.sandag.org/organization/about/pubs/policy_035.pdf
- Yes No The proposed grantee understands that that 10% of all invoices will be retained until the completion of the project.
- Yes No The proposed grantee understands that that all invoices must be accompanied by written support of the charges for both requested reimbursement of grant funds and matching funds.
- Yes No The proposed grantee understands that approval of funding by the SANDAG Board of Directors, the applicant will provide a copy of their approved indirect rate audit or their proposed methodology to SANDAG for review and approval which must occur prior to the execution of the grant agreement.
- Yes No The proposed grantee understands that a resolution including the requirements of Board Policy 035, Section 4.1, must be submitted to SANDAG at least **two weeks** prior to the recommendation by the Regional Planning Committee of the list of grant projects to be considered eligible. SANDAG will provide applicants with advance notice of the Regional Planning Committee's anticipated meeting date.

I have the authorization to submit this grant on behalf of my organization.

Jill Terp, Refuge Manager

Grantee Name/Title (print or type)



Grantee Signature

06/10/11

Date