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 Name[1]:	U.S. Geological Survey
Address:	4165 Spruance Road, Suite 200, San Diego, CA, 92101
Name of Property:	Encinas Creek, Carlsbad Oaks, Rancho La Costa, Wilmont &Morro Hills
General Location:	Coastal drainages of north San Diego County including tributaries to the San Luis Rey and Agua Hedionda, Buena Vista and Escondido Creeks
Jurisdiction:	Carlsbad, Encinitas, Oceanside and Vista
Total Acres:	To be determined through grant
Estimated Acres Requiring Management:	To be determined through grant
Owner(s) of Property[2]:	CNLM, UC San Diego, North County Transit District, Department of Fish and Game

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):

☐ *Invasive Control and Habitat Restoration*

☒ *Species-Specific Management*

☐ *Habitat Maintenance, Access Control/Management, and Volunteer Coordination*

[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.

Brief Project Summary (200-word maximum)

Western pond turtle (*Emys marmorata,* WPT) populations within the MSCP region of San Diego as well as those on Marine Corps Base Camp Pendleton are well known and documented. The status of WPT in several coastal drainages between these two regions, however, is less well known. This project will determine the status of WPT in the northern portion of San Diego County and develop a strategic management plan for restoration and enhancement of these coastal drainages for WPT. The management plan will address threats to WPT and prioritize sites for restoration. Based on these recommendations, we propose an additional year of invasives removal at two of the high priority sites. Sites will be surveyed for native and invasive aquatic species to determine distributions and abundance throughout the available WPT habitat. Sites are chosen based on potential habitat for WPT, proximity of historic records and potential for restoration and management for WPT. Project sites include Agua Hedionda, Buena Vista, Escondido and San Marcos creeks and tributaries to the San Luis Rey. This project is the necessary first step in applying WPT management and habitat restoration that has been successful in other watersheds to these drainages.

Expected Results

- An assessment of the current status and distribution of native and invasive aquatic species in coastal drainages of northern San Diego County south of MCB Camp Pendleton and removal of invasive turtles (and other species) encountered during surveys.
- A framework management plan for WPT restoration and management in north coastal San Diego County with prioritization of restoration sites and recommended actions.
- A USGS Factsheet that summarizes survey results and includes a description and number of invasives removed.
- Pubic outreach with local partners (i.e. turtle and tortoise clubs, SD Zoo) and up to 850 hours of volunteer time on the project.

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	$175,425.68	$28,758.39	Staff time for field work, data management and analysis and final reporting
Personnel Administrative Expenses	$--	$--	See Indirect Costs
Other Direct Expenses	$9,240.25	$2,200	Vehicle mileage, trapping supplies, bait (imagery match)
Indirect Costs[3]	$86,995.18	$--	USGS WERC Science Center indirect costs, including grant administration
TOTAL:	$271,661.11	$30,958.39	Total amounts of requested funding and proposed matching funds

*if applicable

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.

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:

Matching funds are based on expended staff time that is not invoiced to the project. In cases where the time is volunteer based, prevailing wages from Wage Determinations OnLine.gov are used to calculate match in accordance with the Service Contract and Davis-Bacon Acts. Staff and volunteer time will be tracked in the time management database and reported in quarterly invoices. Match will be provided through a combination of field time, spatial data management, data analysis, writing, document review and outreach.

PROJECT PROPOSAL

A. Project Purpose

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

The western pond turtle (*Emys marmorata,* WPT) is one of the rarest species in coastal San Diego County south of Marine Corps Base Camp Pendleton (MCBCP). Recent studies in the Multiple Species Conservation Program (MSCP) region of San Diego detected only six WPT localities (of which only three had females), the largest population estimated to be between 30-81 individuals and no populations showing recruitment (Madden-Smith et al. 2005). Very few stable populations still exist elsewhere in San Diego County and WPT are poorly understood in many of the coastal areas outside of the MSCP (Brattstrom & Messer 1988, Madden-Smith et al. 2005). WPT populations (and other native aquatic species) are heavily impacted by invasive (weedy) species in the riparian habitat which include invasive turtles, bullfrogs, largemouth bass, sunfish and crayfish. Much like invasive plants, these aquatic invasives can spread throughout the riparian areas and directly impact the natives through predation and also indirectly through competition (Moyle 1973; Brattstrom & Messer 1988; Holland 1991, 1994). Similar to revegetation efforts, successful WPT management and restoration efforts include removal of aquatic invasive species (Spinks et al. 2003). However, where these management activities should be applied in San Diego County between MCBCP and the MSCP region is unknown. Before successful active management can be implemented in the northern coastal drainages of San Diego County, the distribution and status of WPT and aquatic invasives must be determined and suitable habitat must be identified.

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?

The western pond turtle is California's only freshwater turtle. Based on recent work, three out of four genetically distinct lineages of WPT occur in southern California (Spinks and Shaffer 2005). The remaining lineage occurs from central California up to Washington. This high genetic diversity in southern California is the result of a long and complex genetic history, heightening the need for conservation in the south coast region (Spinks and Shaffer 2005). Furthermore, genetic diversity in San Diego County south of Marine Corps Base Camp Pendleton is high relative to other areas in WPT range analyzed to date (Markert et al. 2011, Spinks and Shaffer 2005).

Western ponds turtles were historically abundant in coastal drainages in and around San Luis Rey River; however, very few WPT have been observed in recent years (Madden-Smith et al. 2005, Spinks et al. 2003). Outside of Sycuan Peak Ecological Reserve where there is ongoing restoration and headstarting for WPT, there has been no documented recent recruitment of WPT within the MSCP and MHCP regions with less knowledge of turtle populations (native or not) in the MHCP area (Madden-Smith et al. 2005). As a result, WPT is one of the rarest species covered by habitat conservation plans in San Diego County.

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)?

Many of the watersheds in coastal San Diego County south of MCBCP are severely impacted by aquatic invasive species that compete with, harass or cause direct mortality of native turtles (Bury and Germano 2008, Madden-Smith et al. 2005). Removal of invasive aquatic species can release this pressure on present WPT populations or prepare a site for reintroduction of WPT. However, in the MHCP region, the extent to which invasive species are impacting WPT and WPT habitat is unknown. Combining landscape scale assessments of WPT habitat with removing invasive species will be a large step toward management of this species.

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

Western ponds turtles are at high risk of extirpation in these drainages, if they are not already extinct in some locations. Having been severely impacted by invasive species, roads and recreation, the WPT is in need of active management for persistence in coastal San Diego County. Due to the fact that the San Diego County populations of WPT are severely fragmented and are suffering from the effects of introduced species (Madden-Smith et al. 2005, Bury and Germano 2008); aggressive and active management is needed to restore the populations of this species (Spinks et al. 2003). Loss of one or more of these WPT populations not only results in extirpation but also loss of genetic diversity that supports adaptive potential and may be important in WPT reintroductions (Gilpin and Soule 1986, Markert et al. 2010).

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)?

We plan to follow established protocols for detection of WPT and suitable habitat as well as detection and removal of invasive species (U.S. Geological Survey 2005). Removal of invasive aquatic species has had demonstrable success for increase in WPT activity and success (Madden-Smith et al. 2005, Spinks et al. 2003). The assessment conducted under this proposal will identify the species composition and distribution of invasives species, evaluate the quality of WPT habitat and locate extant populations of WPT. This will allow us to make efficient use of management resources to apply proven methods for invasive species removal and habitat restoration.

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)?

In order to allow efficient use of management resources and effective restoration in future stages of WPT management, we must determine where potential WPT habitat is located, conduct surveys to verify existing WPT populations, identify where removal and management of invasive species is feasible, and prioritize areas that have the greatest potential for restoration and management. These actions will be performed under this proposal.

We are coordinating with the Center for Natural Lands Management, California Department of Fish and Game, University of California San Diego natural Reserve System, the City of Oceanside, and other partners across land ownerships to assess waterways with a regional approach to invasives removal and management for WPT.

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?

This project addresses species-specific management for WPT by establishing a framework for restoration and management of WPT in the north county coastal drainages. In addition, we will map suitable aquatic habitat on the properties based on an established USGS habitat assessment protocol. This will allow us to focus restoration and management efforts in areas where suitable habitat exists. Areas of suitable habitat will be trapped for WPT and aquatic invasives. Any aquatic invasives captured during the surveys will be removed from the sites. In areas occupied by non-native turtles (e. g. red-eared sliders), most invasive turtles will likely be removed because doing so will increase the detectability of WPT. As a result of this effort we will identify and map existing WPT populations in the drainages. In addition, this will provide detailed information on distribution of native and invasive aquatic species and recommended further actions. The work performed in this proposal will allow us to identify and map the locations of invasive species. Different species differentially impact WPT and have different costs of removal. For example, large mouth bass have direct impacts on WPT recruitment by consuming juvenile turtles, but they can be more difficult and expensive to remove than invasive turtles which harass and compete with WPT. This information will allow us to develop an efficient, effective strategy for invasive species removal and control. Using the spatial informal on suitable habitat, invasive species, and existing WPT populations, will recommend management actions and prioritize sites for enhancement or restoration of WPT. Results of this work will be presented to land managers and the EMP Working Group and will contain a project summary in a "fact sheet" format.

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,
   b. number of proposed volunteer hours on project,
   c. use of signage and interpretation features to be used to educate public on purpose of project, and
   d. outreach efforts on public access, if proposed.

Aquatic turtles can be very charismatic which attracts a large number of interested parties and volunteers who can participate in turtle studies. We will include volunteers on the project with up to 850 volunteer hours expected. Many of the invasive turtle populations that impact WPT are the result of escaped or released pets and for this reason public outreach is critical to aquatic invasives management. We will provide outreach to the community through presentations to and coordination with local turtle and tortoise clubs and participation at local interest events including the San Diego Zoo's "Reptilemania". Additionally, USGS conducts outreach through press releases and social networking; project information will be shared with these resources.

B. Scope of Work by Task

Task 1. Habitat suitability surveys

Schedule: Notice to Proceed to 9 months from Notice to Proceed

Public and conserved lands along the coastal northern San Diego County drainages (Agua Hedionda, Buena Vista, Escondido, Pilgrim and San Marcos Creeks) (see Figure 1) will be assessed for habitat suitability for WPT using standard and established methods. Stream reaches and ponding areas will be mapped and surveyed according to the USGS Western Pond Turtle (Emys marmorata) Visual Survey Protocol for the Southcoast Ecoregion (USGS 2006a). Landscape and vegetation characteristics will be recorded including quantifying non-native vegetation. Water conditions and aquatic habitat characteristics will also be recorded. These assessments will be used to determine appropriate locations for trapping for Task 2.

Expected Results/Deliverables: Map of suitable habitat for WPT and prioritization of sites for initial surveys for WPT.

Task 2. Trapping for WPT and aquatic invasives

Schedule Notice to Proceed to 11 months from Notice to Proceed

Utilizing the mapping of suitable habitat for WPT from Task 1, potential habitat will be trapped to remove invasive species and to detect WPT utilizing the standardized USGS protocol for trapping of WPT (USGS 2006b). Baited hoop traps, minnow traps and seine and dip netting will also be used to detect invasive species to map distribution and abundance of aquatic invasives. The species composition, relative abundance and distribution within the watershed are important components of the overall threat of invasives to the WPT.

Expected Results/Deliverables: Distribution and status of native and invasive aquatic species. Removal of many of the aquatic invasives in the potential habitat for WPT.

Task 3. WPT Strategic Plan

Schedule: Notice to Proceed to 16 months from Notice to Proceed

A final report of findings will be presented to the EMP Working Group. This will contain a strategic management plan for WPT restoration and management in the coastal drainages of northern San Diego County south of MCBCP. The management plan will delineate current distributions of WPT and assess existing threats to WPT. Based on the population status, current threats and feasibility of management, sites will be prioritized for management actions including invasives removal. Maps of invasive and native species distributions and recommended future management activities will be produced and a project overview will be provided in a "fact sheet" format.

Expected Results/Deliverables: Strategic plan outlining current distribution and status of WPT, associated threats and recommended actions for management of WPT in north coastal San Diego County south of MCBCP. USGS fact sheet overview of the project.

Task 4. Quarterly reporting

Schedule: Notice to Proceed to 24 months from Notice to Proceed

Quarterly reports including project status and results in spreadsheet format will be submitted with invoices. Data will be summarized and submitted to BIOS.

Expected Results/Deliverables: Quarterly updates to the EMP Working Group including spreadsheets of results. Data submitted to California Department of Fish and Game's BIOS.

Task 5. Implementation of invasives removal

Based on the prioritization in the strategic management plan from Task 3, two locations will be selected and will be trapped, netted and manually surveyed intensively to remove invasive species in support of restoration of WPT. This will be the first year of implementation of the strategic management plan and will focus on the two highest priority sites in the assessment.

5.1 Trapping for WPT and aquatic invasives

Schedule Notice to Proceed to 11 months from Notice to Proceed

Utilizing the results of trapping in Task 2 and the prioritization in the strategic plan from Task 3, two high priority locations will be intensively trapped to remove aquatic invasives. Baited hoop traps, minnow traps and seine and dip netting will be in combination with manual capture to remove aquatic invasives in accordance with established USGS protocols (USGS 2006b, USGS 2006c). The species composition, relative abundance and distribution within the watershed are important components of the overall threat of invasives to the WPT.

Expected Results/Deliverables: Removal of aquatic invasives from two high priority sites as identified by Task 3.

5.2 Quarterly reporting

Schedule Notice to Proceed to 11 months from Notice to Proceed

Quarterly reports including project status and results in spreadsheet format will be submitted with invoices. Data will be summarized and submitted to BIOS.

Expected Results/Deliverables: Quarterly updates to the EMP Working Group including spreadsheets of results. Data submitted to California Department of Fish and Game's BIOS.

5.3 Final reporting and recommendations
Schedule Notice to Proceed to 11 months from Notice to Proceed

A final report of findings will be presented to the EMP Working Group. This will include discussion of results and recommended future actions. A project overview will be provided in a "fact sheet" format.

Expected Results/Deliverables: Report on the success of invasives control measures implemented and recommendations for further management actions for WPT in at the two high priority sites. USGS fact sheet overview of the project.

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	Year 2 Grant Request	Year 2 Match
1. Habitat suitability surveys	$11,825.88	$10,360.46	$1,472.40	$10,360.46	$1,472.40	--	--
2. Trapping for WPT and aquatic invasives	$59,184.47	$50,388.09	$8,834.40	$50,388.09	$8,834.40	--	--
3. WPT Strategic Plan	$34,310.37	$27,443.23	$6,867.14	$27,443.23	$6,867.14	--	--
4. Quarterly reporting	$2,813.18	$2,396.39	$416.79	$2,396.39	$416.79	--	--
5. Implementation of invasives removal							
5.1 Removal of aquatic invasives	$85,453.42	$75,373.42	$10,080.00	--	--	$75,373.42	$10,080.00
5.2 Quarterly reporting	$2,240.16	$1,823.37	$416.79	--	--	$1,823.37	$416.79
5.3 Final reporting and recommendations	$19,751.84	$16,880.97	$2,870.87	--	--	$16,880.97	$2,870.87
Total, Task 5	$109,645.42	$94,077.76	$15,567.66	--	--	$94,077.76	$13,367.66
SubTotal:	$215,579.32	$184,665.93	$30,958.39	$90,588.17	$15,390.73	$94,077.76	$13,367.66
Indirect Costs:	$86,995.18	$86,995.18		$42,675.62		$44,319.56	
TOTAL:	$302,574.50	$271,661.11	$30,958.39	$133,263.79	$15,390.73	$138,397.33	$13,367.66

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. Habitat suitability surveys	Notice to Proceed	9 months from NTP
2. Trapping for WPT and aquatic invasives	Notice to Proceed	11 months from NTP

3. WPT Strategic Plan	Notice to Proceed	16 months from NTP
4. Quarterly reporting	Notice to Proceed	24 months from NTP
5. Implementation of invasives removal	Notice to Proceed	24 months from NTP
5.1 Removal of aquatic invasives	Notice to Proceed	24 months from NTP
5.2 Quarterly reporting	Notice to Proceed	28 months from NTP
5.3 Final reporting and recommendations	Notice to Proceed	28months from NTP

E. Literature Cited

Brattstrom, B. H. and D. F. Messer. 1988. Current status of the southwestern pond turtle, *Clemmys marmorata pallida*, in southern California. Final report to California Department of Fish and Game. Contract C-2044. Sacramento, CA. 62 pp.

Brown, C.B., T.C. Owens and R.N. Fisher. 2010. Restoration of western pond turtles in the MSCP region of San Diego. Joint Meeting of Ichthyologists and Herpetologists, Providence, Rhode Island, 7-12 July 2010. http://www.werc.usgs.gov/ProductDetails.aspx?ID=4167

Bury, R.B. and D.J. Germano, 2008. *Actinemys marmorata* (Baird and Girard 1852)-western pond turtle, Pacific pond turtle. In: Rhodin, A.G.J., Pritchard, P.C.H., van Dijk, P.P., Saumure, R.A., Buhlmann, K.A., and Iverson, J.B. (Eds.). Conservation Biology of Freshwater Turtles and Tortoises: A Compilation Project of the IUCN/SSC Tortoise and Freshwater Turtle Specialist Group. Chelonian Research Monographs No.5, pp.001.1-001.9, doi:10.3854/crm.5.001.marmorata.v1.2008,http://www.iucn-tftsg.org/cbftt.

Gilpin M.E. and M.E. Soule, 1986. Minimum viable populations: processes of species extinction. In *Conservation biology: the science of scarcity and diversity*. Edited by Soule M.E. and M.A. Sunderland: Sinauer Associates Inc; 1986.

Harmsworth Associates and B. Goodman. 2006. Shady Canyon turtle pond mitigation monitoring annual report for July 2005 through June 2006. Prepared for The Irvine Company. 48 pp.

Holland, D. 1991. A synopsis of the ecology and status of the western pond turtle (*Clemmys marmorata*) in 1991. Report to National Ecological Research Center. United States Fish and Wildlife Service, San Simeon, California. 38 pp.

Holland, D. C. 1994. The western pond turtle: Habitat and history. Final report to U. S. Department of Energy, Bonneville Power Administration, Portland, Oregon. 303 pp.

Madden-Smith, M., E.L. Ervin, K.P. Meyer, S.A. Hathaway and R.N. Fisher, 2005. Distribution and Status of the Arroyo Toad (*Bufo californicus*) and Western Pond Turtle (*Emys marmorata*) in the San Diego MSCP and Surrounding Areas. Report for: California Department of Fish and Game County of San Diego.

Markert, J. A., C. W. Brown, M. J. Bagley, D. E. Nacci, J. S. Grear and R. N. Fisher, 2011. Genetic diversity and population resilience. Ecological Society of America Symposium—"Integrating evolution into policy: improved science-based decision-making for environmental stewardship. Austin, Texas, August 2011.

Markert, J.A., D.M. Champlin, R. Gutjahr-Gobell, J.S. Grear, A. Kuhn, T.J. McGreevy Jr, A. Roth, M.J. Bagley and D.E. Nacci, 2010. Population genetic diversity and fitness in multiple environments. BMC Evolutionary Biology, 10:205

Moyle, P. B. 1973. Effects of introduced bullfrogs, *Rana catesbeiana*, on the native frogs of the San Joaquin Valley, California. Copeia 1973:18-22.

Spinks, P.Q., G.B. Pauly, J.J. Crayon, and H.B. Shaffer, 2003. Survival of the western pond turtle *(Emys marmorata*) in an urban California environment. Biological Conservation No. 113 (2003), pp. 257-267.

Spinks, P.Q. and H.B. Shaffer, 2005. Rangewide molecular analysis of the western pond turtle (Emys marmorata): cryptic variation, isolation by distance, and their conservation implications. Mol. Ecol. 14:2047-2064

U.S. Geological Survey. 2006a. USGS western pond turtle (*Emys marmorata*) visual survey protocol for the southcoast ecoregion. U.S. Geological Survey protocol. San Diego, CA. 56 pp.

U.S. Geological Survey. 2006b. USGS western pond turtle (*Emys marmorata*) trapping survey protocol for the southcoast ecoregion. U.S. Geological Survey protocol. San Diego, CA. 30 pp.

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.

☒ 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.

Robert Fisher

Grantee Name/Title (print or type)

06/13/11
mm/dd/yy

Grantee Signature **Date**

Figure 1. Focal study areas include conserved lands along Agua Hedionda, Buena Vista, Loma Alta and San Marcos Creeks and in smaller tributaries to the San Luis Rey River.

June 7, 2011

Chris Brown
USGS Western Ecological Research Center
4165 Spruance Road, Suite 200
San Diego, CA 92101

RE: Permission to access our property for the purpose of conducting western pond turtle population, habitat suitability and invasives assessment.

Dear Chris:

Our organization, the Center for Natural Lands Management (CNLM), owns property in San Diego County that may be occupied or have suitable western pond turtle habitat. We understand that you and your staff at the USGS have applied for funding for a project that would attempt to determine the status of western pond turtles in the northern portion of San Diego County and to assess coastal drainages for potential invasives removal for restoration or enhancement for this species. Sites will be surveyed for native and invasive aquatic species to determine distributions and abundance throughout the available habitat.

We are providing, with this letter, conditional permission for you to have access to our property to conduct these surveys. We understand the conditions of our permission to include your attaining any additional (e.g., federal or state regulatory agency) permits required and notification to us prior to access to determine any special access conditions. At that time, we will develop and enter into a Site Access and Research Agreement with USGS for these studies.

We wish you success with your funding proposal.

Sincerely,

Markus Spiegelberg
Area Manager
Center for Natural Lands Management

June 13, 2011

Chris Brown
USGS Western Ecological Research Center
4165 Spruance Road, Suite 200
San Diego, CA 92101

RE: Permission to access our property for the purpose of conducting western pond turtle population, habitat suitability and invasives assessment.

Dear Chris:

The Natural Reserve System of the University of California, San Diego, owns property in San Diego County that may be occupied by or have suitable habitat for western pond turtle. We understand that USGS is applying for funding to determine the status of western pond turtles in the northern portion of San Diego County and to develop amanagement strategy for western pond turtles in the coastal drainages of northern San Diego County. Sites will be surveyed for native and invasive aquatic species to determine distributions and abundance throughout the available habitat.

We are providing, with this letter, permission for you to access the Dawson-Los Monos Canyon Reserve to conduct these surveys conditional upon required regulatory permitting and completion of specific use applications and waivers.

Best wishes,
Isabelle Kay

Academic Coordinator and Reserves Manager
Natural Reserve System
University of California,
9500 Gilman Drive
La Jolla, CA 92093-0689