

# **APPENDIX I**

**TABLE OF BIOLOGICAL OPINIONS, TERMS AND CONDITIONS,  
AND CONSERVATION MEASURES  
AND  
MINIMIZATION, MITIGATION, MONITORING, AND REPORTING TRACKING SHEET**



## Appendix I

### Table of Biological Opinions, Terms and Conditions, and Conservation Measures

**Table I-1: Active Biological Opinions, Terms and Conditions and Conservation Measures on Naval Air Station North Island\*\***

Agreement Summary	Conservation Measures	Terms and Conditions
<b>Biological Opinions Issued by U.S. Fish and Wildlife Service</b>		
<ul style="list-style-type: none"> <li>Biological Opinion 1-1-80-F-18 1980 for helicopter maintenance and training facility (MAT) repair project at NASNI. March 1980</li> </ul>		
<ul style="list-style-type: none"> <li>Biological Opinion 1-1-82-F-123 (“MAT BO”) 1983 on the MAT Repair/Lamps MKIII Project at NASNI, a helicopter maintenance and training facility.</li> <li>Develop designated Least Tern nesting sites to mitigate for loss of existing nesting area due to completing MAT repairs and construction of Light Airborne Multipurpose System facilities. Alternate nesting sites designated after 1980 BO were determined to be unsuccessful in benefitting the Least Tern. March 1983.</li> </ul>	<p>Agreements included preserving, indefinitely the 21.55 acre Least Tern nesting site on NASNI (the MAT site) and excluding public access on the Delta Beaches under an MOU between the USFWS and NAB.</p>	
<ul style="list-style-type: none"> <li>Biological Opinion (1-6-03-F-3452.1), 8 May 2003.</li> <li>Endangered Species Consultation on Military Training Operations on the Silver Strand and Naval Air Station north Island (NASNI) and Associated Management Strategies for the California Least Tern and Western Snowy Plover during 2003 Breeding Season at Naval Amphibious Base, Coronado; Naval Radio Receiving Station, Imperial Beach; and NASNI, San Diego; San Diego County,</li> </ul>	<p>Conservation Measures currently applicable to NASNI and not superseded by subsequent BO’s include:</p> <ol style="list-style-type: none"> <li>(Conservation Measure 6) Predator control to manage southern fire ants, field ants, Argentine ants, and pyramid ants found on North and South Delta Beach, NAB will be implemented prior to and during the Snowy Plover and Least Tern nesting season.</li> <li>(Conservation Measure 13) Site preparation will be performed on Least Tern and Snowy Plover nesting colony sites located on Naval property including the “MAT” site on NASNI, and North and South Delta Beach on NAB. Site preparation includes grading or mowing to remove annual plant growth, inspection/replacement or reinstallation of chick barriers around the perimeter of the nesting colony, inspection/repair/replacement of nest site grid poles and placement of chick shelters throughout the nesting colony.</li> </ol>	<p>Terms and Conditions from this BO currently applicable to NASNI and not superseded by subsequent BO’s include:</p> <ul style="list-style-type: none"> <li>(Conservation Measure 6): in addition to NAB, the Navy shall have the biological monitors for the NASNI “MAT” site, and the ocean beach areas of NASNI and NRRF, determine if predatory ants are a problem to Least Terns and Snowy Plovers at these nesting locations. If it is determined that predation to chicks or eggs from ants is occurring, the Navy and Service shall meet to discuss potential remedies.</li> <li>(Conservation Measure 13): expand to include site preparation of Least Tern and Snowy Plover nesting sites with Service-approved herbicide(s) to control annual plant growth.</li> <li>The Navy shall implement a comprehensive biological monitoring program that ensures the identification of Least Tern and Snowy Plover</li> </ul>

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California,	<p>3. (Conservation Measure 14) Biological monitoring of the Least Tern and the Snowy Plover during the breeding season will be performed by qualified experts at all nesting sites on NASNI, NAB, and NRRF. Monitoring at NAB ocean beach for Least Terns and Snowy Plovers would be three to five days a week (e.g., with three days a week from April 15 to April 30, five days a week from May 1 to July 21, and three days a week from July 22 to August 31). Monitoring at NAB North and South Delta Beach for Least Terns and Snowy Plovers would be three to four days a week (e.g., three days a week from April 15 to April 30, four days a week from April 30 to July 31, and three days a week from July 31 to August 31). Monitoring at the NASNI "MAT" site for Least Terns would be three to four days a week (e.g. with three days a week from April 15 to April30, four days a week from April30 to July 31, and three days a week from July 31 to August 31). Monitoring at NASNI ocean beach for Snowy Plovers would be 2.25 days a week from March 1 to August 31. Monitoring at NRRF for Snowy Plovers would be 3 days a week from March 1 to August 31.</p> <p>4. (Conservation Measure 15) Banding of Least Terns and Snowy Plovers adults and chicks will be done in conjunction with monitoring of nests at NASNI, NAB, and NRRF. Due to the large number of nests that must be monitored, not all adults.”</p>	<p>nesting locations and the overall number of adult breeding pairs and fledglings produced at the NAB nesting colonies, including North Delta Beach, South Delta Beach, and the ocean beach; NASNI "MAT" site and ocean beach; and NRRF. The Navy shall prepare reports for the Service at a minimum of twice a month. In addition, the monitoring effort shall be summarized in a written report that is submitted to the Service when a Final Report for 2003 Least Tern and Snowy Plover breeding season is received by the Navy. The biological monitors shall also include in their report: (a) an evaluation of the effectiveness of the 30- meter buffer surrounding each Snowy Plover nest and the wooden stakes or tongue depressors used to mark Least Tern nests; (b) when the first adult birds arrive, number and location of nests, number of individual nests, estimated number of fledglings produced, number of relocated nests, success of all relocation efforts, level of incidental take associated with training at NAB, NASNI, and NRRF, and when discernible the amount and type of predation events that occur; (c) an evaluation of the success of the 15-acre site that was graded and re-contoured in 2002 and the area enhanced by 4,560 cubic yards of sand to enhance nesting substrate in 2003 at South Delta Beach, along with other conservation measures being implemented by the Navy; (d) number of captive bred fledglings and their band numbers that are released; (e) when possible, any observations of captive-reared fledglings in the wild, especially as relating to the condition and survival of these birds (e.g., data on: the interaction of fledglings with wild Least Terns, foraging behavior of captive birds compared to wild birds, mortality and cause of death of captive birds when it can be determined, and locations where captive-reared Least Terns are observed); and (f) the interactions of gull-billed terns and peregrine falcons with Least Tern and Snowy Plover nesting colonies.</p> <ul style="list-style-type: none"> <li>The Navy shall send written information to military personnel and their families in military housing adjacent to NAB ocean beaches advising them of the nesting season and the presence of Least Terns and Snowy Plovers. The Navy will also distribute educational materials at NAB and NASNI Morale, Welfare and Recreation facilities to inform users of the presence of Least Terns and Snowy Plovers, and how to avoid disturbing any nest.”</li> </ul>
<ul style="list-style-type: none"> <li>Biological Opinion (1-6-03-F-3452.1)</li> <li>Endangered Species Consultation and Draft Biological Opinion on Military Training Operations during 2004 Breeding Season at Naval Amphibious Base,</li> </ul>	<p>Conservation Measures currently applicable to NASNI and not superseded by subsequent BO's include:</p> <ul style="list-style-type: none"> <li>Site preparation, in accordance with the Biological Opinion on MAT Development Program (1-1-82-F-123) and the California Least Tern MOU would be performed on the "MAT" site on NASNI. Continued maintenance of this site offsets the effects of previous construction projects (Navy's Light Airborne Multipurpose System (LAMPS MKIII))</li> </ul>	

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<p>Coronado; Naval Receiving Facility, Imperial Beach; and Naval Air Station, North Island; San Diego County, California. 9 August 2004.</p>	<p>facilities development program) and associated loss of habitat, as well as some of the effects of the current proposed action. Site preparation includes grading or mowing to remove annual plant growth, inspection/replacement or reinstallation of chick shelters around the perimeter of the nesting colony, inspection/repair/replacement of nest grid poles and placement of chick shelters throughout the nesting colony.</p> <ul style="list-style-type: none"> <li>• NASNI "MAT" site monitoring for Least Terns would be conducted three days a week from April 15 to April 30, four to five days a week from May 1 to July 31, and three to four days a week from July 31 to August 31.</li> </ul> <p>Control of mammalian and avian predators of the Least Tern and Snowy Plover would be performed by Wildlife Services on the Pacific ocean beaches of NASNI and on the "MAT" site. In addition, the Bird/Animal Airstrike Hazard Program (BASH) would be conducted on the airfield adjacent to beaches utilized by Least Terns and Snowy Plovers."</p>	
<ul style="list-style-type: none"> <li>• USFWS Letter FWS-SDG-3908.3. 1 April 2005.</li> <li>• Biological opinion on the effects of ongoing airfield operations and management strategies on the Western Snowy Plover at NASNI.</li> </ul>		<p>See entry for FWS-SDG-3908.4</p>
<ul style="list-style-type: none"> <li>• USFWS Letter FWS-SDG-3908.4.</li> <li>• Amendment to the 2005 Biological Opinion on the Navy's proposed and ongoing operations and 2005 management strategy for the Western Snowy Plover and California Least Tern at Naval Air Station North Island, 20 June 2005.</li> </ul>		<p>1. To implement reasonable and prudent measure one, the Navy, including all of their agents and contractors, shall adhere to the following terms and conditions:</p> <p>The Navy shall implement the Avoidance and Minimization Measures in the "Description of the Proposed Action" above, subject to the following modifications:</p> <ol style="list-style-type: none"> <li>Stakes that delineate plover nests shall remain in place for 7 days post-hatch or as long as plovers are detected within 15 meters of the staked area during monitoring visits to provide refuge from foot/vehicle traffic to plover chicks on the beach and to protect the nest, in the event of re-use. The Navy shall place a Mammalian Exclosure or Mini Exclosure (ME) over plover nests on NASNI in such instances where an ME would potentially benefit the nest/nesting pair. This may be necessary to protect nests from gull-billed tern predation, dogs, or other mammalian predators. Placement of an ME may also help reduce the potential for inadvertent destruction from foot traffic. This term and condition modifies the current proposal for maintaining protective stakes for 7 days post-hatch.</li> <li>The Navy shall assure that the future hatching, fledging and release potential of any eggs collected from the NASNI airfield will be</li> </ol>

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		<p>conducted in a manner and with sufficient resources and oversight to maximize the likelihood of success. In doing so, the Navy shall assure that Project Wildlife, or other cooperators, as necessary, are supplied with adequate resources to successfully implement this term" and condition. Collection of eggs shall occur after the clutch is complete (typically after 3 eggs are laid), except in a circumstance where an incomplete clutch poses an immediate and imminent threat to aircraft safety. Eggs shall be collected and moved in a brooder box, or other suitable means that will maximize potential for success by a qualified professional contracted by the Navy (Zoological Society of San Diego). Incubation, rearing, and release of fledglings shall follow previously successful protocols. All fledglings released shall be uniquely banded to allow future identification and assessment of success. Release of fledglings shall occur soon after fledging when fledglings have developed feeding and flight skills necessary for survival. Release of fledglings shall be planned for beach segments near San Diego Bay or Mission Bay in areas that benefit from predator management, or have low documented levels of predation. The Navy shall not preclude the release of chicks on lands administered by Naval Base Coronado (NBC) if these sites evidence the lowest levels of predation and minimum opportunities for survival for Snowy Plover chicks.</p> <p>c. The Navy shall prepare an end of the year report that documents, at a minimum, the locations of nests collected, number of nests/eggs collected, the hatch date of each egg collected, the unique band combination given each captive-reared chick, the approximate fledging data and the release date/location of each fledgling, and suggestions to improve the efficacy of this process if used in future years. This information is necessary to assess the amount of incidental take, and the effectiveness of using this approach to minimize impacts.</p> <p>d. The Navy shall contact the Service and report the circumstances that necessitates movement of any plover nest. This will be done with submittal of the Navy's weekly reports to the Service. If relocation is necessary, nests moved shall be relocated the shortest distance possible into suitable habitat within the boundaries of NASNI to increase the chances for nest success.</p> <p>e. The Navy shall implement a comprehensive biological monitoring program that ensures the identification of Snowy Plover nesting locations and the overall number of adult breeding pairs and fledglings produced on NASNI beach. The Navy shall prepare reports for the Service at a minimum of twice a month. In addition, the monitoring results shall be submitted to the Service when a draft</p>

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		<p>report for 2005 Least Tern and Snowy Plover breeding season is received by the Navy. The biological monitors shall also include in their report: (a) an evaluation of the effectiveness of the 30-meter buffer surrounding each Snowy Plover nest and the wooden stakes or tongue depressors used to mark Least Tern nests; (b) when the first adult birds arrive, number and location of nests, number of individual nests, estimated number of fledglings produced, number of relocated nests, success of all relocation efforts, level of incidental take associated with training at NASNI, and when discernible the amount and type of predation events that occur; (c) an evaluation of the success of the 4.13 acre site that was enhanced adjacent to the rifle range in 2005; (d) when possible, any observations of captive-reared plovers or Least Terns in the wild, especially as relating to the condition and survival of these birds (e.g., data on the interaction of fledglings with wild Least Terns or Snowy Plovers, foraging behavior of captive birds compared to wild birds, mortality and cause of death of captive birds when it can be determined, and locations where captive-reared Least Terns are observed); and (e) the interactions of gull-billed terns and peregrine falcons with Least Tern and Snowy Plover nesting colonies.</p> <p>f. The Navy shall assure that all personnel who stay at the Navy Lodge between March 1 and August 31 receive or are shown a map delineating plover protection areas as well as basic information concerning plover status and biology.</p> <p>2. To implement reasonable and prudent measure two, the Navy, including all of their agents and contractors, shall adhere to the following terms and conditions:</p> <p>a. To reduce the impact of harassment from the NASNI airfield, disturbances on the recreational beach, the Navy shall provide conditions conducive to nesting for the approximately 12-13 pairs of plovers that have nested on NASNI since 2002. Based on plover densities at NAB, densities cited in the Birds of North America species account, and the density of plovers that have previously nested on the airfield and in the protected area in front of Building 710, plovers nest territories occupy area ranging from .5 to 1 ha (1.2-2.4 acres/pair). Approximately 14.4-33.6 acres of undisturbed habitat is likely necessary to encourage breeding behavior and nest initiation by the 12-13 pairs of plovers breeding at NASNI. Using the minimum territory size estimate (1.2 acres pair), and the maximum pair estimate (13 pairs), 15.6 acres of undisturbed habitat should be adequate to provide conditions conducive to nesting for the breeding plovers at NASNI, though greater acreage consistent with the lower nesting densities cited above may be needed if the acreage provided</p>

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		<p>does not support 12-13 pairs. The beach area at NASNI, most notably the western end of the beach, is limited in size/width due to unusually high tides, storms, and beach erosion during 2005 and is unlikely to support successful plover nests. The Navy has identified 14.9 acres of beach and adjacent habitat that can be protected from foot traffic and is consistent with Navy management. Accordingly, the Navy shall:</p> <ol style="list-style-type: none"> <li>1) Protect (from foot/vehicle traffic) and symbolically fence (using staking and signage) at least 14.9 acres of appropriate plover habitat (measured above the mean high tide line) in the vicinity of the airfield (including beach and/or upland areas) from disturbance from at least March 1 to August 15. This acreage may include the area west of the pistol range, and the marked area directly in front of Building 710. Although Zuniga Beach once comprised an area of approximately 15 acres, it is currently very narrow due to sand loss associated with winter storms, and may not be considered as part of the protected habitat since it is unlikely to support successful plover nests.</li> <li>2) Discontinue vehicle use on the NASNI beach except in instances where vehicle use is conducted as part of military training or for health and human safety needs. If lifeguards require vehicle use, they shall be educated about the Snowy Plover biology and conservation needs on NASNI, and encouraged to designate and use fixed routes to minimize beach disturbance.</li> <li>3) Enforce the existing NASNI leash instruction on the NASNI Beach.</li> <li>4) Assure that future uses of areas adjacent to those designated for plover nesting are conducive to plover nesting. This may include establishment of height, noise, or lighting guidelines on future projects. It is not considered possible to reduce the height of the current soil/debris mounds adjacent to the pistol range at this time due to the current contract under which the work is being conducted (Tammy Conkle, pers. comm.). This material will, however, be removed on July 17, 2005. This date follows the majority of the plover breeding season.</li> </ol>
<ul style="list-style-type: none"> <li>• SFWS Letter FWS-SDG-11B0284-11F0424: Amendments to the 2005 Biological Opinion on Ongoing Operations and Management Strategies at Naval Air Station North Island, 3 June 2011.</li> </ul>		<ol style="list-style-type: none"> <li>1. The following is added as an additional Term and Condition to the 2005 Biological Opinion: The Navy will submit annual reports to the Service with the following information: <ol style="list-style-type: none"> <li>a. A table depicting the number of Least Tern and/or Snowy Plover carcasses retrieved from the airfield during monitoring year;</li> <li>b. The type of aircraft, if known, involved in each collision;</li> <li>c. The natal origin, if available via band recovery, of each Least Tern</li> </ol> </li> </ol>



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		<p>and/or Snowy Plover killed on the airfield; and</p> <p>d. A map depicting the location(s) of all retrieved Least Tern and/or Snowy Plover carcasses.</p>
<ul style="list-style-type: none"> <li>• Biological Opinion FWS-SDG-08B0503-09F0517. 7 July 2010.</li> <li>• Biological Opinion on the U.S. Navy SSTC Operations</li> <li>• This BO was the result of a programmatic level consultation that addresses training activities on NASNI, NAB Coronado, SSTC-N and SSTC-S. Species considered during this consultation include Western Snowy Plover, California Least Tern, California Clapper Rail, salt marsh bird's-beak, green sea turtle, and San Diego fairy shrimp. Of these the effects on the Western Snowy Plover, the California Least Tern and the San Diego fairy shrimp were evaluated within this BO.</li> </ul>	<p>See entry for FWS-SDG-08B0503-09F0517, 7 July 2010 under Table I-2 for measures applicable to NASNI.</p>	<p>1. The Navy will minimize the potential for incidental take of Least Tern and Snowy Plover nests and chicks at SSTC-N and SSTC-S beaches during the breeding season; 2. The Navy will monitor training activities to ascertain the impact of training activities on Least Tern and Snowy Plover distribution within the action area and report any observed incidental take to the Service annually. 3. The Navy will use scheduling and/or planning measures to minimize the potential for incidental take of the San Diego fairy shrimp; 4. The Navy will establish the baseline distribution and abundance of San Diego fairy shrimp and condition of their vernal pool habitat at SSTC-S Inland and monitor training activities to ascertain the impact of training activities on San Diego fairy shrimp distribution and abundance within the action area. The Navy will report the monitoring results and any observed incidental take to the Service annually, and 5. The Navy will manage the vernal pools occupied by San Diego fairy shrimp to minimize any training impacts detected by monitoring.</p> <p>See entry for FWS-SDG-08B0503-09F0517, 7 July 2010, under Table I-2 for measures applicable to NASNI.</p>
<ul style="list-style-type: none"> <li>• USFWS Letter FWS-SDG-390S.3 1 August 2007.</li> <li>• Amendments to Navy Lodge Expansion Project, Naval Air Station North Island, Naval Base Coronado, San Diego County, California (FWS-SDG-390S.6)</li> </ul>		

\*\*For Unofficial Use Only. Consult with NBC Natural Resources manager for current information.\*\*

**Table I-2: Active Biological Opinions, Terms and Conditions and Conservation Measures on Naval Amphibious Base Coronado and Silver Strand Training Complex\*\***

Agreement Summary	Conservation Measures	Terms and Conditions
<b>Biological Opinions Issued by U.S. Fish and Wildlife Service</b>		
<ul style="list-style-type: none"> <li>• Biological Opinion FWS-SDG-08B0503-09F0517, 7 July 2010.</li> <li>• Biological Opinion on the U.S. Navy SSTC Operations</li> <li>• This BO was the result of a programmatic level consultation that addresses training activities on NASNI, NAB Coronado, SSTC-N and SSTC-S. Species considered during this consultation include Western Snowy Plover, California Least Tern, California Clapper Rail, salt marsh bird's-beak, green sea turtle, and San Diego fairy shrimp. Of these effect to the Western Snowy Plover, the California Least Tern and the San Diego fairy shrimp were evaluated within this BO</li> </ul>	<p>The following measures have been incorporated into the project descriptions by the Navy to avoid and minimize potential effects to the Least Tern and the Snowy Plover.</p> <ul style="list-style-type: none"> <li>• Helicopters will not hover over the beach and will land only at the existing designated landing sites at NASNI/NAB and SSTC-S Inland.</li> <li>• Military working dogs require daily exercise, and they will remain on a maximum 3 m (10 ft) leash under supervision of a handler when on the beach for exercise or training activities.</li> <li>• The Navy will use SSTC-N Beach and SSTC-S Beach for exercising military working dogs. When on the beach, they will run primarily on the hard pack sand (i.e., below the mean high tide line). Occasional exercise may also be necessary on the soft sand on the sand road at SSTC-N, and/or above the mean high tide line at both locations, to avoid damage to dogs' paws and knees. Dogs and handlers will avoid any marked and buffered plover nests.</li> <li>• No dog exercise will occur in the southern 3 lanes at SSTC-N (i.e., Blue 2, Orange 1, and Orange 2) during the plover and tern breeding season until: 1) completion of a study to assess the effects of dogs on tern and plover behavior and productivity and 2) coordination with the Service regarding additional effects and necessary conservation measures identified as a result of the study. The study design will include the southern 3 beach lanes at SSTC-N as a "control" area.</li> <li>• When using SSTC-N for dog exercise, handlers and dogs will enter/exit the beach at beach lane Yellow 1 to conduct runs. If it is necessary to cross the beach from the intertidal area to the sand road, handlers and dogs will cross at the existing route that lies immediately to the north of the demo pit until completion of the study and coordination with the Service.</li> <li>• If training is conducted at SSTC-S, handlers and dogs will enter/exit the beach at Camp Surf or the middle gate at SSTC-S. Since dogs cannot pass other dogs on their route and no sand road is present at SSTC-S, only one military working dog will be exercised at a time primarily below the beach crest on the hard pack sand, but occasionally exercise will be necessary on soft sand. Dog handlers at SSTC-S will avoid any marked and buffered plover nests.</li> <li>• If training activities are planned for the same time period, they will be</li> </ul>	<p>The following are terms and conditions that are implemented for the Western Snowy Plover:</p> <ol style="list-style-type: none"> <li>1. The Navy will consider the tide conditions when developing training schedules, and schedule training activities that could be conducted on the hardpack during low tides to the maximum extent consistent with training needs.</li> <li>2. The Navy will mark and buffer, as described in the proposed action, up to 22 concurrent Snowy Plover nests established at SSTC-N and SSTC-S Beaches plus any additional nests that exceed 22 that are initiated in beach lanes Orange 1 and Orange 2.</li> <li>3. Under baseline conditions, the southern 3 beach lanes are marked to facilitate avoidance of tern and plover nests. Since the Navy has determined that the level of marking done under baseline conditions presents an impediment to training, the Navy will develop a marking strategy to delineate Least Tern and Snowy Plover nesting areas that does not encumber training activities. Such a marking strategy may entail signage affixed to existing beach lane sign posts and a limited number of additional markers, as determined appropriate by Navy staff.</li> <li>4. The Navy will delineate the boundary of SSTC-S that parallels the mean high tide line in a manner that does not encumber training exercises.</li> <li>5. If relocation of any Least Tern or Snowy Plover nest/egg is necessary as a protective measure, each nest/egg will be relocated the shortest distance possible into suitable habitat by Service-approved monitors to increase the chances for nest success. The weekly reports to be submitted to the CFWO under the proposed project will include: a) date the nests/eggs were moved; b) number of nests/eggs moved; c) original and ending location of nests/eggs moved; and (d) distance the nests/eggs were moved.</li> <li>6. NBC Natural Resources staff will brief all dog handlers, annually, or more frequently if necessary, of the following guidelines pertaining to the use of military working dogs on SSTC beaches.             <ol style="list-style-type: none"> <li>a. Military working dogs and dog handlers will be notified weekly of the locations of plover nests and, to the maximum extent possible, remain a minimum of 30 m (90 ft) from markers that delineate the locations of nesting plovers. 1.6.2 If physical conditioning on soft pack sand is necessary, handlers and</li> </ol> </li> </ol>

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	<p>compared and those that require use of larger beach areas will be preferentially scheduled on lanes that contain fewer nests, where it doesn't adversely impact training needs or realism. If training activities are scheduled during time periods when they are not competing with other activities, each activity will be scheduled in the suitable beach lane that supports the fewest Least Tern nests as long as long such scheduling doesn't adversely impact training needs.</p> <ul style="list-style-type: none"> <li>• Beach lanes Blue 2, Orange 1, and/or Orange 2 will be used for training during the tern and plover breeding season only if beach lanes White 1 and White 2 and Purple 1 and Purple 2 are unavailable or less suitable for the training activity in question, and beach lanes Red 1 and Red 2, Green 1 and Green 2, and Blue 1 are unavailable when additional training lanes are needed. The southern 3 beach lanes will be opened one at a time, based on need, with Blue 2 being opened first, Orange 1 being opened second, and Orange 2 being opened last. If one of the southern 3 beach lanes is opened to accommodate a training event, it will be closed again after the training event. After each training event, any incidental take that may have occurred will be documented during routine monitoring. The lanes may be reopened, as necessary, to accommodate other training events that meet the criteria above.</li> <li>• Beach lanes Blue 2, Orange 1, and/or Orange 2 may also be used in lieu of other available lanes in instances where characteristics of these lanes, when compared to all other available lanes, make the lanes more appropriate for meeting training needs. Examples of lane characteristics that may result in training need include: presence of sand bars or holes, slope or depth of beach, and proximity to other training activity.</li> <li>• Each plover nest will be surrounded by a square buffer that is approximately 30-meter (m) [98.4-foot (ft)] on each side, and is marked by blue flexi stakes. The number of nests that will be marked and protected on the SSTC-N and SSTC-S Beaches will not exceed 22 at any given point in time. The total number of nests that will be marked and protected over the course of the 6 month breeding season is likely to be more than 22. Once chicks hatch, markers will be removed when biologically appropriate to minimize impacts to plovers, as determined by biological monitors in conjunction with Navy Natural Resources personnel.</li> <li>• The Navy proposes to allow off-road foot traffic training activities in the portion of SSTC-S inland that supports vernal pools that are occupied by San Diego fairy shrimp when the vernal pools are dry. Whether or not pools are dry will be determined by personnel under the guidance of the Navy's botanist or wildlife biologist. To assure that activities do not extend into occupied vernal pools when they are wet, the Navy will map vernal pools at SSTC-S Inland and subdivide the area into training areas</li> </ul>	<p>military working dogs will run on the sand road (SSTC-N) or within 20 feet of the hard pack sand to reduce the disturbance and impact to nesting tern and plovers. Captain Yancy Lindsey (FWS-SDG-08B0503-09F0517) 123</p> <ul style="list-style-type: none"> <li>b. At SSTC-N, military working dogs will exercise primarily between beach lanes Yellow 1 and Blue 1, where they may cross the beach to get to the sand road at the existing route immediately to the north of the demo pit. The Navy will not conduct physical conditioning using dogs in the southern 3 beach lanes until: a) completing a study to evaluate the effects of military working dogs on terns and plovers and b) coordinating with the Service to develop conservation measures to minimize any additional effects.</li> <li>c. If military working dog training is requested as part of Platoon OTB activities at SSTC-N, the Platoon OTB activities will be scheduled in beach lanes Yellow 1, the northern half of Yellow 2, Green 1 or Green 2, pending the results of the Navy's study to evaluate the response of terns and plovers to military working dog presence.</li> <li>d. The Navy will coordinate with the Service in the development of the study to evaluate the effects of military working dogs on terns and plovers and will submit the study design and scope of work to the Service for review and approval. The Navy will allow the Service 30 days to submit comments and an additional 30 days to approve the final study design and scope of work.</li> </ul> <ol style="list-style-type: none"> <li>7. The Navy will coordinate with the Service in the development of the Long Term Habitat Enhancement Plan for SSTC and will submit the plan to the Service for review and approval. The navy will allow the Service 30 days to submit comments, and an additional 30 days to approve the final study design and scope of work.</li> <li>8. The Navy will include the following information in the yearly reports to be submitted to the Service under the proposed project: a) the number and distribution of terns and plovers observed in each training lane; b) the number of any dead or injured Least Terns or Snowy Plovers (including eggs, chicks or adults) observed in each training lane; c) the hatching rate of terns and plovers in each beach lane; d) maps of the locations of tern and plover roosts within the action area; e) the timing and number of training events within the southern 3 beach lanes, and other beach lanes, to the extent available; f) the date and condition of any dead or injured tern or plover; g) the fledging numbers at NASNI, SSTC-N, and SSTC-S; and h) any measures taken to prevent additional tern or plover death or injury.</li> <li>9. The Navy will ensure that biological monitors look for and document</li> </ol>

Agreement Summary	Conservation Measures	Terms and Conditions
	<p>that support groups of vernal pools. Training area boundaries will be based on the characteristics of vernal pools within the area and discernible geographic features, such as roads. If one pool in a particular training area is wet, training activities will remain outside that training area until all pools in the training area are dry.</p> <ul style="list-style-type: none"> <li>• The Navy will continue to prohibit: 1) training activities in and around all of the vernal pools when they are wet; and 2) driving of vehicles off of established roads at SSTC-S Inland, year round. Only emergency or security vehicles will infrequently be driven on unpaved roads. The NBC Botanist or Wildlife Biologist, or a qualified person overseen by the NBC Botanist or Wildlife Biologist will determine when the pools have dried enough to allow training.</li> <li>• Underwater detonation measures: If a training exercise entails the use of multiple detonations, the second (or third, etc.) detonation will occur either immediately after the preceding detonation (i.e., within 10 seconds of the preceding detonation), or after 30 minutes have passed. This measure is intended to reduce the potential impacts to any piscivorous (fish-eating) birds, including Least Terns and pelicans, that forage in ocean waters and/or are attracted by stunned fish within the sphere of influence of the detonation. A safety buffer zone [396.2 m (1,300 ft) radius for detonations occurring in 0 to 4 fathoms of water and 670.6 m (2,220 ft) radius for detonations in 4 to 12 fathoms of water] will be established around each detonation point. Assigned personnel will be trained to survey the safety buffer zone for birds prior to the detonation event.</li> <li>• Vehicle patrolling and LARC V Operator training will not occur in Red, Blue, or Orange beach lanes during the tern or plover nesting season to avoid incidental take from these intensive activities.</li> <li>• NASNI airfield mowing: The Navy will mow vegetated areas surrounding the NASNI airfield when 25 percent of the vegetation reaches 20-centimeters (cm) [8-inch (in)] or higher, as measured from the soil, to deter avian species that pose a bird airstrike hazard from using the areas. The mowing schedule will be coordinated with the NBC Botanist and Wildlife Biologist to minimize the potential for harm to plovers associated with this activity. The area to be mowed will be surveyed prior to mowing if habitat conditions suitable for nesting plovers are present.</li> <li>• The Navy will conduct beach clean-up on beach segments that support terns and plovers only between August 30 and March 1 to avoid disturbance to these species during the breeding season.</li> <li>• Mini-exlosures will be used to protect plover nests from mammalian and avian predators in instances where this technique appears beneficial.</li> </ul>	<p>the location of Least Tern or Snowy Plover nests, eggs and chicks prior to and after all military training exercises, to allow assessment of take associated with training activities.</p> <p>The following are terms and conditions that are implemented for the San Diego fairy shrimp:</p> <ol style="list-style-type: none"> <li>1. The Navy will avoid vernal pools occupied by San Diego fairy shrimp and their watersheds when designating parachute drop zones in SSTC-S Inland. The Navy will identify the vernal pools and assure that drop zones are located at least 30 m (100 ft) from each occupied pool.</li> <li>2. The Navy will consider the location of vernal pools occupied by San Diego fairy shrimp and their watersheds when planning training involving off-road foot traffic at SSTC-S Inland. To the maximum extent consistent with training need, off-road foot traffic will avoid the occupied vernal pools and their watersheds.</li> <li>3. The Navy will avoid the occupied vernal pools and their watersheds adjacent to the road at SSTC-S Inland (i.e., pools 1 through 7) year round to the maximum extent consistent with training need. Avoidance may be accomplished using markers, maps, GPS coordinates or any other means consistent with training needs.</li> <li>4. The Navy will assure that military dogs do not enter vernal pools at SSTC-S Inland year round.</li> <li>5. The Navy will mark pools to facilitate monitoring, and monitor the occupied vernal pools and their watersheds at the SSTC-S Inland to determine the baseline and ongoing conditions regarding: San Diego fairy shrimp distribution and abundance; botanical resources; topography; hydrology; and water chemistry (including salinity). The Navy will submit a draft monitoring plan to the Service and allow the Service at least 30 days to review and approve this plan. The plan will include a map of SSTC-S Inland training area boundaries and vernal pools and their watersheds, and the following provisions to establish baseline conditions: a) focused invasive plant survey including visual/photopoint inspection of vernal pools and their watersheds; b) plant, topographic, hydrological and water quality surveys/data; and c) protocol fairy shrimp surveys of the vernal pools. The plan will outline the qualifications necessary for personnel that determine if all pools in a given unit are “dry”, as well as the methodology for determining that the pools are dry. The plan will include the following provisions for monitoring ongoing conditions to determine if training impacts have occurred: a) focused invasive plant monitoring and visual/photopoint inspection of vernal pools and their watersheds annually; b) plant, topographic, hydrological and water quality monitoring every 2 years; and c) protocol fairy shrimp surveys of the vernal pools every 3 years. Annual monitoring reports will identify</li> </ol>

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	<p>Once chicks hatch, the exclosures will be removed within seven days, or when biologically practical, to minimize impacts to plovers as determined by biological monitors in conjunction with Navy Natural Resources personnel.</p> <ul style="list-style-type: none"> <li>• The Navy Natural Resources Office will continue to host an annual kickoff meeting(s) each year to outline natural resource needs and training/scheduling protocols designed to minimize the impacts of training to terns and plovers. Each command/tenant will participate in this kickoff meeting(s). During the breeding season kickoff meeting, the Navy Natural Resources Office will present information regarding the tern, plover, and management strategy to conserve these resources for that season.</li> <li>• The Navy Natural Resources Office will continue to submit to the SSTC scheduling office, on a weekly basis during the breeding season, an updated map that depicts the location of all active tern and plover nests.</li> <li>• The Navy will instruct Service-approved nest monitors to move Least Tern or Snowy Plover nests small distances, as necessary and appropriate, to reduce the potential for nest failure. For example, plover and tern nests located in existing Beach Crossing Lanes will typically be relocated to safer areas at the periphery of the Beach Crossing Lanes.</li> <li>• The Navy will also instruct Service-approved monitors to salvage plover eggs from nests that have been abandoned, to allow incubation, rearing, and release onto beaches within the action area. Eggs may likewise be collected and removed to captivity in instances where high tide events will submerge eggs, and no safe adjacent beach is present in which to relocate eggs out of the intertidal zone.</li> <li>• The Navy will continue to conduct predator management of mammalian and avian predators of the tern and plover at all nesting sites. The Navy will continue to manage southern fire ants (<i>Solenopsis xyloni</i>), field ants (<i>Lasius spp.</i>), Argentine ants (<i>Linepithema humile</i>), and pyramid ants (<i>Dorymyrmex spp.</i>) on the Delta Beaches and at NASNI prior to and during the plover and tern nesting seasons. The Navy will also continue to periodically use cameras to document predator activity and collect status information.</li> <li>• The Navy will continue to modify beach topography within SSTC-N Beach Lanes Green 1 and Green 2 prior to the breeding season to discourage establishment of tern and plover nests in these intensively used areas.</li> <li>• The Navy will continue to inspect and remove plant growth from North and South Delta Beach prior to the breeding season. In addition, the Navy will continue to replace or reinstall site grid poles and chick barriers around the site perimeter, use tern decoys, apply clean sand to,</li> </ul>	<p>management measures to minimize any training impacts detected by monitoring (e.g., spread of invasive weeds, change in pool topography). The plan will identify measures to minimize the potential for adverse effects to fairy shrimp from weed abatement, pool restoration or pool augmentation. The results of each year's monitoring will be submitted to the Service annually. Baseline monitoring will be completed prior to initiating training activities in or around the vernal pools at SSTC-S Inland.</p> <ol style="list-style-type: none"> <li>6. The Navy will install markers that indicate the pool number (as presented in DoN 2003) to aid monitoring.</li> <li>7. The Navy will implement management measures identified in annual monitoring reports to minimize any impacts detected by monitoring (e.g., invasive weed control, correcting changes in pool topography).</li> </ol>

Agreement Summary	Conservation Measures	Terms and Conditions
	<p>and place chick shelters throughout the nesting colony as necessary to prepare the site(s). The Navy will enhance substrate at the Delta Beaches and the NASNI Least Tern nesting site (MAT site) as opportunities arise with available sand or dredge spoil.</p> <ul style="list-style-type: none"> <li>• If a sand source is identified for application to the Delta Beaches or the MAT site, the Navy will first test the material to assure that it is: 1) appropriate size and quality for tern and plover nesting and 2) free from contaminants that may pose a risk to terns, plovers or other avian species that use the site. All work conducted to enhance the substrate by adding sand or dredge materials will occur between September 15 and February 15 each year.</li> <li>• The Navy will continue efforts to control invasive exotic plants on all SSTC ocean and bay-side beaches to improve habitat quality for terns and plovers. During invasive plant control, the Navy will mark and avoid the locations of select native plants, including coastal woolly-heads (<i>Nemacaulis denudata</i>), Brand's phacelia (<i>Phacelia stellaris</i>), and Nuttall's lotus (<i>Lotus nuttallianus</i>), to protect these rare plants and provide a mosaic of vegetation for chick shelter and escape cover.</li> <li>• To maintain plover foraging habitat within the SSTC action area, the Navy will not rake or otherwise remove kelp or natural marine vegetation from beaches within the action area.</li> <li>• The Navy proposes to develop and implement a comprehensive site enhancement plan for SSTC, including the Delta Beaches, portions of SSTC-N Beach, and portions of SSTC-S Beach. One goal of the Long Term Habitat Enhancement Plan will be to improve conditions for terns and plovers at the Delta Beaches and portions of the training lanes, in hopes that the nesting distribution will shift into these areas and reduce potential conflicts with training activities. The site enhancement plan will include dune restoration and establishment on the windward (western) edges of the Delta Beaches and some areas of SSTC-N Beach. The plan will include measures to ensure that terns or plovers that nest in restoration areas are not disturbed or harmed during restoration or site maintenance activities.</li> <li>• The Navy will continue efforts to eliminate recreational or casual use of the SSTC Beaches by the general public and by military personnel and their dependents from the Naval housing that is across the highway from beach lanes Blue 2, Orange 1, and Orange 2. The Navy will send a letter to military housing residents each year prior to the plover and tern breeding seasons to increase awareness about recreational use restrictions. The Navy will use security patrols and guards to reduce recreational and casual use of the SSTC-N and SSTC-S Beaches. The Navy will also install a guard shack with a camera and improved signage/markers at the southern end of SSTC-N Beach to discourage</li> </ul>	

Agreement Summary	Conservation Measures	Terms and Conditions
	<p>unauthorized access by people from Silver Strand State Beach.</p> <ul style="list-style-type: none"> <li>• All injured or sick Least Terns or Snowy Plovers will be taken to a wildlife rehabilitation center, preferably Project Wildlife, for rehabilitation. Plover eggs that have been collected due to abandonment will be taken to Project Wildlife, Sea World, or other permitted and qualified rehabber, as appropriate, for hatching and rearing. The Navy will continue to supply Project Wildlife, Seaworld, or other permitted rehabber, with fiscal resources to support this activity to the extent consistent with Navy funding abilities.</li> <li>• The Navy will continue the current intensive monitoring protocols for terns and plovers at all San Diego Bay NBC training locations.</li> </ul>	

\*\*For Unofficial Use Only. Consult with NBC Natural Resources manager for current information.”

**Table I-3: Active Biological Opinions, Terms and Conditions and Conservation Measures on at Naval Outlying Landing Field Imperial Beach**

Agreement Summary	Conservation Measures	Terms and Conditions
<b>Biological Opinions Issued and Informal Consultations Issued by U.S. Fish and Wildlife Service</b>		
<ul style="list-style-type: none"> <li>USFWS Letter FWS-SDG-11B0282-11I0303. Informal consultation regarding the possible effects of the proposed Helicopter Wings realignment and MH-60R/S Helicopter Transition on the federally endangered California Least Tern , Light-footed Clapper Rail, and threatened Western Snowy Plover. 3 June 2011.</li> </ul>		<ul style="list-style-type: none"> <li></li> </ul>

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**Table I-4: Active Biological Opinions, Terms and Conditions and Conservation Measures on at Camp Michael Monsoor\*\***

Agreement Summary	Conservation Measures	Terms and Conditions
<b>Biological Opinions Issued by U.S. Fish and Wildlife Service</b>		
<ul style="list-style-type: none"> <li>• Biological Opinion (FWS-SDG-4452.1), 20 April 2007</li> </ul>	<ol style="list-style-type: none"> <li>1. Clearly delineate construction sites by flagging, survey lath or wooden stakes.</li> <li>2. Contain sediment runoff within the limits of construction through the use of siltation fences, straw bales, sand bags, or silt ponds.</li> <li>3. Minimize production of dust by using biologically sound chemical treatments.</li> <li>4. Implement a habitat enhancement program to compensate for the loss of occupied Quino habitat associated with facilities construction.               <ol style="list-style-type: none"> <li>(1) The Navy would determine the location and extent of enhancement areas via consultation with the Fish and Wildlife Service and submit a Quino Checkerspot Butterfly Habitat Enhancement Plan that outlines location(s) of the enhancement area(s) and management strategies. The Navy would submit the Quino Checkerspot Butterfly Habitat Enhancement Plan prior to implementation of enhancement activities. The program would focus on control of invasive nonnative plants and augmentation of host plant populations.</li> </ol> </li> <li>5. Avoid direct impacts to Quino during construction by               <ol style="list-style-type: none"> <li>(1) Conducting surveys for host plants during the spring preceding construction. Surveys would occur within the construction footprint and a 10 m (32.8 ft) buffer around the limits of construction by a qualified biologist:</li> <li>(2) Examining any host plants detected within the construction footprint for larvae during the active season, and moving larvae detected to a pre-selected area at least 10 m (32.8 ft) from the edge of the construction limits.</li> </ol> </li> <li>6. Direct impacts to Quino associated with foot traffic would be addressed by monitoring and</li> </ol>	<ol style="list-style-type: none"> <li>1. To implement reasonable and prudent measure one, the Navy, including all of their agents and contractors, shall implement the Avoidance and Minimization Measures described in the BA and in the “Description of the Proposed Action” above, subject to the following specifications:               <ol style="list-style-type: none"> <li>1.a. The Navy shall have a biological monitor present during the initial phases of clearing for construction projects to assure that construction sites are appropriately marked and to assure adequate communication regarding conservation measures and location of Quino checkerspot butterfly habitat. The Navy shall brief all contractors or Navy construction personnel regarding the presence of Quino checkerspot butterflies and habitat at La Posta Mountain Warfare Training Facility (MWTf [Camp Michael Monsoor]), and the need to minimize the effective size of project footprints.</li> <li>1.b. The Navy shall conduct host plant and larval surveys, as proposed in the “Proposed Avoidance and Minimization Measures” (BA) (and subject to the following modifications) during spring for 1 to 3 years preceding construction to gain understanding of the host plant dynamics and Quino checkerspot butterfly use of construction sites and thereby allow for successful collection of Quino larvae and white snapdragon seed. Seed collection must be conducted by personnel qualified to identify, collect and properly store white snapdragon seed. The Navy shall collect seed from host plants identified within the construction footprint of the MTC and other facilities and utilize this seed to enhance Quino habitat outside the construction footprint. At least two years of seed collection prior to construction/disturbance of plants is likely necessary to collect sufficient seed for meaningful habitat augmentation. Based on meetings with the Range Manager, the area behind each range (safety arc) is a “no walk zone” and may provide an appropriate enhancement site to minimize the impact of unavoidable host plant impacts. The location of enhancement areas shall be identified as discussed in Term and Condition 1.d.</li> <li>1.c. Larval salvage must be conducted by personnel qualified to identify, handle, and maintain Quino larvae. The Navy shall also use a combination of techniques to relocate larvae outside the construction footprint, including Proposed Avoidance and Minimization Measure 5(1), “examine host plants detected within the construction footprint for larvae during the active season, and moving larvae detected to a preselected area (i.e. Quino Management Areas) at least 10 m (32.8 ft) from the edge of the construction limits”. Movement of larvae to the Quino Management Area must be conducted in accordance with the Habitat Enhancement Plan as described in Term and Condition 1.d. The Navy shall maintain larvae recovered from the construction limits through diapause and release these larvae to the Quino Management Areas, using qualified personnel. Post-diapause larvae or adult salvage work must be conducted in accordance with a Quino salvage protocol that may be included as part of the Quino Checkerspot Butterfly Habitat Enhancement Plan.</li> <li>1.d. As proposed in Proposed Avoidance and Minimization Measure 4, the Navy shall develop a comprehensive Quino Checkerspot Butterfly Habitat Enhancement Plan for La Posta</li> </ol> </li> </ol>

Agreement Summary	Conservation Measures	Terms and Conditions
	<p>adaptive management.</p> <p>(2) Surveys would be conducted following USFWS guidelines within all unsurveyed exclusive use parcels of the La Posta MWTF (approximately 2500 acres [1,012 hectares]). Surveys would be conducted in phases over a two-year period beginning in 2006 to accommodate funding constraints. Initial surveys would include areas surrounding locations where Quino were detected and would focus primarily on hilltops. Areas frequently used for training would be second in priority for surveys followed by areas used only occasionally and those completely unused.</p> <p>(3) If Quino are detected during focused surveys in areas used for training, the Navy would re-initiate consultation with the Service. If appropriate, a monitoring program would be established for Quino checkerspot butterfly and habitat at La Posta MWTF. The Quino population monitoring component of the program would detect changes in the population size and distribution. Because populations are known to fluctuate from year to year, changes in the local population would be compared to populations throughout the region.</p> <p>(4) Appropriate management activities would be implemented if training were determined to be the cause of negative impacts to the Quino checkerspot butterfly at the La Posta MWTF.</p> <p>In summary the area that the Navy proposes to withdraw and/or reserve for Navy training is comprised of the Existing Withdrawal parcel and Parcels C, E and G (lands under application of withdrawal), and Parcels A, B, D, F, and H (proposed for ROW access), a total of 5,554 acres (2,248 hectares). The area proposed for new facilities construction/expansion includes approximately 61.85 acres (25.03 hectares) of non-</p>	<p>MWTF, which will be included as part of the Integrated Natural Resources Management Plan for the installation. The Quino Checkerspot Butterfly Habitat Enhancement Plan shall use enhancement/restoration guidelines provided in the Recovery Plan, shall be consistent with the recovery objectives for the species and include: (1) identification local areas of importance to the species on the installation or in adjacent area proposed as Quino Management Areas, (e.g. all areas where Quino adults, larvae, eggs, and potential host plants have been identified), cryptobiotic crusts, hilltops, ridgelines, and topographic features of likely importance to the butterfly, potential corridors to other known occurrences, and overlap with training areas; (2) the boundaries of areas managed to support Quino (Quino Management Areas); (3) specific management strategies (i.e. specifics regarding weed management, host-species augmentation, application of controlled burns) that will be implemented to benefit Quino in areas of the base; (4) mission-compatible mechanisms for avoiding trampling of Quino checkerspot butterfly larvae, host plants, or cryptobiotic crusts in any key areas of importance; (5) a habitat monitoring program designed to detect any significant changes in Quino habitat that could lead to decline of populations at La Posta MWTF; (6) a chapter or appendix that describes in detail the larval salvage and release techniques to be used; (7) a Quino population monitoring program designed to detect changes in distribution, in which select occurrences on base are surveyed at least once every 4 years. The Quino Checkerspot Butterfly Habitat Enhancement Plan must be completed and receive Service concurrence prior to construction of facilities within Parcel C.</p> <p>1.e. The Navy shall complete Quino checkerspot butterfly surveys initiated in 2006 to include all parcels of La Posta MWTF proposed for exclusive use for the Navy (approximately 1,012 hectares [2,500 acres]).</p> <p>1.f. As proposed in Avoidance and Minimization Measure 4, the Navy shall control the introduction of and spread of non-native plants throughout La Posta MWTF. To prevent introduction of new invasive weed species, the Navy shall require that trainees' shoes and vehicles be free of soil and seed prior to travel throughout the installation. To control the spread of existing non-native species on base, the Navy shall implement a weed control program. The weed control program may be included as part of the Quino Checkerspot Butterfly Enhancement Plan.</p> <p>2. To implement reasonable and prudent measure two, the Navy, including all of their agents and contractors, shall adhere to the following terms and conditions:</p> <p>2.a. Construction personnel shall use existing roads or existing parking lots for staging areas whenever possible.</p> <p>2.b. Botanical surveys shall be conducted as close to the following period of <i>Antirrhinum</i> and within one year prior to construction, prior to grading activities to identify the locations of all primary and secondary host plants that lie within the clearly defined construction footprint, and;</p> <p>2.c. Construction personnel shall avoid host plants where possible. This may be accomplished by slight modifications in construction boundaries, where possible, or by marking a buffer area around host plants. The service acknowledges that due to the host plant distribution the MTC footprint, in many instances, avoiding host plants will not be possible.</p>

Agreement Summary	Conservation Measures	Terms and Conditions
	<p>included Quino checkerspot butterfly habitat within Parcel C and the existing withdrawal parcel. The area proposed for foot traffic associated with dispersed training includes approximately 2,152.0 (870.9 hectares) of non-excluded Quino checkerspot butterfly habitat.</p>	<p>3. In order to implement Reasonable and Prudent Measure Number 3, the Navy shall:</p> <p>3.a. Identify one or more sites that support a total of at least XX ha (61.78 ac) of occupied Quino habitat, and manage this habitat under the guidance of the Quino Checkerspot Butterfly Habitat Enhancement Plan to offset the permanent modification of XX ha (61.68 ac) of occupied habitat. Quino management areas may be within the boundaries of the La Posta MWTF (preferably in areas that currently receive no use to reduce conflict), or may be off of the installation (in parcels that are acquired or encumbered for conservation), but must be within dispersal distance/flight distance of parcel C and/or the Existing Withdrawal. Occupation of proposed management areas may be confirmed based on previous surveys or surveys conducted in support of identification of such sites.</p> <p>3.b. Enhance at least one acre of habitat adjacent to the sniper platform constructed within the Existing Withdrawal in 2006 and manage this site to support Quino under the guidance of the Quino Checkerspot Butterfly Habitat Enhancement Plan.</p> <p>4. In order to implement Reasonable and Prudent Measure Number 4, the Navy shall:</p> <p>4.a. Include enhancement measures to address degradation associated with foot traffic in the Habitat Enhancement Plan.</p> <p>5. In order to implement Reasonable and Prudent Measure Number 5, the Navy, shall:</p> <p>5.a. Include material regarding Quino checkerspot butterfly appearance and biology in briefings or range manuals distributed for the La Posta MWTF.</p>
<ul style="list-style-type: none"> <li>Amendment to Biological Opinion (FWS-SDG-4451), 23 August 2011.</li> </ul>		<p>1a. A biological monitor(s) will be on site during each vegetation clearing, and at least once per week during all phases of construction to regularly monitor construction activities and ensure construction is in compliance with the conservation measures committed to by the Navy. The biological monitor will provide a report to the Navy and CFWO at least monthly, identifying construction activities and the results of compliance monitoring related to implementation of the project's conservation measures. The biology monitor(s) will be approved by the CFWO and have knowledge of the biology and ecology of the Quino;</p> <p>2a. Habitat that is temporarily disturbed/modified as a result of equipment/materials staging or other construction impacts will be re-vegetated using plant species and techniques identified in the <i>Quino Checkerspot Butterfly Enhancement Plan for Camp Michael Monsoor</i> (HDR<sup>2</sup>M 2011);</p> <p>3a. Identify one or more sites that support Quino habitat and manage this habitat under the guidance of the <i>Quino Checkerspot Butterfly Habitat Enhancement Plan for Camp Michael Monsoor</i>. Habitat enhancement within the identified Quino management sites must include enhancement to Quino habitat at a 1:1 ratio to the acreage of habitat permanently or temporarily modified as a result of facilities construction and improvements at La Posta MWTF (estimated to include 41.3 acres).</p>

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**Table I-5: Active Land Use Agreements Regarding at Remote Training Site Warner Springs\*\***

Agreement Summary	Conservation Measures	Terms and Conditions
<b>Biological Opinions Issued by U.S. Fish and Wildlife Service</b>		
<ul style="list-style-type: none"> <li>• USFWS Letter FWS-SDG-09B0277 -09F0806</li> <li>• Biological Opinion on the Formal Section 7 Consultation for the Navy's Remote Training Site Warner Springs, San Diego County, California, 30 October 2009.</li> </ul>	<ol style="list-style-type: none"> <li>1. After the initial 10 years of the 20-year biological opinion, the Service, Navy, USFS, BLM, and VID will meet to 1) discuss any changes to the project; 2) review the general status of the SRK and Arroyo toad, including any relevant changes to the baseline status of these species in the action area (i.e., the "environmental baseline"); and 3) review information gained during the first 10 years in determining the effects of the training on SKR and arroyo toad. Any significant changes may require reinitiation and subsequent re-analysis of the effects of the training on SRK and arroyo toad for the remaining 10 years.</li> <li>2. Digging (except holes done by hand for restoration), disking (except when approved by the Service to support revegetation and restoration efforts), grading, mechanical excavation or deposition of fill will avoid the Arroyo Toad Management Area (ATMA) and SKR occupied habitat.</li> <li>3. To minimize disturbance to arroyo toad, no exercises or activities will be conducted that will alter the natural processes or flow regime of the San Luis Rey River, including siltation, degradation of water quality, or the natural dynamics of downstream sand transport.</li> <li>4. Training navigation points will be located at least 30 meters (m) [98 feet (ft)] from the bankfull edge of intermittent streams and 100 m (328 ft) from perennial streams.</li> <li>5. Personnel will be instructed to urinate at least 30 m (98 ft) from the bankfull edge of intermittent streams and 100 m (328 ft) from perennial streams. Solid human waste will be buried at least 15 centimeters (cm) [6 inches (in)] deep and 91 m (300 ft) from any wash, stream, creek, or riparian area, and all toilet paper will be removed from the area. Portable toilets will be available in the field at assembly/encampment points for the unit training. Students will have access to portable toilets at points in the field upon arrival. These portable toilets will be located at the two main drop-off points.</li> <li>6. No vehicle traffic will be permitted in riparian areas and across or along sandy alluvial habitats of the San Luis Rey River except for the existing dirt road crossings.</li> <li>7. To offset adverse impacts on the arroyo toad, two dirt road river crossings on the San Luis Rey River will be permanently closed and may be restored as determined by the Naval Base Coronado (NBC) botanist (Figure 3). Unused roads may be blocked with natural debris, such as large dead trees or boulders, and additional measures implemented to promote reestablishment of native vegetation in degraded areas. In coordination with the land owner (VID, BLM, or USFS) and Service, site-specific assessments will be made prior to restoration efforts that are to be undertaken.</li> <li>8. SERE instructors will be trained and knowledgeable about the fauna of the action area and able to identify/recognize SKR and arroyo toad.</li> <li>9. Educational materials (e.g., a brochure) will be developed with information on, and a recognition guide to, arroyo toad and SKR. The brochure will provide information on how to differentiate between similar non-listed species and a synopsis of the training area rules and restrictions to avoid and minimize adverse impacts to these species (e.g., ATMA and speed limits). The brochure will be provided as part of a briefing given by the SERE instructors to all SERE students and other</li> </ol>	<ol style="list-style-type: none"> <li>1. The Navy shall conduct surveys to monitor and assess the number of SKR and arroyo toad taken;             <ol style="list-style-type: none"> <li>1.1. Road kill surveys shall occur when SKR and arroyo toad are most active (April through July for both species) and shall follow immediately (within 2 days) after training activities. Road kill surveys along Fink Linton and the main evasion road (adjacent to SR-79) shall occur during training exercises to differentiate between Navy and Non-Navy fatalities;</li> <li>1.2. Survey results shall be provided to the Service annually, who may recommend other measures to reduce road kill.</li> </ol> </li> </ol>

Agreement Summary	Conservation Measures	Terms and Conditions
	<p>users of the training area before they are allowed access to the training area. The briefing will include a discussion on the natural history of the training area and those federally listed species present in the training area as well as the training area rules and restrictions required to be followed to avoid any adverse impacts on these species.</p> <p>10. All vehicle traffic will be restricted to currently established dirt or paved roads.</p> <p>11. Areas where students and instructors congregate during the course of instruction will be selected based on the absence of federally listed species and their habitats.</p> <p>12. Whenever the establishment of trails begins to be evident, passive restoration will occur by rotating training activities (e.g., field courses) away from the impacted areas. The intent is to have foot traffic remain dispersed and light throughout RTSWS.</p> <p>13. Active habitat restoration of established trails or other impacted areas will be included as a management action in the NBC Integrated Natural Resource Management Plan (INRMP). Restoration may be accomplished actively in some areas through seeding and planting.</p> <p>14. All trash that may attract predators of SKR and arroyo toad (e.g., corvids, opossums, raccoons) will be removed from the training area and disposed of at least daily in areas or in bins that wildlife cannot access.</p> <p>15. No pets, specifically cats and dogs, will be allowed as they may result in an increased level of predation or injury to SKR and arroyo toad.</p> <p>16. Annual surveys to locate, and subsequent annual treatments (e.g., herbicide) of, invasive non-native plants will be included as a management action in the NBC INRMP. Nonnative invasive plant species searches and spot treatment control efforts will be prioritized in riparian zones and areas of higher levels of training activity. Surveys and treatment will target species listed by the California Invasive Plant Council as ‘severe’, ‘moderate’, or ‘limited’ and any non-native plants that have the potential to alter ecosystem processes that are not already naturalized throughout the area.</p> <p>17. Staff and students will be instructed to clean clothing and footwear by removing any soil and plant propagules prior to entering the field. All seed removed will be properly disposed.</p> <p>18. Methods for controlling tamarisk (<i>Tamarix ramosissima</i>) and pampas grass (<i>Cortaderia jubata</i>) will be modeled after the currently successful methods in southern California. The proposed treatment method(s) will be approved by the landowner prior to implementation. The Navy will also consult with the Service if the work may affect federally listed species.</p> <p>19. Consistent with BLM policy (U.S. Department of Interior 2007), and to avoid potential impacts to SKR and arroyo toad from herbicide drift, broadcast spray of any herbicide will be prohibited. Spot treatments will be conducted during periods when SKR (daytime) and arroyo toad (non-breeding season) are least active. When in or near riparian areas, wetlands, or aquatic habitats, treatment will be conducted with herbicides approved for use in or near aquatic habitats following label restrictions.</p> <p>20. An ATMA, designed to avoid and minimize impacts to the onsite population of the arroyo toad, will be established on the east side of SR-79 (Figure 2). The boundary of the ATMA will extend 500 m (1,640 ft) from the center of the waterway on each side and along its entire length within RTSWS.</p>	

Agreement Summary	Conservation Measures	Terms and Conditions
	<p>a. Arroyo toad surveys will be conducted at least every 3 years to determine status and location. If arroyo toads are discovered in areas outside of the current ATMA, these locations will be added to the ATMA and managed accordingly. Furthermore, if arroyo toads are not discovered for many years (at least 9 years) in previously occupied locations, these areas may be eliminated from the existing ATMA. Updated maps depicting ATMA boundaries and arroyo toad locations will be provided to the Service upon survey completion and posted in appropriate locations at RTSWS.</p> <p>b. Informational signage will be installed at the access points to the ATMA as well as at strategic areas and river crossings, notifying personnel that the area is sensitive arroyo toad habitat and not to be impacted by off-road or off-trail vehicle traffic.</p> <p>c. A nighttime (sunset to sunrise) speed limit of 24 kilometers per hour (kph) [15 miles per hour (mph)] will be followed by all vehicles within the ATMA. Drivers will take all reasonable precautions to avoid vehicle strikes of arroyo toads.</p> <p>d. Three terrestrial toad species similar in appearance to arroyo toad are found at RTSWS. To avoid inadvertent death or injury to arroyo toad as a potential food source, killing or capturing of any toad or frog species for the purposes of survival training will be prohibited within the mapped ATMA.</p> <p>e. To avoid inadvertent death or injury of arroyo toad young as a potential food source, no tadpoles of any species will be captured for survival training within the ATMA during the arroyo toad breeding season (April 1-July 31).</p> <p>f. Control and removal of non-native bullfrogs (<i>Rana catesbeiana</i>) from riparian and wetland areas will be requested for funding as part of the INRMP.</p> <p>21. Informational signage will be installed on Fink Road on VID land west of SR-79, notifying personnel that the area is sensitive SKR habitat and prohibiting off-road or off-trail vehicle traffic.</p> <p>22. A nighttime (sunset to sunrise) speed limit of 24 kph (15 mph) will be posted and enforced for all vehicles within SKR habitat. Drivers will take all reasonable precautions to avoid vehicle strikes to any species of kangaroo rat, which are all similar in appearance.</p> <p>23. Areas where students and instructors may congregate during the course of instruction will be sited away from mapped SKR habitat. Foot traffic will remain dispersed and light with rotation of activity areas (such as navigation points) whenever the establishment of trails begins to be evident.</p> <p>24. SKR surveys will be conducted at least every 3 years to determine status and location. Updated occupancy maps will be provided to the Service upon survey completion and posted in appropriate locations at RTSWS.</p> <p>25. To avoid death or injury to the SKR as a potential food source, the killing or capturing of any kangaroo rat species for the purposes of survival training is prohibited within occupied areas.</p>	

\*\*For Unofficial Use Only. Consult with NBC Natural Resources manager for current information.”

## Appendix I

### Minimization, Mitigation, Monitoring, and Reporting Tracking Sheet

#### Remote Training Site Warner Springs (RTSWS)

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
Game will be captured or killed for the purposes of survival training in accordance with California Fish and Game Code Section 312 and as authorized by CDFW permit letter originally issued January 7, 1999 and renewed annually thereafter. Per this permit only the following animals may be captured or killed: small game mammals, non-game and fur-bearing mammals; and all birds, fish, amphibian, and reptiles except those designated by the California or Federal government as fully protected, threatened, or endangered. All other animals taken will be released unharmed. Additional measures to protect sensitive species beyond the CDFW permit requirements are listed in BR-40. <b>[BR-1]</b>	RTSWS FEA Page 2-23	Capture or kill game for survival training in accordance with California Fish and Game Code §312 and CDFW permit letter	SERE West OIC (holds and renews permit), NBC Env. (technical assistance)	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:
Indiscriminate killing of any animals that are not captured or killed for the purposes of survival training will be prohibited. <b>[BR-2]</b>	RTSWS FEA Page 2-23	Animals may not be captured or killed for purposes other than survival training	SERE West OIC	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:
Live vegetation will not be cut for concealment or camouflage. Felling trees of any size will be prohibited. Dead and down materials may be used for cover and concealment. <b>[BR-3]</b>	RTSWS FEA Page 2-23	Do not use live vegetation or fell trees for purposes of concealment or camouflage; dead and downed materials may be used	SERE West OIC	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
Areas that may be used for minor ground disturbing activities such as digging fire pits or hide holes will be selected on the absence of sensitive natural resources, specifically threatened and endangered and special status species, which may be affected by ground disturbance. Digging, disking, grading, mechanical excavation or deposition of fill in wetlands or riparian areas will be prohibited. <b>[BR-4]</b>	RTSWS FEA Page 2-23	Areas for minor ground disturbing activities will be selected on the absence of sensitive natural resources; Digging, disking, grading, mechanical excavation or deposition of fill in wetlands or riparian areas is not allowed	SERE West OIC, NBC Env.	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:
No exercises or activities will be conducted that would alter the natural processes or flow regime of the San Luis Rey River including siltation, degradation of water quality, or the natural dynamics of downstream sand transport. Navigation points for land navigation training will be located at least 98 ft (30 m) from the bankfull edge of intermittent streams, and 328 ft (100 m) from perennial streams. <b>[BR-5]</b>	RTSWS FEA Page 2-23	Do not conduct exercises/activities that would alter the natural processes or flow regime of the San Luis Rey River; locate navigation points at least 98 ft (30 m) from bankfull edge of intermittent streams and 328 ft (100 m) from perennial streams	SERE West OIC, NBC Env.	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:



Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
<p>Personnel will be instructed to urinate at least 98 ft (30 m) from the bankfull edge of intermittent streams, and 328 ft (100 m) from perennial streams. Solid human waste must be buried at least six inches deep and 300 feet from any wash, stream, creek, or riparian area, and all toilet paper will be removed from the area. Portable toilets (“Port-a-Potties”) will be available in the field at assembly/encampment points for unit training. Students will have access to portable toilets at points in the field upon arrival. These portable toilets will be located at the two main drop-off points. <b>[BR-6]</b></p>	<p>RTSWS FEA Page 2-23</p>	<p>Personnel will urinate at least 98 ft (30 m) from the bankfull edge of intermittent streams and 328 ft (100 m) from perennial streams; solid human waste will be buried at least 6 inches deep and 300 ft from wash, stream, creek, or riparian areas and toilet paper will be removed from the area. Portable toilets located at the two main drop-off points will be available for students in the field upon arrival</p>	<p>SERE West OIC, NBC Env.</p>	<p>RTSWS Range User Manual  Annual MMR filed with VID in July</p>	<p>Ongoing</p>	<p>SERE West OIC:  Date:  ----- NBC Env.:  Date:</p>
<p>No vehicle traffic will be permitted in riparian areas or across or upstream/downstream along the sandy alluvial habitats of the San Luis Rey River except for the existing dirt road crossings. <b>[BR-7]</b></p>	<p>RTSWS FEA Page 2-24</p>	<p>Vehicle traffic will not be permitted in riparian areas or across/ upstream/downstream along sandy alluvial habitats of San Luis Rey River (except for existing dirt road crossings)</p>	<p>SERE West OIC</p>	<p>RTSWS Range User Manual  Annual MMR filed with VID in July</p>	<p>Ongoing</p>	<p>SERE West OIC:  Date:</p>
<p>SERE instructors will be trained and knowledgeable about the flora of the proposed action area in order to recognize and avoid any adverse impacts on those special status plant species confirmed to be present [Orcutt's brodiaea (<i>Brodiaea orcuttii</i>), long-spined spineflower (<i>Chorizanthe polygonoides</i> var. <i>longispina</i>), Mojave tarplant (<i>Deinandra mohavensis</i>), Englemann oak (<i>Quercus engelmannii</i>)], and the one federally listed plant not found, but for which suitable supporting habitat exists in the project area [slender-horned spineflower (<i>Dodecahema leptoceras</i>)]. <b>[BR-8]</b></p>	<p>RTSWS FEA Page 2-24</p>	<p>SERE instructors will be trained and knowledgeable about the flora in the proposed action area</p>	<p>SERE West OIC, NBC Env.</p>	<p>RTSWS Range User Manual  Annual MMR filed with VID in July</p>	<p>Ongoing</p>	<p>SERE West OIC:  Date:  ----- NBC Env.:  Date:</p>

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
<p>SERE instructors will be trained and knowledgeable about the fauna of the proposed action area in order to be able to recognize and avoid any adverse impacts on those animal species identified as having special status, in particular those special status species listed as fully protected, threatened or endangered by the state or Federal government. <b>[BR-9]</b></p>	<p>RTSWS FEA Page 2-24</p>	<p>SERE instructors will be trained and knowledgeable about the fauna in the proposed action area</p>	<p>SERE West OIC, NBC Env.</p>	<p>RTSWS Range User Manual  Annual MMR filed with VID in July</p>	<p>Ongoing</p>	<p>SERE West OIC:  Date:  ----- NBC Env.:  Date:</p>
<p>All vehicle traffic will be restricted to currently established dirt or paved roads. No off-road vehicle use is permitted in the proposed action area. <b>[BR-10]</b></p>	<p>RTSWS FEA Page 2-24</p>	<p>Vehicle traffic will be restricted to currently established dirt/paved roads; no off-road vehicle use is permitted in the proposed action area</p>	<p>SERE West OIC</p>	<p>RTSWS Range User Manual  Annual MMR filed with VID in July</p>	<p>Ongoing</p>	<p>SERE West OIC:  Date:</p>
<p>Areas where students and instructors may congregate at times during the course of instruction will be selected based on the absence of special status plants or fully protected state or federally threatened or endangered species or their habitats. Foot traffic will generally remain dispersed and light throughout the proposed action area, with rotation of areas of activity whenever the establishment of trails begins to be evident. <b>[BR-11]</b></p>	<p>RTSWS FEA Page 2-24</p>	<p>Select areas for congregation based on absence of natural resources; ensure foot traffic remains dispersed and light throughout the proposed action area, rotating activity areas when established trails becomes evident</p>	<p>SERE West OIC, NBC Env.</p>	<p>RTSWS Range User Manual  Annual MMR filed with VID in July</p>	<p>Ongoing</p>	<p>SERE West OIC:  Date:  ----- NBC Env.:  Date:</p>
<p>All trash that may attract predators (e.g. corvids, opossums, raccoons) will be removed from the training area and disposed of at least daily in areas or in bins that wildlife cannot access. <b>[BR-12]</b></p>	<p>RTSWS FEA Page 2-24</p>	<p>Remove all trash from training area and dispose of regularly in areas or bins where wildlife cannot access</p>	<p>SERE West OIC</p>	<p>RTSWS Range User Manual  Annual MMR filed with VID in July</p>	<p>Ongoing</p>	<p>SERE West OIC:  Date:</p>

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
All expended training material generated during the course of training, such as blank ammunition cartridges, shall be policed, picked up and removed after each training event to the greatest extent possible. [BR-13]	RTSWS FEA Page 2-24	Police, pick up and remove expended training material after each training event to the greatest extent possible	SERE West OIC	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:
A quarterly walk through inspection of the training area will be conducted by SERE staff. Any material left inadvertently in the field will be removed. [BR-14]	RTSWS FEA Page 2-24	Conduct a quarterly inspection of the training area and remove any material still in the field	SERE West OIC	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:
No pets, specifically cats and dogs, will be allowed at the RTSWS SERE compound or in the field as they may result in an increased level of predation or injury to arroyo toad populations. [BR-15]	RTSWS FEA Page 2-24	No pets will be allowed at the SERE compound or in the field	SERE West OIC	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:
Unused roads and trails may be blocked with natural debris, such as large dead trees or boulders, and additional measures implemented to promote reestablishment of native vegetation in these areas. In coordination with the land owner (VID, BLM, or USFS) site specific assessments will be made prior to restoration efforts that are to be undertaken. Restoration of trails will occur passively by rotating the field course away from sites where trails begin to develop. [BR-16]	RTSWS FEA Page 2-24	Unused roads and trails may be blocked with natural debris and additional measures implemented to promote reestablishment of native vegetation; site specific assessments will be conducted prior to restoration efforts in coordination with landowners, and passive restoration will occur where trails begin to develop	SERE West OIC, NBC Env.	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
Active habitat restoration of established trails or other impacted areas will be included as a management recommendation in the Naval Base Coronado Integrated Natural Resource Management Plan (NBC INRMP). [BR-17]	RTSWS FEA Page 2-24	Active habitat restoration will be included in the NBC INRMP	NBC Env.	INRMP  Educational Materials  Annual MMR filed with VID in July	Ongoing	NBC Env.:  Date:
Educational materials such as a brochure will be funded through Navy funding processes and developed with information on, and a recognition guide to, the threatened or endangered animal species and the special status plant species present in the training area. The brochure will also provide a synopsis of the training area rules and restrictions required to be followed to avoid any adverse impacts to these species. [BR-18]	RTSWS FEA Page 2-24	Educational materials (i.e., a brochure) will be funded through Navy funding processes; such materials will provide information on, and a recognition guide to, the threatened or endangered animal species and the special status plant species present in the training area as well as a synopsis of training area rules and restrictions	SERE West OIC, NBC Env.	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:
The brochure will be provided as part of a briefing given by the SERE instructors to all SERE students and other users of the training area before they are allowed access to the training area. The briefing will include a discussion on the natural history of the training area and those fully protected, threatened, or endangered wildlife and the special status plant species present in the training area as well as the training area rules and restrictions required to be followed to avoid any adverse impacts on these species. [BR-19]	RTSWS FEA Page 2-24	A briefing to SERE students will be conducted by SERE instructors that discusses natural history of the training area and those fully protected, threatened, or endangered wildlife and special status plant species present in the training area, as well as the training area rules and restrictions; the brochure will be provided to SERE students during the briefing	SERE West OIC, NBC Env.	INRMP  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
Long-term natural resource management and monitoring procedures to be followed by the Navy will be detailed in the revised NBC INRMP and remain consistent with the standards and guidelines from BLM and USFS land management plans and VID land management policy. [BR-20]	RTSWS FEA Page 2-25	The Navy's long-term natural resource management and monitoring procedures will be detailed in the revised NBC INRMP consistent BLM and USFS land management plans and VID land management policy	NBC Env.	INRMP  Annual MMR filed with VID in July	Ongoing	NBC Env.:  Date:
RTSWS Training Area Regulations will be developed that provide guidelines and restrictions on the training use of the proposed action area. Included in these regulations will be guidelines and restrictions on the use of: o Motorized vehicles o Aircraft o Pyrotechnics/Weapons/ Open Fires [BR-21]	RTSWS FEA Page 2-25	RTSWS Training Area Regulations will be developed that provide guidelines and restrictions on training use of the proposed action area	NBC Ranges, CSF	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	NBC Ranges:  Date:  ----- CSF:  Date:
Surveys to locate and treat invasive non-native plants/weeds will be included as a management recommendation in the NBC INRMP. Weed searches and spot treatment control efforts will be prioritized in areas of higher levels of training activity. [BR-22]	RTSWS FEA Page 2-25	The NBC INRMP will include a management recommendation to conduct surveys to locate and treat invasive non-native plants/weeds; weed searches and spot treatment control efforts will be prioritized in areas of higher levels of training activity	NBC Env.	INRMP  Annual MMR filed with VID in July	Ongoing	NBC Env.:  Date:
Tamarisk ( <i>Tamarix ramosissima</i> ) and pampas grass ( <i>Cortaderia jubata</i> ) are invasive plant species that are found in riparian or wet areas within the proposed action area at RTSWS. Methods for controlling tamarisk will be modeled after the successes already achieved in southern California. The San Luis Rey Weed Management Area (WMA) is a primary source of information, as well as University of California Cooperative Extension (for example, see Chavez 1996 and DeGouvenain and West 1996). The USFS partners with the WMA for weed management on its lands. [BR-23]	RTSWS FEA Page 2-25	Methods for controlling tamarisk will be modeled after the successes already achieved in southern California; refer to the WMA and University of California Cooperative Extension for information	NBC Env.	INRMP  Annual MMR filed with VID in July	Ongoing	NBC Env.:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
<p>Consistent with BLM policy (U.S. Department of Interior 2007), and to avoid potential impacts to listed species due to herbicide drift, no broadcast spray of any herbicide will be conducted in the proposed action area. Spot treatments will be conducted during periods when animals are hibernating in burrows. Within riparian areas, wetlands, and aquatic habitats, herbicide treatments will be conducted only with herbicides that are approved for use in those areas. All instructions and standard operating procedures will be followed to avoid spill and direct spray scenarios into aquatic habitats that support federally listed species. The Navy will use herbicides in a manner that is consistent with labeling instructions and landowner protocols to ensure that unlawful taking of an ESA-listed species does not occur. A Programmatic EIS, Record of Decision (ROD), (Federal Register [FR]/ Vol. 72, No. 125 / Friday, June 29, 2007) and BA have been completed for the BLM on the use of herbicides on its public lands, and potential effects on federally listed species. The RTSWS Proposed Action is consistent with this EIS/BA in the use of glyphosphate or triclopyr in riparian areas (USDI BLM EMS Transmission Information Bulletin No. 2007-028 to State Directors from the Assistant Director, Renewable Resources and Planning on “Updating List of Approved Herbicide Formulations and Adjuvants”). The Navy uses only glyphosphate or triclopyr, with cut-and-treat programs, both of which are on this approved list and registered in the State of California. The Navy’s actions will remain consistent with USFS guidelines when treating weeds on USFS lands. <b>[BR-24]</b></p>	<p>RTSWS FEA Page 2-25</p>	<p>No broadcast spray of any herbicide will be conducted in the proposed action area; spot treatments will be conducted during periods when animals are hibernating in burrows. Within riparian areas, wetlands, and aquatic habitats, herbicide treatments will be conducted only with herbicides that are approved for use in those areas; all instructions and standard operating procedures will be followed to avoid spill and direct spray scenarios into aquatic habitats that support federally listed species. The Navy will use herbicides in a manner consistent with labeling instructions and landowner protocols. The Navy’s actions will remain consistent with USFS guidelines when treating weeds on USFS lands.</p>	<p>NBC Env.</p>	<p>INRMP  Annual MMR filed with VID in July</p>	<p>Ongoing</p>	<p>NBC Env.:  Date:</p>

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
<p>Federal agencies with land that contains vegetation capable of sustaining fire will develop a Fire Management Plan (FMP), according to Federal wildland fire policy (USDI/U.S. Department of Agriculture 1995, revised in 2001 and found at <a href="http://www.nwccg.gov/branches/ppm/fpc/archives/fire_policy/index.htm">http://www.nwccg.gov/branches/ppm/fpc/archives/fire_policy/index.htm</a>). This policy was signed by the DoD through DoD Instruction 6055.6 (Fire and Emergency Services Program October 10, 2000). A FMP for RTSWS has been funded that will identify appropriate precautions for the training operations at RTSWS and the use of different types of pyrotechnics under varying fire danger levels based on fire behavior, the most appropriate fuel models, and suppression response times. This plan will be separate from but consistent with the existing CNF FMP. Until this FMP is in place and implemented, the general measures for fire prevention and control and the use at RTSWS of any pyrotechnic device, blank-firing weapons or warming/cooking fire will be in accordance with the procedures and protocol provided below: <b>[BR-25]</b></p>	RTSWS FEA Page 2-25	An FMP will be developed that will identify appropriate precautions for training operations and the use of different types of pyrotechnics under varying fire danger levels based on fire behavior, the most appropriate fuel models, and suppression response times; general measures for fire prevention and control and the use of any pyrotechnic device, blank-firing weapons or warming/cooking fire will be in accordance with the procedures and protocol provided herein until the FMP is in place	NBC Env.	INRMP  FMP  Annual MMR filed with VID in July	Ongoing	NBC Env.:  Date:
<p>The Navy will initiate an annual consultation meeting between BLM, USFS, VID, Navy staff, CALFIRE and the USFS, CNF Palomar Ranger District to review/develop/update fire prevention and control plans and procedures. <b>[BR-26]</b></p>	RTSWS FEA Page 2-26		SERE West OIC, NBC Ranges, NBC Env.	RTSWS Training Area Regulations  FMP  Annual MMR filed with VID in July  Annual Meeting	Ongoing	SERE West OIC:  Date: ----- NBC Ranges:  Date: ----- NBC Env.:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
The CALFIRE and USFS (CNF, Palomar Ranger District) are both available resources to coordinate fire prevention measures as needed. The Emergency Command Center (ECC) will be contacted by the Duty Petty Officer (DPO) on the SERE Quarterdeck no earlier than 12 hours prior to a training event to ascertain the National Fire Danger Rating System (NFDRS) fire rating for the day for the project site, including those portions of VID, BLM, and USFS property. Once information is obtained, it will be relayed to the OIC and Assistant OIC (AOIC) who must provide approval for the use of pyrotechnic devices, blank-firing weapons or cooking/warming fires at the beginning of each training day. Instructors will be contacted in the field if conditions change during the course of the day, which requires this approval to be rescinded. [BR-27]	RTSWS FEA Page 2-26	DPO will contact ECC no earlier than 12 hours prior to a training event to obtain the NFDRS fire rating for the day for the project site; the fire rating will be relayed to the OIC and AOIC to determine if the use of pyrotechnic devices, blank-firing weapons or cooking/warming fires is approved. Instructors will be contacted in the field if conditions change during the course of the day.	SERE West OIC	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:
All instructors, unit personnel and students will be briefed on fire prevention measures, reporting procedures, fire danger levels and fire safety. [BR-28]	RTSWS FEA Page 2-26	Brief all instructors, unit personnel and students on fire prevention measures, reporting procedures, fire danger levels and fire safety	SERE West OIC	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:
All fire building and the use of blank-firing weapons and pyrotechnics are under the supervision of a field instructor. The instructor will notify the SERE Quarterdeck when a fire is to be started or pyrotechnics and blank-firing weapons are to be used and will report when all fires are extinguished or training activities have ceased. [BR-29]	RTSWS FEA Page 2-26	Instructors will notify SERE Quarterdeck when fires are to be started and pyrotechnics and/or blank-firing weapons are to be used, and when all fires are out or training activities have ceased	SERE West OIC	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:
Wood fires for demonstration cooking and warming will be built only in designated fire rings/sites. [BR-30]	RTSWS FEA Page 2-26	Wood fires will be built only in designated fire rings/sites	SERE West OIC	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:



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All vehicular units in the field will have fire suppression equipment available while training in the event an unplanned ignition occurs. Suppression equipment will consist of one backpack type water pump (approximate 5-gallon capacity), shovels, fire extinguisher (chemical CO <sub>2</sub> ), bucket, and radio. [BR-31]	RTSWS FEA Page 2-26	All vehicular units in the field will have fire suppression equipment available while training	SERE West OIC	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:
Flares/pencil flares will only be used in pre-designated cleared sandy/dirt areas. The pencil flare has a maximum 15-second burn time and burns out before it hits the ground. Mk124 Day and Night flares have a 20 second burn time. The Day and Night flares remain in the dirt until they cool off and are then disposed of or saved for reuse at a later time. [BR-32]	RTSWS FEA Page 2-26	Flares/pencil flares will only be used in pre-designated cleared sandy/dirt areas	SERE West OIC	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:
Smokes will only be used in pre-designated training sites and LZs. The smoke has a concentrated smoke burn of approximately eight seconds. The smoke will be placed in a container of water after use. [BR-33]	RTSWS FEA Page 2-26	Smokes will only be used in pre-designated training sites and LZs	SERE West OIC	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:
If an unplanned ignition occurs, the unit in the field will suspend all training activity and take immediate action to extinguish the fire. Unless determined to be unsafe, the unit will remain on station and attempt to control/ extinguish the fire until determined to be extinguished by the watch officer on duty or responded to by the appropriate firefighting agency. An unplanned ignition will be immediately reported by radio to the SERE Quarterdeck. The following information must be provided to the SERE Quarterdeck: <ul style="list-style-type: none"> <li>• Unit identification.</li> <li>• Type and size of fire and whether or not assistance is required.</li> <li>• Location of fire (digit grid coordinate, lat/ long, training site name or landmark) and cause, if known.</li> <li>• Firefighting equipment on scene. [BR-34]</li> </ul>	RTSWS FEA Page 2-26	If an unplanned ignition occurs, the unit in the field will suspend all training activity and take immediate action to extinguish the fire; unless determined to be unsafe, the unit will remain on station and attempt to control/extinguish the fire until determined to be extinguished by the watch officer on duty or responded to by the appropriate firefighting agency. Unplanned ignitions will be immediately reported by radio to the SERE Quarterdeck.	SERE West OIC	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
The SERE Quarterdeck will immediately call 911 Dispatch to report an escaped fire if assistance is required. Location of the fire will be reported to 911 Dispatch utilizing a Township and Range map or GPS coordinates. [BR-35]	RTSWS FEA Page 2-27	SERE Quarterdeck will immediately call 911 Dispatch to report an escaped fire if assistance is required	SERE West OIC	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:
<p>The allowable activities as determined by the NFDRS are discussed below. This guidance applies to allowable Navy training activities at RTSWS according to the NFDRS as per the Emergency Command Center. The Navy will refer to this guidance for its use and activities at RTSWS.</p> <p>Activities such as field training, helicopter operations, vehicle use and the blank-firing weapons are generally unrestricted, as their potential to cause fire is low. Wood fires for cooking and warming are allowed only in designated fire rings/sites. The Navy is responsible for determining whether wood fires in designated sites is appropriate during very high to extreme fire conditions, especially when high winds are present. In addition, the use of incendiary devices including but not limited to pencil flares, other flares, smokes and Sim grenades require the Navy to exercise considerable caution that errs on the side of safety especially during wind events. The Navy, after determining the daily NFDRS conditions, will decide on a case by case basis whether or not to undertake operations that use incendiary devices. The Navy will contact CNF Palomar Ranger District Offices for input and guidance as appropriate. [BR-36]</p>	RTSWS FEA Page 2-27	The Navy, after determining the daily NFDRS conditions, will decide on a case by case basis whether or not to undertake operations that use incendiary devices and contact CNF Palomar Ranger District Offices for input and guidance as appropriate	SERE West OIC	RTSWS Range User Manual  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:
Maps and overlays of the training area will be developed, identifying locations and habitat boundaries of special status plant species [Orcutt's brodiaea ( <i>Brodiaea orcuttii</i> ), long-spined spineflower ( <i>Chorizanthe polygonoides</i> var. <i>longispina</i> ), Mojave tarplant ( <i>Deinandra mohavensis</i> ), Englemann oak ( <i>Quercus engelmannii</i> )] confirmed to be present and those animal species listed as fully protected, threatened, or endangered by the California state or Federal government. These overlays along with an overlay of the intended use of the training area will facilitate avoidance to the maximum extent practicable of any potential adverse effects. [BR-37]	RTSWS FEA Page 2-27	Maps and overlays of the training area will be developed, identifying locations and habitat boundaries of present special status plant species and fully protected, threatened, or endangered animal species	NBC Env.	INRMP  Annual MMR filed with VID in July	Ongoing	NBC Env.:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
Routine interagency coordination with the USFS and BLM for current information regarding the status of Bald and Golden Eagle sightings in the area will be conducted and the USFS policy for managing the presence of eagles in the area will be adopted. [BR-38]	RTSWS FEA Page 2-27	Conduct routine coordination with USFS and BLM for current information regarding the status of Bald and Golden Eagle sightings in the project area and adopt USFS policy for managing the presence of eagles in the project area	NBC Env.	INRMP  Annual MMR filed with VID in July	Ongoing	NBC Env.:  Date:
<p>Golden Eagles (<i>Aquila chrysaetos</i>) are protected by the Migratory Bird Treaty Act (MBTA), the Bald and Golden Eagle Protection Act, and United States Fish and Wildlife Service (USFWS) regulatory protections for these species 72 FR 3112 and 74 FR 43686 promulgated since 2007.</p> <p>For the protection of nesting Golden Eagles [and Bald Eagles (<i>Haliaeetus leucocephalus</i>) should any occur], USFS will monitor the breeding status of any eagle nest sites on USFS land and make the final determination of breeding status of eagle nests. Recommended measures to avoid and minimize impacts to eagles to the maximum degree possible include:</p> <p>An annual closure area a minimum of ½ mile around nest sites on USFS land would occur between 1 December and 15 March. If eagles are not nesting at the site, then the area will be open to RTSWS use after 15 March. If the eagles are present and exhibiting nesting behavior, then the site closure will remain in effect through 1 July. [BR-39]</p>	RTSWS FEA Page 2-28	USFS will monitor the breeding status of any Bald/Golden Eagle nest sites on USFS land and make the final determination of breeding status of eagle nests. An annual closure area a minimum of ½ mile around nest sites on USFS land would occur between 1 December and 15 March; if eagles are not nesting at the site, then the area will be open to RTSWS use after 15 March, but if eagles are present and exhibiting nesting behavior, the site will remain closed through 1 July.	SERE West OIC, NBC Env.	INRMP  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
<p>While not designated as fully protected, threatened or endangered, the following special status species will not be taken as part of survival training. If captured inadvertently, these species will be released unharmed.</p> <p><u>Fish</u></p> <ul style="list-style-type: none"> <li>Arroyo chub (<i>Gila orcutti</i>)</li> </ul> <p><u>Herpetofauna (Reptiles and Amphibians)</u></p> <ul style="list-style-type: none"> <li>Coast horned lizard (<i>Phrynosoma coronatum blainvilli</i>)</li> <li>California legless lizard (<i>Anniella pulchra pulchra</i>)</li> <li>Coastal rosy boa [<i>Charina (Lichanura) trivirgata roseofusca</i>]</li> <li>Coronado skink (<i>Eumeces skiltonianus interparietalis</i>)</li> <li>San Bernardino mountain kingsnake (<i>Lampropeltis zonata parvirubra</i>)</li> <li>San Diego mountain kingsnake (<i>Lampropeltis zonata pulchra</i>)</li> <li>San Diego ringnecked snake (<i>Diadophis punctatus similis</i>)</li> <li>Western pond turtle (<i>Clemmys marmorata pallida</i>)</li> <li>Two-striped garter snake (<i>Thamnophis hammondi</i>)</li> <li>Western spadefoot toad [<i>Spea (Scaphiopus) hammondi intermontanus</i>]</li> </ul> <p><u>Birds</u></p> <ul style="list-style-type: none"> <li>Non-game birds (game birds that may be taken include quail, turkey, pigeon, dove, and pheasant)</li> </ul> <p><u>Mammals</u></p> <ul style="list-style-type: none"> <li>American badger (<i>Taxidea taxus</i>)</li> <li>Bats [BR-40]</li> </ul>	RTSWS FEA Page 2-28	Designated special status species will not be taken as part of survival training	SERE West OIC, NBC Env.	RTSWS Training Area Regulations  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
Adherence to the existing general management and conservation measures in Section 3.4.3.4 and the conservation measures and terms and conditions outlined in the Biological Opinion (BO) issued by the USFWS on 30 October 2009 will minimize adverse impacts to the arroyo toad population and arroyo toad habitat within the proposed action area. Refer to BO found in Appendix C. [BR-41]	RTSWS FEA Page 2-29	Adhere to existing general management and conservation measures and BO conservation measures and terms and conditions for arroyo toad population and habitat	SERE West OIC, NBC Env.	INRMP  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:
Adherence to the existing general management and conservation measures in Section 3.4.3.4 and the conservation measures and terms and conditions outlined in the BO issued by the USFWS on 30 October 2009 will minimize any significant adverse impacts to the Stephens' kangaroo rat population and Stephens' kangaroo rat habitat within the proposed action area. Refer to BO found in Appendix C. [BR-42]	RTSWS FEA Page 2-29	Adhere to existing general management and conservation measures and BO conservation measures and terms and conditions for Stephens' kangaroo rat population and habitat	SERE West OIC, NBC Env.	INRMP  Annual MMR filed with VID in July	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:
No specific management measures are proposed. Adherence to existing general management measures detailed in Section 3.4.3.4, including management measures designed to protect wetlands and control invasive plants/weeds, will minimize any adverse impacts to the Southwestern Willow Flycatcher and state endangered Willow Flycatcher and their habitat within the proposed action area. [BR-43]	RTSWS FEA Page 2-29	Adhere to existing general management measures for Southwestern Willow Flycatcher and state endangered Willow Flycatcher and their habitat	NBC Env.	INRMP  Annual MMR filed with VID in July	Ongoing	NBC Env.:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
<p>Because no Quino checkerspot butterflies were detected within the proposed action area, no special management measures are proposed. Adherence to the general management measures in Section 3.4.3.4 will avoid or minimize any adverse impacts to suitable habitat and potential host plants.</p> <p>Surveys for the Quino checkerspot butterfly will be included as a management recommendation in the NBC INRMP. Surveys will focus on areas with the greatest potential to support the Quino checkerspot butterfly and those in which suitable habitat overlaps with areas of the most intensive military use. <b>[BR-44]</b></p>	RTSWS FEA Page 2-29	Adhere to existing general management measures for Quino habitat and host plants; include Quino surveys as NBC INRMP management recommendation	NBC Env.	INRMP  Survey Report  Annual MMR filed with VID in July	Ongoing	NBC Env.:  Date:
<p>Because no slender-horned spinyflowers were detected within the proposed action area, no special management measures are proposed. Adherence to the general management measures in Section 3.4.3.4 will avoid or minimize any adverse impacts to suitable slender-horned spinyflower habitat.</p> <p>Remapping the distributions of special status plants (those on the California Native Plant Society [CNPS], BLM, and USFS special status species lists) will be included as a management recommendation in the NBC INRMP. These surveys will include the slender-horned spinyflower and will focus on areas with higher levels of training activity. <b>[BR-45]</b></p>	RTSWS FEA Page 2-29	Adhere to existing general management measures for suitable slender-horned spinyflower habitat; include remapping of distributions of special status plants as NBC INRMP management recommendation	NBC Env.	INRMP  Survey Report  Annual MMR filed with VID in July	Ongoing	NBC Env.:  Date:
<p>Conserve soil productivity, nutrient functioning, water quality, air quality, and wildlife habitat through effective implementation of Best Management Practices (BMPs) to prevent and control soil erosion.</p>	RTSWS FEA Page 3-63	Implement BMPs to prevent and control soil erosion	SERE West OIC, NBC Env.	NBC INRMP	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
Protect the quality of surface water for military, residential, landscapes, and natural resources uses.	RTSWS FEA Page 3-63	Protect surface water quality	SERE West OIC, NBC Env.	NBC INRMP	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:
Protect the natural diversity and long-term viability of the ecological and evolutionary processes in all natural communities and wildlife habitats consistent with DoD ecosystem management policy (DoD 1994), including no net loss in the capability of NBC lands to support its military mission.	RTSWS FEA Page 3-63	Protect natural diversity and long-term viability of ecological and evolutionary processes in all natural communities and wildlife habitats consistent with DoD ecosystem management policy	NBC Env.	NBC INRMP	Ongoing	NBC Env.:  Date:
Conserve the native plant communities on all properties to support biodiversity and ecosystem health.	RTSWS FEA Page 3-63	Conserve native plant communities on all properties	SERE West OIC, NBC Env.	NBC INRMP	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:

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Protect the natural and beneficial functions of NBC's riparian vegetation, wetlands and other waters as part of appropriate permits with the USACE. Wetlands should be managed to ensure no net loss of area, function, or value.	RTSWS FEA Page 3-63	Protect natural and beneficial functions of riparian vegetation, wetlands and other waters, and manage wetlands to ensure no net loss of area, function, or value	SERE West OIC, NBC Env.	NBC INRMP RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:
Control the spread and introduction of invasive plant species with priority on those with the greatest potential for sensitive species population or habitat degradation, and restore native habitat when feasible.	RTSWS FEA Page 3-63	Control the spread and introduction of invasive plant species, and restore native habitat when feasible	SERE West OIC, NBC Env.	NBC INRMP	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:
Provide for the conservation of all sensitive (special status) plant species and their respective habitats, as a proactive strategy to help prevent future Federal listings. Strive for compatible use flexibility to fulfill mission requirements.	RTSWS FEA Page 3-63	Provide for the conservation of all sensitive (special status) plant species and their respective habitats	SERE West OIC, NBC Env.	NBC INRMP	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:



Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
Inventory and determine the health and trend of amphibian and reptile populations, focusing on sensitive (special status) species and endemics as a first priority.	RTSWS FEA Page 3-63	Inventory and determine the health and trend of amphibian and reptile populations	NBC Env.	NBC INRMP	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:
Conserve viable habitat for migratory and resident birds that use NBC for stopover resting, feeding, and nesting. This includes the removal of exotic species which may detrimentally affect native bird species.	RTSWS FEA Page 3-64	Conserve viable habitat for migratory and resident birds that use NBC for stopover resting, feeding, and nesting	SERE West OIC, NBC Env.	NBC INRMP	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:
Provide for healthy populations of native mammals by managing for a diversity of native habitats and habitat conditions and ensuring that tradeoffs of all military and biological projects to native mammals are considered in planning.	RTSWS FEA Page 3-64	Manage for a diversity of native habitats and habitat conditions and ensuring that tradeoffs to native mammals are considered in planning	NBC Env.	NBC INRMP	Ongoing	NBC Env.:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
Conserve fish population abundance and diversity while focusing on habitat conservation as a first priority.	RTSWS FEA Page 3-64	Conserve fish population abundance and diversity	SERE West OIC, NBC Env.	NBC INRMP	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:
Provide for the conservation of sensitive (special status) species and their respective habitats at optimum levels, as a proactive strategy to help prevent future Federal listings.	RTSWS FEA Page 3-64	Provide for conservation of sensitive (special status) species and their respective habitats	NBC Env.	NBC INRMP	Ongoing	NBC Env.:  Date:
In order to be able to recognize and avoid any adverse effects on those sites listed in Appendix D of the EA, DON instructors will be trained and knowledgeable about the locations of cultural resources in the project area.	RTSWS FEA Page 3-68	DON instructors will be trained and knowledgeable about the locations of cultural resources in the project area	SERE West OIC; NBC Env., with NAVFAC SW EV52 support	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:  ----- NBC Env., with NAVFAC SW EV52 support:  Date:
All vehicle traffic will be limited to currently established paved and dirt roads. No off-road vehicle use will be permitted in the project area.	RTSWS FEA Page 3-68	No off-road vehicle use will be permitted in the project area	SERE West OIC	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
Dispersed foot traffic will be permitted throughout the training area. Rotation of areas of activity will be accomplished on a routine basis and before the establishment of trails begins to be evident.	RTSWS FEA Page 3-68	Dispersed foot traffic will be permitted throughout the training area, and activities will be rotated on a routine basis before trails begin to be evident	SERE West OIC	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:
Using Appendix D of the EA, DoN will develop maps and overlays of the training area, identifying site locations and the permitted activities at those sites. These overlays, along with an overlay of the intended use of the training area, will be used to tailor the use of the training area and to avoid, to the maximum extent practicable, any potential adverse effects.	RTSWS FEA Page 3-68	Develop maps and overlays of the training area, identifying site locations and permitted activities at those sites	SERE West OIC; NBC Env., with NAVFAC SW EV52 support	RTSWS Range User Manual  Maps	Ongoing	SERE West OIC:  Date:  ----- NBC Env., with NAVFAC SW EV52 support:  Date:
Areas where students and instructors may assemble or congregate at times, or where foot traffic may be concentrated during the course of instruction, will be selected based on the absence of cultural resource sites which may be affected by ground disturbance.	RTSWS FEA Page 3-68	Select congregation areas based on the absence of cultural resource sites	SERE West OIC; NBC Env., with NAVFAC SW EV52 support	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:  ----- NBC Env., with NAVFAC SW EV52 support:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
Areas that may be used for minor ground disturbing activities such as digging fire pits or hide holes will be selected based on the absence of cultural resource sites which may be affected by ground disturbance.	RTSWS FEA Page 3-68	Select areas for minor ground disturbing activities based on the absence of cultural resource sites	SERE West OIC; NBC Env., with NAVFAC SW EV52 support	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:  ----- NBC Env., with NAVFAC SW EV52 support:  Date:
Areas that may be used for temporary LZs for helicopters will be selected based on the absence of cultural resource sites which may be affected by ground disturbance.	RTSWS FEA Page 3-68	Select areas for LZs based on the absence of cultural resource sites	SERE West OIC; NBC Env., with NAVFAC SW EV52 support	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:  ----- NBC Env., with NAVFAC SW EV52 support:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
If the focus of DoN training activities shifts to areas that have not been surveyed the training activity will be limited to dispersed foot traffic only until additional survey work can be completed.	RTSWS FEA Page 3-70	Training activities within areas not previously surveyed for cultural resources will be limited to dispersed foot activity until survey work is complete	SERE West OIC; NBC Env., with NAVFAC SW EV52 support	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:  ----- NBC Env., with NAVFAC SW EV52 support:  Date:
Minor ground-disturbing activities such as concentrated foot traffic and assembly on or near historic properties will be limited to those bedrock milling sites with no associated surface artifact component, per the permitted activities recommended in Appendix D of the EA.	RTSWS FEA Page 3-70	Limit minor ground-disturbing activities to those bedrock milling sites with no associated surface artifact component	SERE West OIC; NBC Env., with NAVFAC SW EV52 support	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:  ----- NBC Env., with NAVFAC SW EV52 support:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
No ground disturbing activities of any kind will be permitted on or near historic properties that are comprised of surface artifact scatters or potential subsurface artifact deposits that could be adversely affected by such activities, per the permitted activities recommended in Appendix D of the EA.	RTSWS FEA Page 3-70	No ground-disturbing activities will be permitted on or near historic properties that are comprised of surface artifact scatters or potential subsurface artifact deposits	SERE West OIC; NBC Env., with NAVFAC SW EV52 support	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:  ----- NBC Env., with NAVFAC SW EV52 support:  Date:
After the initial 10 years of the 20-year biological opinion, the Service, Navy, USFS, BLM, and VID will meet to 1) discuss any changes to the project; 2) review the general status of the SRK and arroyo toad, including any relevant changes to the baseline status of these species in the action area (i.e., the “environmental baseline”); and 3) review information gained during the first 10 years in determining the effects of the training on SKR and arroyo toad. Any significant changes may require reinitiation and subsequent re-analysis of the effects of the training on SRK and arroyo toad for the remaining 10 years. [CM-1]	BO Page 7	Navy, USFS, BLM, and VID meet with USFWS to discuss changes and new information	NBC Env.		Ongoing	NBC Env.:  Date:
Digging (except holes done by hand for restoration), disking (except when approved by the Service to support revegetation and restoration efforts), grading, mechanical excavation or deposition of fill will avoid the Arroyo Toad Management Area (ATMA) and SKR-occupied habitat. [CM-2]	BO Page 7	Digging, disking, grading, mechanical excavation or deposition of fill will avoid the ATMA and SKR-occupied habitat	SERE West OIC, NBC Env.	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
To minimize disturbance to arroyo toad, no exercises or activities will be conducted that will alter the natural processes or flow regime of the San Luis Rey River, including siltation, degradation of water quality, or the natural dynamics of downstream sand transport. [CM-3]	BO Page 7	Do not conduct exercises/activities that would alter the natural processes or flow regime of the San Luis Rey River	SERE West OIC, NBC Env.	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:
Training navigation points will be located at least 30 meters (m) [98 feet (ft)] from the bankfull edge of intermittent streams and 100 m (328 ft) from perennial streams. [CM-4]	BO Page 7	Locate navigation points at least 98 ft (30 m) from bankfull edge of intermittent streams and 328 ft (100 m) from perennial streams	SERE West OIC, NBC Env.	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
Personnel will be instructed to urinate at least 30 m (98 ft) from the bankfull edge of intermittent streams and 100 m (328 ft) from perennial streams. Solid human waste will be buried at least 15 centimeters (cm) [6 inches (in)] deep and 91 m (300 ft) from any wash, stream, creek, or riparian area, and all toilet paper will be removed from the area. Portable toilets will be available in the field at assembly/encampment points for the unit training. Students will have access to portable toilets at points in the field upon arrival. These portable toilets will be located at the two main drop-off points. [CM-5]	BO Page 7	Personnel will urinate at least 98 ft (30 m) from the bankfull edge of intermittent streams and 328 ft (100 m) from perennial streams; solid human waste will be buried at least 6 inches deep and 300 ft from wash, stream, creek, or riparian areas and toilet paper will be removed from the area. Portable toilets located at the two main drop-off points will be available for students in the field upon arrival	SERE West OIC	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:
No vehicle traffic will be permitted in riparian areas and across or along sandy alluvial habitats of the San Luis Rey River except for the existing dirt road crossings. [CM-6]	BO Page 7	Vehicle traffic will not be permitted in riparian areas or across/upstream/downstream along sandy alluvial habitats of San Luis Rey River (except for existing dirt road crossings)	SERE West OIC	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:
To offset adverse impacts on the arroyo toad, two dirt road river crossings on the San Luis Rey River will be permanently closed and may be restored as determined by the Naval Base Coronado (NBC) botanist (BO Figure 3). Unused roads may be blocked with natural debris, such as large dead trees or boulders, and additional measures implemented to promote reestablishment of native vegetation in degraded areas. In coordination with the land owner (VID, BLM, or USFS) and Service, site-specific assessments will be made prior to restoration efforts that are to be undertaken. [CM-7]	BO Page 8	Two dirt road river crossings on the San Luis Rey River will be permanently closed and may be restored as determined by the NBC botanist. Unused roads and trails may be blocked with natural debris and additional measures implemented to promote reestablishment of native vegetation; site specific assessments will be conducted prior to restoration efforts in coordination with landowners and USFWS.	SERE West OIC, NBC Env.	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:



Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
<p>SERE instructors will be trained and knowledgeable about the fauna of the action area and able to identify/recognize SKR and arroyo toad. [CM-8]</p>	<p>BO Page 8</p>	<p>SERE instructors will be trained and knowledgeable about proposed action area fauna and able to identify/recognize SKR and arroyo toad</p>	<p>SERE West OIC, NBC Env.</p>	<p>RTSWS Range User Manual</p>	<p>Ongoing</p>	<p>SERE West OIC:  Date: ----- NBC Env.:  Date:</p>
<p>Educational materials (e.g., a brochure) will be developed with information on, and a recognition guide to, arroyo toad and SKR. The brochure will provide information on how to differentiate between similar non-listed species and a synopsis of the training area rules and restrictions to avoid and minimize adverse impacts to these species (e.g., ATMA and speed limits).</p> <p>The brochure will be provided as part of a briefing given by the SERE instructors to all SERE students and other users of the training area before they are allowed access to the training area. The briefing will include a discussion on the natural history of the training area and those federally listed species present in the training area as well as the training area rules and restrictions required to be followed to avoid any adverse impacts on these species. [CM-9]</p>	<p>BO Page 8, 9</p>	<p>Educational materials (i.e., a brochure) will be funded through Navy funding processes; such materials will provide information on, and a recognition guide to, arroyo toad and SKR; information on how to differentiate between similar non-listed species and a synopsis of training area rules and restrictions</p>	<p>SERE West OIC, NBC Env.</p>	<p>RTSWS Range User Manual</p>	<p>Ongoing</p>	<p>SERE West OIC:  Date: ----- NBC Env.:  Date:</p>
<p>All vehicle traffic will be restricted to currently established dirt or paved roads. [CM-10]</p>	<p>BO Page 9</p>	<p>Vehicle traffic will be restricted to currently established dirt/paved roads</p>	<p>SERE West OIC</p>	<p>RTSWS Range User Manual</p>	<p>Ongoing</p>	<p>SERE West OIC:  Date:</p>

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
Areas where students and instructors congregate during the course of instruction will be selected based on the absence of federally listed species and their habitats. [CM-11]	BO Page 9	Select areas for congregation based on absence of natural resources	SERE West OIC, NBC Env.	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:
Whenever the establishment of trails begins to be evident, passive restoration will occur by rotating training activities (e.g., field courses) away from the impacted areas. The intent is to have foot traffic remain dispersed and light throughout RTSWS. [CM-12]	BO Page 9	Ensure foot traffic remains dispersed and light throughout the proposed action area, rotating activity areas when established trails becomes evident	SERE West OIC	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:
Active habitat restoration of established trails or other impacted areas will be included as a management action in the NBC Integrated Natural Resource Management Plan (INRMP). Restoration may be accomplished actively in some areas through seeding and planting. [CM-13]	BO Page 9	Active habitat restoration will be included in the NBC INRMP; restoration may be accomplished through seeding and planting	NBC Env.	INRMP	Ongoing	NBC Env.:  Date:
All trash that may attract predators of SKR and arroyo toad (e.g., corvids, opossums, raccoons) will be removed from the training area and disposed of at least daily in areas or in bins that wildlife cannot access. [CM-14]	BO Page 9	Remove all trash from training area and dispose of regularly in areas or bins where wildlife cannot access	SERE West OIC	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:
No pets, specifically cats and dogs, will be allowed as they may result in an increased level of predation or injury to SKR and arroyo toad. [CM-15]	BO Page 9	No pets will be allowed at the SERE compound or in the field	SERE West OIC	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
Annual surveys to locate, and subsequent annual treatments (e.g., herbicide) of, invasive non-native plants will be included as a management action in the NBC INRMP. Non-native invasive plant species searches and spot treatment control efforts will be prioritized in riparian zones and areas of higher levels of training activity. Surveys and treatment will target species listed by the California Invasive Plant Council as 'severe', 'moderate', or 'limited' and any non-native plants that have the potential to alter ecosystem processes that are not already naturalized throughout the area. [CM-16]	BO Page 9	The NBC INRMP will include a management recommendation to conduct surveys to locate and treat invasive non-native plants/weeds; weed searches and spot treatment control efforts will be prioritized in areas of higher levels of training activity	NBC Env.	INRMP	Ongoing	NBC Env.:  Date:
Staff and students will be instructed to clean clothing and footwear by removing any soil and plant propagules prior to entering the field. All seed removed will be properly disposed. [CM-17]	BO Page 9	Remove and properly dispose of any soil and plant propagules from clothing and footwear prior to entering the field	SERE West OIC	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:
Methods for controlling tamarisk ( <i>Tamarix ramosissima</i> ) and pampas grass ( <i>Cortaderia jubata</i> ) will be modeled after the currently successful methods in southern California. The proposed treatment method(s) will be approved by the landowner prior to implementation. The Navy will also consult with the Service if the work may affect federally listed species. [CM-18]	BO Page 9	Methods for controlling tamarisk will be modeled after the successes already achieved in southern California. Proposed treatment method(s) will be approved by the landowner prior to implementation; the Navy will also consult with USFWS if the work may affect federally listed species	NBC Env.	INRMP  Annual MMR filed with VID in July	Ongoing	NBC Env.:  Date:
Consistent with BLM policy (U.S. Department of Interior 2007), and to avoid potential impacts to SKR and arroyo toad from herbicide drift, broadcast spray of any herbicide will be prohibited. Spot treatments will be conducted during periods when SKR (daytime) and arroyo toad (non-breeding season) are least active.  When in or near riparian areas, wetlands, or aquatic habitats, treatment will be conducted with herbicides approved for use in or near aquatic habitats following label restrictions. [CM-19]	BO Page 10	No broadcast spray of any herbicide will be conducted in the proposed action area; spot treatments will be conducted during periods when SKR and arroyo toad are least active. Within riparian areas, wetlands, and aquatic habitats, herbicide treatments will be conducted only with herbicides that are approved for use in those areas.	NBC Env.	INRMP  Annual MMR filed with VID in July	Ongoing	NBC Env.:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
An ATMA, designed to avoid and minimize impacts to the onsite population of the arroyo toad, will be established on the east side of SR-79 (BO Figure 2). The boundary of the ATMA will extend 500 m (1,640 ft) from the center of the waterway on each side and along its entire length within RTSWS. [CM-20]	BO Page 10	Establish an ATMA on the east side of SR-79	NBC Env.	INRMP	Ongoing	NBC Env.:  Date:
Arroyo toad surveys will be conducted at least every 3 years to determine status and location. If arroyo toads are discovered in areas outside of the current ATMA, these locations will be added to the ATMA and managed accordingly. Furthermore, if arroyo toads are not discovered for many years (at least 9 years) in previously occupied locations, these areas may be eliminated from the existing ATMA. Updated maps depicting ATMA boundaries and arroyo toad locations will be provided to the Service upon survey completion and posted in appropriate locations at RTSWS. [CM-20a]	BO Page 10	Conduct arroyo toad surveys at least every 3 years to determine status and location; upon survey completion, provide updated maps to USFWS with updated ATMA boundaries, if appropriate, and arroyo toad locations	NBC Env.	INRMP  Survey Report, Maps	Ongoing	NBC Env.:  Date:
Informational signage will be installed at the access points to the ATMA as well as at strategic areas and river crossings, notifying personnel that the area is sensitive arroyo toad habitat and not to be impacted by off-road or off-trail vehicle traffic. [CM-20b]	BO Page 10	Install informational signage at ATMA access points, strategic areas and river crossings notifying personnel of sensitive arroyo toad habitat and not to be impacted by off-road/ off-trail vehicle traffic	SERE West OIC, NBC Env.	INRMP	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:
A nighttime (sunset to sunrise) speed limit of 24 kilometers per hour (kph) [15 miles per hour (mph)] will be followed by all vehicles within the ATMA. Drivers will take all reasonable precautions to avoid vehicle strikes of Arroyo toad.[CM-20c]	BO Page 10	All vehicles will follow a nighttime speed limit within the ATMA and take precautions to avoid Arroyo toad vehicle strikes	SERE West OIC	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:
Three terrestrial toad species similar in appearance to Arroyo toad are found at RTSWS. To avoid inadvertent death or injury to Arroyo toad as a potential food source, killing or capturing of any toad or frog species for the purposes of survival training will be prohibited within the mapped ATMA. [CM-20d]	BO Page 10	Killing or capturing any toad or frog species for survival training will be prohibited within the mapped ATMA	SERE West OIC	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
To avoid inadvertent death or injury of Arroyo toad young as a potential food source, no tadpoles of any species will be captured for survival training within the ATMA during the Arroyo toad breeding season (April 1-July 31). [CM-20e]	BO Page 10	No tadpoles of any toad or frog species will be captured for survival training will be prohibited within the mapped ATMA during Arroyo toad breeding season	SERE West OIC	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:
Control and removal of non-native bullfrogs ( <i>Rana catesbeiana</i> ) from riparian and wetland areas will be requested for funding as part of the INRMP. [CM-20f]	BO Page 10	Request funding as part of NBC INRMP for control and removal of non-native bullfrogs from riparian and wetland areas	NBC Env.	INRMP	Ongoing	NBC Env.:  Date:
Informational signage will be installed on Fink Road on VID land west of SR-79, notifying personnel that the area is sensitive SKR habitat and prohibiting off-road or off-trail vehicle traffic. [CM-21]	BO Page 11	Install informational signage on Fink Road on VID land west of SR-79 notifying personnel of sensitive SKR habitat and prohibiting off-road/ off-trail vehicle traffic	SERE West OIC, NBC Env.	INRMP	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:
A nighttime (sunset to sunrise) speed limit of 24 kph (15 mph) will be posted and enforced for all vehicles within SKR habitat. Drivers will take all reasonable precautions to avoid vehicle strikes of any species of kangaroo rat, which are similar in appearance.[CM-22]	BO Page 11	All vehicles will follow a nighttime speed limit within SKR habitat and take precautions to avoid all kangaroo rat vehicle strikes	SERE West OIC	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:

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Areas where students and instructors may congregate during the course of instruction will be sited away from mapped SKR habitat. Foot traffic will remain dispersed and light with rotation of activity areas (such as navigation points) whenever the establishment of trails begins to be evident. [CM-23]	BO Page 11	Site congregation areas away from mapped SKR habitat; ensure foot traffic remains dispersed and light and that activity areas rotate when trails begin to be evident	SERE West OIC, NBC Env.	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:
SKR surveys will be conducted at least every 3 years to determine status and location. Updated occupancy maps will be provided to the Service upon survey completion and posted in appropriate locations at RTSWS. [CM-24]	BO Page 11	Conduct SKR surveys at least every 3 years to determine status and location; upon survey completion, provide updated occupancy maps to USFWS	NBC Env.	INRMP  Survey Report, Maps	Ongoing	NBC Env.:  Date:
To avoid death or injury to the SKR as a potential food source, the killing or capturing of any kangaroo rat species for the purposes of survival training is prohibited within occupied areas (BO Figure 2). [CM-25]	BO Page 11	Killing or capturing any kangaroo rat species for survival training will be prohibited within occupied areas	SERE West OIC	RTSWS Range User Manual	Ongoing	SERE West OIC:  Date:
The Navy shall conduct surveys to monitor and assess the number of SKR and Arroyo toad taken. [RPM-1]	BO Page 30	Conduct surveys to monitor SKR and Arroyo toad takes	SERE West OIC, NBC Env.	INRMP  Survey Report	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:

Minimization, Mitigation, Reporting Measures	Environmental Driver (Doc/Page)	Implement. Procedure or Action	Responsible Organization	Deliverable/ Report	Compliance Schedule	Verification of Compliance
Road kill surveys shall occur when SKR and Arroyo toad are most active (April through July for both species) and shall follow immediately (within 2 days) after training activities. Road kill surveys along Fink Linton and the main evasion road (adjacent to SR-79) shall occur during training exercises to differentiate between Navy and non-Navy fatalities. [T&C-1.1]	BO Page 30	Conduct road kill surveys to monitor SKR and Arroyo toad takes	SERE West OIC, NBC Env.	INRMP Survey Report	Ongoing	SERE West OIC:  Date:  ----- NBC Env.:  Date:
Survey results shall be provided to the Service annually, who may recommend other measures to reduce road kill. [T&C-1.2]	BO Page 30	Provide survey results to USFWS annually	NBC Env.	Survey Report	Ongoing	NBC Env.:  Date:
The CFWO shall be notified within 3 working days should any endangered or threatened species be found dead or injured as a direct or indirect result of the implementation of this project. Notification must include the date, time, and location of the carcass, and any other pertinent information. Dead animals should be marked in an appropriate manner, photographed, and left on site. Injured animals should be transported to a qualified veterinarian. Should any treated animals survive, this office should be contacted regarding the final disposition of the animals. The office contact person is Kurt Roblek, who may be contacted at the letterhead address or at (760) 431-9440. [T&C-Disposition of Sick, Injured, or Dead Specimens]	BO Page 30	Notify USFWS within 3 working days if any endangered or threatened species are found dead or injured as a result (direct or indirect) of this project; deal with dead and injured species appropriately	SERE West OIC, NBC Env.	Survey Report	Ongoing	NBC Env.:  Date:

**Abbreviations:**

AOIC	Assistant Officer-in-Charge	MBTA	Migratory Bird Treaty Act
ATMA	Arroyo Toad Management Area	MMR	Mitigation Monitoring Report
BA	Biological Assessment	mph	Miles Per Hour
BLM	Bureau of Land Management	NAVFAC	Naval Facilities Engineering Command Southwest
BMPs	Best Management Practices	SW	
BO	Biological Opinion	NBC	Naval Base Coronado
CALFIRE	California Department of Forestry and Fire Protection	NBC Env.	Naval Base Coronado Environmental Staff
CDFW	California Department of Fish and Wildlife	NFDRS	National Fire Danger Rating System
CFWO	Carlsbad Fish and Wildlife Office	OIC	Officer-in-Charge
CNF	Cleveland National Forest	ROD	Record of Decision
CNPS	California Native Plant Society	RTSWS	Remote Training Site Warner Springs
CO <sub>2</sub>	Carbon Dioxide	RTSWS	Remote Training Site Warner Springs Environmental
CSF	Center for Security Forces	FEA	Assessment Final May 2010
DoD	Department of Defense	SERE	Survival, Evasion, Resistance, and Escape
DoN	Department of the Navy	Service	United States Fish and Wildlife Service
DPO	Duty Petty Officer	SKR	Stephens' Kangaroo Rat
ECC	Emergency Command Center	SR-79	State Route 79
EIS	Environmental Impact Statement	USACE	United States Army Corps of Engineers
EMS	Environmental Management System	USDI	United States Department of the Interior
ESA	Endangered Species Act	USFS	United States Forest Service
FMP	Fire Management Plan	USFWS	United States Fish and Wildlife Service
FR	Federal Register	VID	Vista Irrigation District
ft	feet, foot	WMA	San Luis Rey Weed Management Area
GPS	Global Positioning System	(BR-#)	Biological Resources Mitigation Measure # (RTSWS FEA)
INRMP	Integrated Natural Resource Management Plan	(CM-#)	Conservation Measure # (BO)
kph	Kilometers Per Hour	(RPM-#)	Reasonable and Prudent Measure # (BO)
LZ	Landing Zone	(T&C-#)	Terms and Conditions # (BO)
m	Meter(s)		