Final Draft
Habitat Conservation Plan
for the
Morro Shoulderband Snail
(*Helminthoglypta walkeriana*)
216 Madera Street
(APN 074-483-013)
Community of Los Osos
San Luis Obispo County, California

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Executive Summary

Joaquin B. Lewis and Gwenda E. Barnes, as property owners and co-applicants, seek an incidental take permit under section 10(a)(1)(B) of the Endangered Species Act of 1973, as amended, to cover the incidental take of the Morro shoulderband snail (= banded dune snail; *Helminthoglypta walkeriana*). Take would be the result of the lawful construction and occupation of a single-family residence on a partially developed parcel located at 216 Madera Street (Assessor Parcel Number 074-483-013) in the unincorporated community of Los Osos, County of San Luis Obispo, California.

A 10-year permit term is requested to address incidental take of Morro shoulderband snail associated with the construction, maintenance, and occupation of a single-family residence on a 20,038 square-foot (0.46-acre) legal parcel. Project implementation is likely to result in incidental take of Morro shoulderband snail in all life stages.

The Morro shoulderband snail is federally endangered terrestrial invertebrate that is endemic to the Los Osos and Baywood Park areas of central coastal San Luis Obispo County. While several federally listed species are known to occur in this area, only the Morro has the potential to be affected by the project. Due to the project's small size and location away from areas of habitat occupied by the species, construction and occupation of a single-family residence is not anticipated to significantly affect the survival and recovery of Morro shoulderband snail population in the wild.

The conservation strategy within this habitat conservation plan is consistent with the recovery criteria for the Morro shoulderband snail. Measures to minimize and mitigate take of the species include the following:

- Pre-construction surveys to identify Morro shoulderband snails, in all life stages, present in the work area;
- Capture and moving of identified Morro shoulderband snails out of harm's way to a pre-selected, Service-approved receptor site;
- Pre-construction environmental awareness training for all construction personnel to be delivered prior to the commencement of any activities that could result in take;
- Construction monitoring;
- Payment of an in-lieu fee to fund recovery task actions for Morro shoulderband snail on conserved lands within the known range of the species through deposit of $4,500 into the Impact Directed Environmental Account administered by the National Fish and Wildlife Foundation.

Implementation of the above measures will be non-discretionary conditions of any issued incidental take permit. . The project is also in compliance with the California Environmental Quality and California Coastal Acts; a construction permit (PMT2009-01239) was issued on July 23, 2010 by the County of San Luis Obispo.;

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Section 1--Introduction and Background

The project consists of the completion of construction for a single-family residence in Cabrillo Estates, a subdivision in the community of Los Osos, California. The parcel is within the known distribution of the Morro shoulderband snail, a federally endangered terrestrial invertebrate endemic to the area. Therefore, any disturbance (e.g., construction activities) that could result in take of the species, in any form, must be minimized and mitigated in accordance with section 10(a)(1)(B) of the Endangered Species Act of 1973, as amended (Act).

Several surveys conducted prior to 2014 did not identify Morro shoulderband snails within that portion of the parcel to be developed. As such, the U.S. Fish and Wildlife Service (Service) concurred that take of the species was not likely to occur and formalized this in a May 4, 2007 letter (U.S. Fish and Wildlife Service 2007). This concurrence was reissued on May 4, 2009, to extend through October 2010 (U.S. Fish and Wildlife Service 2009). Prior to the commencement of land clearing activities, Dan Dugan, a Service approved biologist, inspected the parcel to ensure that no take of the Morro shoulderband snail was likely to occur. In the summer of 2010, a septic system was installed and construction of the building foundation began. No further construction has occurred on the parcel since that time.

The applicants wish to continue construction of a single-family residence on the parcel. Due to the amount of time that had time elapsed since construction ceased, the Service required that the site be again assessed for the presence of Morro shoulderband snail within the work area. Three live snails were found in March 2014 on the western side of the building foundation within the area designated as the construction zone (Tenera 2014). The previous concurrence from the Service was predicated on take of the species being wholly avoidable; however, present conditions reveal that take of Morro shoulderband snail is likely to occur in association with the completion of construction for the single-family residence. As such, it became necessary to develop a habitat conservation plan (HCP) to support an application to the Service for an Incidental Take Permit (ITP) to authorize take of Morro shoulderband snail in association with this otherwise lawful activity.

Applicant and Permit Term

Joaquin B. Lewis and Gwenda E. Barnes, as the legal owners and co-applicants, request an ITP to authorize the incidental take of Morro shoulderband snail for a period of 10 years commencing upon the date of approval by the Service. They request this permit pursuant to section 10(a)(1)(B) of the Act. As the applicants, they would become the permittees of an issued ITP. It is anticipated that the requested 10-year term will be sufficient to complete the construction of the single-family residence and associated landscaping/infrastructure.

Permit Area/Covered Lands

The covered lands addressed in this HCP and subject of the ITP is APN 074-483-013, an approximately 0.46-acre (20,038 square feet) parcel located at 216 Madera Street in the community of Los Osos, an unincorporated portion of San Luis Obispo County, California (Figure 1, Appendix A). The property is found on the United States Geological Survey Morro

Bay South 7.5 minute quadrangle map (Figure 2, Appendix A) and is legally described as County of San Luis Obispo Assessor Parcel Number (APN) 074-483-013 (Figure 3, Appendix A). Hereafter, it will be referred to as the "Lewis-Barnes" parcel.

Species to be Covered by the Permit

This HCP is intended to provide the basis for issuance of an ITP that would authorize the incidental take of Morro shoulderband snail, a terrestrial invertebrate species endemic to the Los Osos and Baywood Park area of coastal San Luis Obispo County. A survey conducted in March 2014 identified the presence of the Morro shoulderband snail on the subject parcel (Tenera Environmental 2014; Appendix B). No other federally listed species are present onsite.

Regulatory Framework

Federal Endangered Species Act

The Service's responsibilities include administering the Act. Section 9 of the Act prohibits the take of any federally listed endangered or threatened species. Take is defined in Section 3(19) of the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Service regulations in 50 CFR 17.3 further define harm to include significant habitat modification or degradation that actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering. Harassment is defined as an intentional or negligent action that creates the likelihood of injury to wildlife by annoying a species to such an extent that its normal behavioral patterns (e.g., breeding, feeding, or sheltering) are significantly disrupted. The Act provides for civil and criminal penalties for the unlawful taking of listed species. Exemptions to the prohibitions against take may be obtained through coordination with the Service in two ways. If a project is to be funded, authorized, or carried out by a Federal agency and may affect a listed species, the Federal agency must consult with the Service pursuant to section 7(a)(2) of the Act.

In order to comply Federal law, private individuals and State and local or other entities who propose an action that is likely to result in the take of federally listed species and for which there is no Federal nexus, may achieve compliance with the Act by applying for an incidental take permit pursuant to section 10(a)(1)(B) of the Act. Such permits are issued by the Service when take is not the intention of and is incidental to otherwise legal activities. An application for an incidental take permit must be accompanied by a habitat conservation plan (HCP). The regulatory standard under section 10(a)(1)(B) of the Act requires that the effects of authorized incidental take be minimized and mitigated to the maximum extent practicable. Under section 10(a)(1)(B) of the Act, a proposed action also must not appreciably reduce the likelihood of survival and recovery of the species in the wild. Adequate funding of identified actions to minimize and mitigate impacts must also be ensured.

Section 7(a)(2) of the Act requires that Federal agencies ensure that their actions, including permit issuance, do not jeopardize the continued existence of listed species or destroy or adversely modify listed species' critical habitat. Pursuant to 50 CFR 402.2, "Jeopardize the continued existence of…" means to engage in an action that would reasonably be expected, directly or indirectly, to appreciably reduce the likelihood of both the survival and recovery of a

listed species in the wild by reducing the reproduction, numbers, or distribution of that species. Issuance of an incidental take permit by the Service, pursuant to section 10(a)(1)(B) of the Act, constitutes a Federal action that is subject to the requirements of section 7. As such, as a Federal agency issuing a discretionary permit, the Service must prepare an internal consultation to address our action.

The Section 10(a)(1)(B) Incidental Take Permit Process

The process for obtaining am incidental take permit (ITP) has three primary phases: (1) development of the HCP; (2) processing of the permit; and (3) post-issuance compliance. During development of the HCP, the project applicant prepares a plan that integrates the proposed project or activity with protection of listed species. Every HCP submitted in support of an incidental take permit application must include the following information: (1) those impacts likely to result from the proposed taking of the species for which permit coverage is requested; (2) measures that will be implemented to monitor, minimize, and mitigate impacts; funding that will be made available to undertake such measures; and procedures to deal with unforeseen circumstances; (3) alternatives to the proposed action that would not result in take; and (4) any additional measures Service may require as necessary or appropriate for purposes of the plan.

During the post-issuance phase, the permittee(s) and other responsible entities implement the HCP. The Service monitors the permit compliance as well as the long-term progress and successful implementation of the HCP. The HCP development phase concludes and the permit processing phase begins when a complete application package is submitted to the appropriate permit-issuing office. A complete application package consists of the permit application and its $100 fee, the HCP, and an Implementing Agreement (IA) if determined to be necessary. The Service must also publish a Notice of Availability the application in the *Federal Register* to allow for public comment. The Service also prepares an internal Biological Opinion pursuant to section 7 and prepares Findings to evaluate the section 10(a)(1)(B) permit application to ensure it meets permit issuance criteria. Compliance with the National Environmental Policy Act (NEPA) is ensured by the preparation of an Environmental Action Statement, Environmental Assessment, or Environmental Impact Statement that go out for a 30, 60, or 90-day public comment period, respectively. An implementing agreement is accompanies the HCP except in cases where the HCP is categorically excluded from NEPA and eligible for processing as a low-effect HCP. The ITP is issued upon the Service's determination that all requirements for permit issuance have been met. These criteria require that: (1) the taking will be incidental; (2) the impacts of incidental take will be minimized and mitigated to the maximum extent practicable; (3) the taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild; (4) the applicant will provide additional measures that the Service requires as being necessary or appropriate; and (5) the Service has received assurances, as may be required, that the HCP will be implemented.

During the post-issuance phase, the permittee(s) and any other responsible entities implement the HCP. The Service will monitor compliance with the HCP as well as its long-term progress and success. The public is notified of permit issuance through a publication in the *Federal Register.*

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The National Environmental Policy Act

The purpose of NEPA is two-fold: to ensure that Federal agencies examine environmental impacts of their actions (e.g., whether or not to issue an ITP) and to employ public participation. This Federal act serves as an analytical tool to examine direct, indirect, and cumulative impacts of the proposed project alternatives in order to inform the Service regarding whether or not to issue an ITP pursuant to section 10(a)(1)(B) of the Act. Compliance with NEPA is required for each HCP as part of the ITP application process. The NEPA compliance for the issuance of this requested ITP is a categorical exemption.

The National Historic Preservation Act

All Federal agencies are required to examine the potential for their considered action to result in impacts to cultural impacts. This requires consultation with the State Historic Preservation Office and any potentially affected American Indian tribe. All ITP applicants are requested to submit a Request for Cultural Resources Compliance form to the Service along with the draft HCP. Depending on the nature of the information provided, the applicant(s) may be required to conduct cultural resource surveys and provide mitigation for any identified significant impacts to cultural resources.

Other Relevant Laws and Regulations

- **California Endangered Species Act:** The California Endangered Species Act (CESA) generally parallels the main provisions of the Act and provides for the designation of native species or subspecies of plants, fish, and wildlife as endangered or threatened. Section 2080 prohibits the take of state listed endangered or threatened species but allows for the incidental take of such species as a result of otherwise lawful development projects under section 2081(b) and (c). The Morro shoulderband snail is not listed under CESA; therefore, a State of California ITP is not required for the Lewis-Barnes project.

- **California Environmental Quality Act:** The California Environmental Quality Act (CEQA) is a state statute that is generally analogous to NEPA on the Federal level in that it requires the environmental review for projects that may result in impacts to the human environment and environmental resources. It requires public agencies to review the environmental impacts of proposed projects, prepare a categorical exclusion, negative declaration, or environmental impact reports to address these potential effects, provide feasible alternatives, and consider mitigation measures that would reduce environmental impacts to a level that is less than significant. The County of San Luis Obispo (County) is the local lead agency responsible for providing CEQA review and ensuring compliance for projects under its jurisdiction. This includes the unincorporated community of Los Osos. This parcel underwent CEQA review during issuance of Construction Permit PMT2009-01239.

- **California Coastal Act of 1976:** A California voter initiative, Proposition 20 (*i.e.*, the Coastal Zone Conservation Act) passed in 1972 creating the California Coastal Commission (Commission). It was later made permanent through the passage of the California Coastal Act of 1976. The Commission is a State agency charged with

ensuring that all development within California's coastal zone (CZ) is consistent with the provisions of the Coastal Act of 1976. Commission jurisdiction within the CZ is broad, applies to both private and public entities, and addresses almost all types of development activities inclusive of division of land, changes in the intensity of use of state waters, and of public access to waters. The regulatory role of the Commission is facilitated through their review of development projects and the issuance of Coastal Development Permits (CDP) that typically include conditions of approval that, if met, will bring the development into compliance with the Coastal Act. In circumstances where a Local Coastal Program (LCP) has been prepared by a local agency and certified by the Commission, it serves, in effect, as the environmental review. In such cases, the issuance of a CDP is the responsibility of the local agency. The Commission retains ultimate oversight and responsibility for compliance through an appeal process. One of the primary provisions of the Coastal Act is to preserve, protect, and enhance environmentally sensitive habitat areas (ESHA). Section 30107.5 of the Coastal Act defines an ESHA as "Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments." The entire community of Los Osos, including the Lewis-Barnes parcel, lies within the CZ. Compliance with the Coastal Act was ensured during issuance of Construction Permit PMT2009-01239.

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Section 2--Project Description and Covered Activities

Project Description

The proposed project involves the construction and maintenance of a single-family residence, inclusive of associated landscaping and required hazard abatement, on the Lewis-Barnes parcel. Proposed covered activities include permanent and temporary impacts that are likely to result in take of Morro shoulderband snail and adversely impact its habitat on the Ness parcel (see below). The proposed project design/footprint is provided in Figure 5 in Appendix B.

Covered Activities

Covered activities include both temporary and permanent impacts and are listed below:

Temporary Impacts:

- Staging area for construction activities
- Trenching for the installation of utilities and other infrastructure from the curb to the residence
- Installation of leach lines
- Dust, water overspray during construction

Permanent Impacts:

- Vegetation clearing and site preparation (e.g., grading)
- Installation of the foundation and other hardscape such as a driveway, patio, etc.
- Hazard abatement activities as required by CALFIRE, the local fire protection agency
- Installation and maintenance of landscaping

All of the above activities described are legal actions and are consistent with the County of San Luis Obispo ordinances and regulations, as well as the requirements of Construction Permit PMT2009-01239.

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Section 3--Environmental Setting and Covered Species

Environmental Setting

Climate

The community of Los Osos experiences a coastal Mediterranean climate characterized by long, dry, summers and short, wet, mild winters. Fog is common during the late spring and summer months and moderates summer temperatures. Temperatures range from 48 F to 69 F during the summer, with an average of 58 F and from 42 F to 66 F during the winter months, with an average temperature of 53 F. On average the warmest month is October and the coolest month is January. Rainfall is highly variable within and between winter seasons with an average of 49 days with measurable precipitation annually. The average annual precipitation in Los Osos is 17.6 inches with most of the precipitation occurring from November to April and highest rainfall occurring in February.

Topography/Geology

The Lewis-Barnes parcel is located within the Cabrillo Estates residential subdivision where elevations range between 175 to 850 feet above mean sea level (AMSL). The subject parcel occurs in the lower portion of the subdivision with elevation varying from approximately 182 feet to approximately 200 feet AMSL.

The Los Osos–Baywood Park area is part of the rolling, stabilized, pre-Flandrian aged dunes located at the southern end of the Morro Bay estuary. Underlying soils consist of well-drained sandy loam in the Baywood fine sand (9-15 percent slopes) series (USDA 1984). The area is within a seismically active region that includes several earthquake faults, most notably the Los Osos faultzone, which cuts through the Los Osos Valley in an east-west fashion.

Hydrology/Streams, Rivers, Drainages

The subject parcel lies within the southwestern region of the Morro Bay watershed and is located approximately 0.7 mile from the southern shore of the estuary at Morro Bay. The Morro Bay watershed drains directly into the Morro Bay Estuary. Surface runoff is conveyed across the parcel toward the northwest and through parcels that have been developed to single-family residences. The parcel is comprised wholly of terrestrial habitat; no hydrologic features are present onsite.

Existing and Surrounding Land Uses

The subject parcel is bordered to the west by existing single-family residences; to the east by Madera Street across which are single-family residences and vacant lots; to the north by a driveway to Cabrillo Estates Parcel 014 (APN 074-483-004, developed as a single-family residence); and to the south by Cabrillo Estates Parcel 012 (APN 074-483-012, currently vacant).

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The parcel has been partially cleared of vegetation consistent with concurrence from the Service that this activity was not likely to result in take of Morro shoulderband snail (U.S. Fish and Wildlife Service 2007, 2009). Currently, the parcel has a construction zone cleared of vegetation, a building foundation, and a septic system. Utilities currently provided at the curb (as part of the creation of the Cabrillo Heights subdivision) include water, electric, power, gas and cable. No additional construction activities or site disturbance has occurred since the summer of 2010.

The plant community on the site is characteristic of disturbed sites and has recently been mowed for compliance with fire/weed abatement requests from Cal Fire. Vegetation at the time of the most recent MSS survey was relatively sparse with the most abundant plants consisting of non-native veldt grass (*Ehrharta calycina*) and a mix of both native and non-native herbs. These included croton (*Croton californicus*), telegraph weed (*Heterotheca grandiflora*), Bermuda buttercup (*Oxalis pes-caprae*), mustard (*Brassica* spp.), and an escaped matforming ornamental (*Myoporum parvifolium*). Other less abundant species noted included native Heermann's bird's foot trefoil (*Lotus heermannii var. orbicularis*), deerweed (*Lotus scoparius*), and non-native narrow-leaved iceplant (*Conicosia pugioniformis*).

Approximately 16 coyote brush (*Baccharis pilularis*) shrubs remain on the site as well as a few new coyote brush sprouts. A single bush lupine shrub (and seedling) was also noted on the site. The chain link fence along the southern property line crosses through a small, isolated stand of coast live oaks (*Quercus agrifolia)* between the subject parcel and parcel APN 074-483-012.

Covered Species

Morro shoulderband snail is the subject of this HCP and the only species for which incidental take is requested in the ITP. This section summarizes the limited body of information currently available for the species, including its status and distribution, taxonomy and description, natural history, and distribution and abundance on the subject parcel.

Status and Distribution

The Morro shoulderband snail is a native gastropod endemic to the Los Osos area of western San Luis Obispo County. It was listed by the Service as endangered on December 15, 1994 (Service 1994). The original listing recognized two subspecies or interspecific variations of the Morro shoulderband snail, *Helminthoglypta walkeriana* and *H. walkeriana* var. *morroensis*. At the time of listing *H. walkeriana* and *H. w. morroensis* (= *H. w.* var. *morroensis*) were classified as a single species under the taxonomic classification prescribed in Roth (1985). A recent re-examination of the taxonomic status of the two variants by Roth and Tupen (2004) resulted in their classification as separate species, *H. walkeriana* (Hemphill 1911), the Morro shoulderband snail; and *H. morroensis* (Hemphill 1911), the Chorro shoulderband snail. At the time of the listing, the range of *H. walkeriana* was described as being restricted to sandy soils of coastal dune and coastal sage scrub communities near Morro Bay and included areas south of Morro Bay, west of Los Osos Creek, and north of Hazard Canyon. The current known range is slightly expanded and encompasses approximately 7,700 acres, extending from Morro Strand State Beach in northern Morro Bay southward to Montaña de Oro State Park and inland to at least Los Osos Creek in eastern Los Osos (Roth and Tupen 2004; Service 2006). Based on the preliminary

findings of Roth and Tupen (2004), the Service issued a position statement announcing that the unintended protection of *H. morroensis* under the Act would be discontinued (Service 2004). Protection under the Act is still provided for *H. walkeriana*, the species that is restricted to sandy soil substrates in and around the community of Los Osos.

A recovery plan for the species, *Recovery Plan for the Morro Shoulderband Snail and Four Plants from Western San Luis Obispo County, California,* was published on September 26, 1998 (Service 1998). The plan identifies four Conservation Planning Areas where conservation and habitat protection efforts will be focused to facilitate the recovery of the Morro shoulderband snail and the four plant species also addressed in the plan. Critical habitat was designated for Morro shoulderband snail on February 7, 2001 (Service 2001). It includes three units that comprise a sum total of 2,566 acres of coastal dune, coastal dune scrub, and maritime chaparral habitats in and around the community of Los Osos and the Morro Bay Estuary (Service 2001). A five-year status review for the Morro shoulderband snail was prepared (Service 2006) and concluded that the Morro shoulderband snail population is stable to increasing and that threats to the species have been reduced considerably; however, recovery criteria have not been fully achieved.

Species Taxonomy and Description

The Morro shoulderband snail belongs to the phylum Mollusca, class Gastropoda, subclass Pulmonata, order Stylommatophora, family Helminthoglyptidae, genus *Helminthoglypta*, subgenus *Charodotes*, species *walkeriana*. It was first described in Hemphill (1911) as *Helix walkeriana* from specimens collected from habitat in "San Luis Obispo, Cal." but reassigned to the genus *Helminthoglypta* by subsequent malacologists (Field 1930; Pilsbry 1939; Roth 1985). The genus *Helminthoglypta* currently contains three subgenera comprising 100 or more species and subspecies with individual ranges located between southwestern Oregon and Baja California, and from the Sierra Nevada and Mojave Desert westward to the Pacific coast, including islands off Baja California and California. In San Luis Obispo County, the genus is represented by six species in two subgenera, *Helminthoglypta* and *Charodotes*. The subgenus *Helminthoglypta* includes two species, *H. cuyama* (Cuyama shoulderband snail) and *H. umbilicata* (Big Sur shoulderband snail), and the subgenus *Charadotes* includes four species: *H. walkeriana* (Morro shoulderband snail), *H. carpenteri*, (San Joaquin shoulderband snail), *H. fieldi* (surf shoulderband snail), and the recently named *H. morroensis* (Chorro shoulderband snail). The shell of the Morro shoulderband snail is described as umbilicated, globose, reddish brown to chestnut in color but thin and slightly translucent (Hemphill 1911; Roth 1985). The shell has five to six whorls and a single, narrow (2 to 2.5 mm [0.08 to 0.1 in.]), dark spiral band on the "shoulder" with thin light yellowish margins above and below. Sculptural features of the shell include incised spiral grooves, spiral and transverse striae that give the surface a checkerboard appearance, and papillae at the intersections of some of the striae (Service 1994). Adult shell dimensions range from 18 to 29 mm (0.7 to 1.1 in.) in diameter and from 14 to 25 mm (0.6 to 1.0 in.) in height (Roth 1985).

Shoulderband snails can be distinguished from the sympatric non-native European garden snail (*Helix aspersa*) and cellar glass snail (*Oxychilus cellarius*) by the presence of both an umbilicus and the single narrow, dark brown spiral band on the "shoulder" of the shell. *Helix aspersa* lacks an umbilicus and has a multi-band, marbled pattern on the shell. An umbilicus is present in *O.*

cellaruis, however, the shell lacks any dark banding. Among *Helminthoglypid* snails (subgenera *Helminthoglypta* and *Charodotes*) that occur in San Luis Obispo County, species can generally be distinguished by shell morphology, however, the shell morphology, ecological associations, geographic isolation, and analysis of soft tissue are used for more definitive classification.

Two *Helminthoglyptid* species occur within the known range of the Morro shoulderband snail: the Big Sur shoulderband snail and the Chorro shoulderband snail. The Big Sur shoulderband snail occurs from the Monterey Peninsula in Monterey County south into northern Santa Barbara County and is common in San Luis Obispo County from Atascadero and San Luis Obispo west to the coast, including the range of the Morro shoulderband snail. The Big Sur shoulderband snail and Morro shoulderband snail occur sympatrically at many locations and specimens of each have been found in similar habitat and in relatively close proximity to each other (Dugan, personal observation). The Morro shoulderband snail can be distinguished from the Big Sure shoulderband snail by its more globose shape, the presence of incised striae, papillations over all or most of the body whorl, and half or more of the umbilicus covered by the apertural lip (Roth 1985). The Big Sure shoulderband snail tends to have a more depressed shell shape with a shinier, malleated surface and little or no occlusion of the umbilicus. The Morro shouldberband snail and the Chorro shoulderband snail were elevated to separate full species status based on differences in soft tissue, shell morphology, and differing habitat associations. The shell of the Chorro shoulderband snail can be distinguished from that of the Morro shoulderband snail by its more depressed shape (ratio of shell height to shell width), larger, less occluded umbilicus, more profusely granulated surface, and weak to absent incised spiral grooves on the body whorl (Tupen and Roth, 2005). Until recently the two species were not known to occur sympatrically, with the Morro shoulderband snail occurring only on Baywood fine sand soils and the Chorro shoulderband snail being also associated with clay or serpentine soils; however, in 2005 the shells of both species were collected at a location with Briones-Tierra complex soils near the northeastern extent of the suspected range of the Morro shoulderband snail, indicating some level of sympatry (Dugan, personal observation, 2005). During 2007, the shells of both species were also collected at two locations with Baywood fine sand soils within the City of Morro Bay (Dugan personal observation, 2007).

Natural History

Despite increased attention due to its status as a federally endangered species, relatively little is known about the demographics and ecology of the Morro shoulderband snail. In its native habitat on Baywood fine sandy soils, the Morro shoulderband snail is typically found in the accumulated leaf litter and the undersides of lower branches of shrub species of coastal dune scrub. The species is associated with Baywood series sandy soils that support coastal dune, coastal dune scrub, and open maritime chaparral plant communities in the Los Osos and Morro Bay region of Central California. Morro shoulderband snails typically inhabit dense, shrubby, or prostrate vegetation that has considerable contact with the ground. The early successional stages of these native plant communities are thought to offer more favorable habitat than mature stands, which may have branches that are too high off the ground to offer good cover (Roth 1985). Within such habitat, Morro shoulderband snails typically occupy shaded areas with accumulated plant litter or the undersides of low shrub branches. These areas provide a microclimate that moderates temperature and moisture loss, and provides refuge from the desiccating effects of wind. It has been suggested that vegetation on north-facing slopes is slightly more dense and

shrubby than on south-facing slopes and therefore may support a substantially greater abundance of the species (Roth 1985). Known plant associates include both native and non-native species. Typical native plant associates include dune ragwort (*Senecio blochmaniae*), California sandaster (*Lessingia filaginifolia*), mock heather (*Ericameria ericoides*), buckwheat (*Eriogonum parvifolium*), eriastrum (*Eriastrum densifolium*), silver lupine (*Lupinus chamissonis*), seaside woolly sunflower (*Eriophyllum staechadidfolium*), dune almond (*Prunus fasciculata punctata*), dudleya (*Dudleya* spp.), California croton (*Croton californicus*), black sage (*Salvia melifera*), California sagebrush (*Artemisia californica*), coyote brush (*Baccharis pilularis*), poison-oak (*Toxicodendron diversilobum*), California poppy (*Eschscholtzia californica*), and deerweed (*Lotus scoparius*) (Roth 1985; Service 2003; Roth and Tupen 2004; Dugan, personal observation). The most commonly reported non-native plant associates are perennial veldt grass (*Ehrharta calycina*) and sea fig/hotentot fig (*Carpobrotus* spp.); however, Morro shoulderband snails have been found occupying other non-native invasive plants including conicosia (*Conicosia pugioniformis*), pampas-grass (*Cortaderia jubata*), German ivy (*Senecio mikanioides*), fennel (*Foeniculum vulgare*), and myoporum (*Myoporum laetum* (Dugan, personal observation). Live Morro shoulderband snails and vacant shells have also been found in a variety of ornamental plants including rock-rose (*Cistus* sp.), aloe (*Aloe* sp.), jade plant (*Crassula ovata*), lilies of the Nile (*Agapanthus africanus*) (Dugan, personal observation). Individuals have also been found on anthropogenic structures such as fences, construction materials, urban debris, and woodpiles (Belt, pers. comm. 2013; SWCA 2013).

Morro shoulderband snails are most active during wet conditions and most feeding, reproduction, and individual growth is thought to occur during the rainy season (Roth 1985). During prolonged dry periods Morro shoulderband snail are inactive and are presumed to enter a state of aestivation (summer dormancy). The species becomes active during rain, as well as periods of heavy fog and dew. Individuals may be particularly active during the evening, night, early morning hours when they emerge to feed and disperse to new habitats. The feeding habits of the Morro shoulderband snail are not well studied, however the mouth parts of the species are consistent with other snail species that feed on decaying matter and micorrhizae. Hill (1974) indicated that, although feeding on decaying plant matter occurs, the primary food source for Morro shoulderband snail was probably fungal mycelia that grow on decaying plant matter. Moisture is reported as important in facilitating the feeding of Morro shoulderband snail (Service 2003). Walgren (2003) reported that the Morro shoulderband snail will eat live vegetable matter when presented in the lab, however, the species is not considered to be a garden pest (Service 2006).

At the time of listing, it was believed that the Morro shoulderband snail was restricted to sandy soils of coastal dune and coastal scrub plant communities (Roth 1973) with Roth (1985) speculating that perhaps as few as several hundred individuals of Morro shoulderband snail remained throughout the geographic range of the species. A very limited survey for the species conducted in 1992 did not identify any live snails (Service 1994); however, subsequent surveys associated largely with proposed development projects conducted since this time reveal the current population is more robust than previous survey results indicated. We also now know the species occupies a diversity of both native and non-native habitats, as well as fairly disturbed habitats if underlain by Baywood fine sand soils (Service files, SWCA 2013), throughout its geographic range.

Occurrence in the Project Area

Three live MSS and two vacant MSS shells were found on the site during the survey performed in Spring 2014, confirming presence on the site (Appendix A, Figure 4). All of the live MSS were found in the north-central part of the lot. The first (measuring 14.7 mm) was in a grassfilled depression in the sand located one to two feet away from, and outside of, the silt fence barrier. The second live specimen (11.9 mm) was within a few inches of the northern-most corner of the foundation, beneath moisture barrier material protruding from the sand along the foundation. The third live MSS (19.5 mm) was found within ten feet of the second snail, beneath a coyote brush shrub growing in the area between the construction fence and silt fence barrier. The first of the vacant shells was found near the northern corner of the parcel in a grass-filled depression in the sand located within a foot of the base of the wooden fence. The shell was in "fresh" condition (based on the aging criteria specified in Roth 1985). The second vacant MSS shell was also in relatively fresh condition and would likely have been dead for less than one year. The second shell was found in grasses along the base of the silt fence barrier on the west-central part of the parcel. In addition to MSS, one introduced terrestrial snail species, the European brown garden snail (*Helix aspersa*), was encountered on the site during the survey. Live European brown garden snails and their vacant shells were relatively common on the parcel along fences and beneath debris.

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Section 4--Biological Impacts and Take Assessment

Direct and Indirect Biological Impacts

Construction an, maintenance of a single-family residence would result in temporary and permanent impacts to up to 20,038 square feet (0.46 acre) of habitat considered to be of limited value to the Morro shoulderband snail (see Section 2.2). Because the species was observed within the western building foundation area in 2014 (Tenera 2014), take associated with the covered activities is considered unavoidable.

Anticipated Take of Morro Shoulderband Snail

Take of Morro shoulderband snail anticipated to result from implementation of those actions necessary to implement the proposed project (see Section 2.2) is negligible in terms of the species' overall survival and recovery. Information about species presence in the recent past indicates that the number of individuals subject to incidental take would be low. Take would be predominantly in the form of capture and moving of individuals out of harm's way; species detection will be aided by the relative lack of habitat existing on the parcel. The subject parcel is not located within a conservation planning area (i.e., *de facto* recovery unit) considered important to species recovery (Service 1998).

Effects on Critical Habitat

The Lewis-Barnes parcel is not located within critical habitat designated for Morro shoulderband snail on February 7, 2001 (66 FR 9233). For this reason, project implementation will not result in any adverse effects to critical habitat or impede recovery of the species.

Cumulative Impacts

Section 10 of the Act analyzes cumulative impacts as those incremental impacts of the action on the environment added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or entity undertakes the action. The geographic area for analysis should be defined by where direct or indirect impacts of the covered activities could occur. Cumulative impacts under section 10 of the Act can result from individually minor but collectively significant actions that take place over a period of time.

The effects of project implementation on the persistence of the Morro shoulderband snail are considered to be very low owing to the relatively small size of the project area and the isolated and degraded nature of the habitat. Construction, maintenance, and occupation of a new single-family residence will result in minor cumulative effects to the Morro shoulderband snail. Even though habitat on the entire 20,038 square-foot parcel could be permanently lost, this is not expected to negatively affect the long-term, range-wide survival of the species due to its occurrence in suitable habitat at nearby locations, as well as elsewhere throughout its geographic range. Take of individual Morro shoulderband snails will be minimized during construction activities and mitigated by contribution of $4,500 as an in-lieu fee into an Impact-Directed Environmental Account held by the National Fish and Wildlife Foundation. A copy of the Service's agreement with the Foundation can be found as Appendix C. This fee will be used to

effect recovery actions for Morro shoulderband snail that have been identified in the *Recovery Plan for the Morro Shoulderband Snail and Four Plants from Western San Luis Obispo County, California* (Service 1998).

Morro shoulderband snails have been observed inhabiting landscaping and other ruderal habitat in residential yards; therefore, due to the parcel's location in an existing neighborhood, it is anticipated that individuals of the species will recolonize portions of the project site post-development.

Anticipated Effects of the Taking

The take of Morro shoulderband snail that is anticipated to result from implementation of those actions necessary to implement the proposed project is considered to be insignificant in terms of the species' overall survival. The actual number of animals subject to incidental take is expected to be low (and predominantly in the form of capture), little or no native habitat for the species will be impacted, and the project site is located in an area that is not considered important to the recovery of species. For these reasons, the effects of the taking of Morro shoulderband snail associated with project implementation on the subject parcel are negligible.

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Section 5--Conservation Program

5.1 Biological Goals and Objectives

Section 10(a)(2)(A) of the Act requires that an HCP specify the measures that the permittee(s) will take to minimize and mitigate to the maximum extent practicable the impacts of the taking of any federally listed animal species as a result of activities addressed by the plan.

As part of the "Five Point" Policy adopted by the Services in 2000, HCPs must establish biological goals and objectives. The purpose of the biological goals is to ensure that the operating conservation program in the HCP is consistent with the conservation and recovery goals established for the species. The goals also provide to the applicant(s) with an understanding of why these actions are necessary. Development of the these goals are based on our knowledge of the species' biology, threats to the species, the likely effects of the Covered Activities, and the scope of the HCP.

Take avoidance is not feasible on the Lewis-Barnes parcel due to the parcel size and the level of permanent disturbance that exists. Even without the existing disturbance, it is unlikely that other construction configurations could avoid all take of Morro shoulderband snail. There is no project design that would make the conservation of any onsite areas meaningful to recovery of the Morro shoulderband snail. The development of the following goals takes this into consideration:

Goal 1: Minimize take, in the form of injury or mortality, of Morro shoulderband snail

Objective 1.1: Conduct pre-activity and construction surveys for Morro shoulderband snail

A Service-approved biologist will be retained to conduct pre-activity surveys to identify the location of any individuals that may be present prior to the commencement of any activities that could result in take of the species. The objective of pre-construction and construction activity surveys is to locate as many Morro shoulderband snails as possible so that they can be captured and moved out of harm's way.

Before continuing construction, the Service-approved biologist will be present to inspect the installed construction fencing, demolition of existing structures, and continuing grading and excavation activities (e.g., clearing of vegetation and stripping of the surface soil layer) to monitor for the presence of Morro shoulderband snail. Live Morro shoulderband snails in any life stage that are encountered during these monitoring events will be captured and moved to a Service-approved site by the Service-approved biologist. This biologist will have the authority to order any reasonable measure necessary to avoid injury or mortality of Morro shoulderband snail and stop any work or activity that is not in compliance with the conditions set forth in the ITP. The Service field office in Ventura will be notified of any "stop work" order, and this order will remain in effect until the issue has been resolved. Upon completion of site preparation and grading activities, the biologist will periodically visit the project site throughout the construction period. During periods of rain or heavy fog/dew, the biologist will

conduct pre-activity surveys to ensure no Morro shoulderband snails have migrated into the work area. No construction work will be initiated until the biologist determines that the work area is clear of Morro shoulderband snails.

This condition will be incorporated into the existing construction permit, PMT2009-01239, on file in the County of San Luis Obispo Planning Department.

Objective 1.2: Capture and Moving of Morro Shoulderband Snail

All live Morro shoulderband snails in any life stage that are found during the pre-construction surveys or construction monitoring will be captured and moved to a Service-approved receptor site by the Service-approved biologist.

Objective 1.3: Conduct pre-construction Environmental Awareness training

The Service-approved biologist will conduct pre-activity training session(s) for all personnel involved in site disturbing activities. The intent of this session is to inform construction crews, field supervisors, and equipment operators about the status and presence of the species, grading and construction-activity restrictions, and the requirement to implement all minimization measures specified in the HCP and ITP.

Goal 2: To mitigate unavoidable take of Morro shoulderband snail by effecting recovery actions as identified in the *Recovery Plan for the Morro Shoulderband Snail and Four Plants from Western San Luis Obispo County, California.*

Objective 2.1: Unavoidable take of the Morro shoulderband snail will be mitigated through the funding of recovery task actions on conserved lands within the known range of the species.

The primary objective of the mitigation is to facilitate the collection of data to address some of the remaining recovery task needed to consider the down- and potential delisting of the Morro shoulderband snail. Data resulting from the research will also be useful in the development of habitat management strategies that will be necessary for the eventual delisting of the species. The funding will mitigate the effects of the taking of Morro shoulderband snail by contributing to one or more of the following: (1) population surveys on conserved lands within the range of the Morro shoulderband snail, (2) compilation and analysis of collected data, and/or (3) preparation of a report that presents study results and Morro shoulderband snail population estimates. Section 5.4 to follow provides additional detail.

5.2 Avoidance, Minimization, and Mitigation Measures

Avoidance Measures

As previously discussed Section 5.1, it is not feasible for use of this parcel to avoid all take of Morro shoulderband snail. Conservation of a portion of the subject parcel, considering both the small size of the area to be conserved and its location in a predominantly developed neighborhood, would not contribute substantially to species recovery.

Minimization Measures

Pre-activity Surveys

The County of San Luis Obispo will include, as a condition of the existing construction permit for the Lewis-Barnes project, a requirement that the Lewis-Barnes or their legal successor(s) in ownership retain a Service-approved biologist to conduct pre-activity surveys prior to the initiation of each project phase that could result in take. This measure will minimize take (in the form of injury or mortality) of Morro shoulderband snail. As stated earlier, the objective of these surveys is to locate as many Morro shoulderband snails as possible so that they may be captured and moved out of harm's way. These surveys will include detailed, systematic search of all vegetation and objects onsite that could provide suitable shelter for Morro shoulderband snail; the results shall be presented as part of HCP and ITP reporting requirements.

Capture and Moving of Morro Shoulderband Snails

All live Morro shoulderband snails of any life stage that are found during the pre-activity surveys or construction monitoring will be captured and moved out of harm's way to a pre-determined, Service-approved receptor site by a Service-approved biologist.

Environmental Awareness Training

A Service-approved biologist knowledgeable about the Morro shoulderband snail and the diversity of habitats in which it can occur will conduct pre-activity/construction training session(s) for all personnel who will work on-site during project implementation. The intent of this session is to inform construction crews, field supervisors, equipment operators, etc. about the status and presence of the species, grading and construction-activity restrictions, and the protection and minimization measures specified in the HCP and ITP.

Construction Monitoring

Before re-initiating construction activities, a Service-approved biologist will be present to inspect the installed construction fencing and monitor initial grading and excavation activities (*e.g.*, clearing of vegetation and stripping of the surface soil layer). Again, all live Morro shoulderband snails of any life stage will be captured by the approved biologist and moved out of harm's way. This biologist shall have the authority to order any reasonable measure necessary to avoid the take of Morro shoulderband snail and to stop any work or activity not in compliance with the conditions set forth in the incidental take permit. The biologist will notify the Ventura Fish and Wildlife Office of any "stop work" order issued, and this order will remain in effect until the issue has been resolved. Upon completion of site grading activities, the monitor will periodically visit the project site throughout the construction period to ensure that impacts to the project site are consistent with the project description contained in this HCP and the ITP. During periods of rain or heavy fog/dew, the biologist will conduct pre-activity surveys to ensure no Morro shoulderband snails have migrated into the work area. Until the biologist determines that the work area is clear of Morro shoulderband snails, no work will proceed.

Mitigation Measures

Unavoidable take of the Morro shoulderband snail will be mitigated by payment of an in-lieu fee of $4,500 to fund Morro shoulderband snail recovery task actions on conserved lands within the known range of the species (Table 1). A priority task entails determining the status of populations of the species present on these conserved lands. Currently there are minimal data available for estimating Morro shoulderband snail population levels on these lands. The Recovery Plan for the Morro Shoulderband Snail and Four Plants from Western San Luis Obispo County (Service 1998) specifies that downlisting of the Morro shoulderband snail can be considered when sufficient populations and suitable occupied habitats from all four Conservation Planning Areas (Morro Spit, West Pecho, South Los Osos, and Northeast Los Osos) are secured and protected. The five-year status review for the Morro shoulderband snail (Service 2006) concludes that sufficient habitat blocks have been secured and protected in order to satisfy this criterion for downlisting. This is primarily based upon existing Morro shoulderband snail population information from presence/absence surveys prompted by applications for changes in land use (*e.g.*, residential development) or anecdotal information. Neither of which provide the type of data suitable for population estimates. Activities on conserved lands do not generally trigger Morro shoulderband snail surveys; no systematic surveys have been conducted in recent years. As such, species presence, abundance, and distribution are currently unknown. On those conserved parcels where Morro shoulderband snail presence has been confirmed, little or no information exists regarding population size or long-term viability. To consider downlisting, the Recovery Plan also specifies that Morro shoulderband snail populations must be large enough to minimize the short-term (*i.e.*, next 50 years) risk of extirpation in any of the four Conservation Planning Areas. Additional data suitable for population estimation would greatly improve the Service's ability to assess whether or not sufficiently large populations exist to meet this recovery criterion.

The primary objective of this mitigation strategy is to facilitate the collection of data that will address recovery task needs for downlisting (and future de-listing) of the Morro shoulderband snail. Data collected will also be useful in the development of habitat management strategies necessary to consider delisting of the species. The mitigation funding provided in this HCP is expected to facilitate (1) implementation of population surveys on conserved lands within the range of the Morro shoulderband snail, (2) the compilation and analysis of the data collected, and (3) the preparation of a final report presenting study results and Morro shoulderband snail population estimates. Examples of the conserved parcels on which recovery activities may be undertaken are shown in Table 1 below:

Table 1: Conserved Parcels in the Los Osos Area

Assessor Parcel Number (APN)	Name	Ownership	Size (acres)	Conservation Planning Area	Critical Habitat Unit
APN 038-711-016	BLM	BLM[1]	4.7	Northeast Los Osos	3
APN 038-711-016	Powell I	CDPR[2]	15.6	Northeast Los Osos	3
APN 067-012-011	Powell II	CDPR	50.6	Corridor Area[5]	3[6]
APN 038-721-024	Pismo	CDPR	10.9	--	--
APN 074-022-003	Butte	CDPR	18.9	West Pecho	--
APN 074-022-061	Hotel	CDPR	42.4	West Pecho	1
APN 074-229-010	Sweet Springs I	MCAS[3]	24.0	--	--

APN 074-229-009	Sweet Springs II	MCAS	~8	--	--
APN 038-711-015	Attman	LCSLO[4]	11.2	Northeast Los Osos	3
APN 038-711-004	Garris	LCSLO	~4	Northeast Los Osos	3
APN 074-224-019	Los Osos Oaks	CDPR	~90	A[5]	--

1 Bureau of Land Management
2 California Department of Parks and Recreation, San Luis Obispo Coast
3 Morro Coast Audubon Society
4 Land Conservancy of San Luis Obispo
5 Designated as "Other Habitat Area" in Recovery Plan
6 A portion is within critical habitat

5.3 Monitoring

Monitoring tracks compliance with the terms and conditions of the HCP and ITP. There are three types of monitoring: (1) compliance monitoring tracks the permittee's compliance with the requirements specified in the HCP and ITP; (2) effects monitoring tracks the impacts of the covered activities on the covered species; and (3) effectiveness monitoring tracks the progress of the conservation strategy in meeting the HCP's biological goals and objectives (includes species surveys, reproductive success, etc.). Monitoring provides information for making adaptive management decisions.

Pre-Construction and Construction Monitoring

A Service-approved permitted biologist will be present to inspect the installed exclusionary construction fencing, demolition of existing structures, and continuing grading and excavation activities (e.g., clearing of vegetation and stripping of the surface soil layer) to monitor for the presence of Morro shoulderband snail. All live Morro shoulderband snails of any life stage encountered during these monitoring events will be captured and moved to a Service-approved receptor site by the approved biologist. The biologist will have the authority to order any reasonable measure necessary to avoid the take (in the form of injury or mortality) of Morro shoulderband snail and to stop any work or activity that is not in compliance with the conditions set forth in the HCP and ITP. The biologist will notify the Ventura Fish and Wildlife Office of any "stop work" order; this order will remain in effect until the issue has been resolved. Upon completion of site preparation activities, the biologist will periodically visit the project site throughout the construction period. During periods of rain or heavy fog/dew, the biologist will conduct daily pre-activity surveys to ensure no Morro shoulderband snails have migrated into the work area. No construction will start until the biologist determines that the work area is clear of Morro shoulderband snails.

Access to Project Site

The permittees will allow a representative from the Service access to the project site to monitor compliance with the conditions of the ITP.

5.4 Reporting

Annual reports will be submitted to the Service by December 31 of each year and include (as necessary): (1) a brief summary or list of project activities accomplished during the reporting

year (e.g., inclusive of construction activities and other covered activities); (2) project impacts (e.g., quantification of the area graded.); (3) a description of any take that occurred for each covered species (inclusive of the cause, form, amount, location of take and deposition of dead or injured individuals); (4) a brief description of conservation strategy implemented; (5) results of monitoring results (compliance, effects and effectiveness monitoring) and survey information (if applicable); (6) a description of circumstances that made adaptive management necessary and how it was implemented; (7) a description of any changed or unforeseen circumstances that occurred and how they were addressed; (8) all funding expenditures, balance, and accrual; and (9) a description of any minor or major amendments. It is likely that once construction activities are completed, these reports will be brief in nature and are not anticipated to add significant funding costs. Preparation and submittal of all reports will be the responsibility of the permittee and include supporting information in the form of photocopied field notes compiled and signed by the monitoring biologist.

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Section 6--Plan Implementation

6.1 Changed Circumstances

Section 10 regulations [(69 FR 71723, December 10, 2004 as codified in 50 Code of Federal Regulations (CFR), Sections 17.22(b)(2) and 17.32(b)(2))] require that an HCP specify the procedures to be used for dealing with changed and unforeseen circumstances that may arise during the implementation of the HCP. In addition, the HCP No Surprises Rule [50 CFR 17.22 (b)(5) and 17.32 (b)(5)] describes the obligations of the permittee(s) and the Service. The purpose of the No Surprises Rule is to provide assurance to the non-Federal landowners participating in habitat conservation planning under the Act that no additional land restrictions or financial compensation will be required for species adequately covered by a properly implemented HCP, in light of unforeseen circumstances, without the consent of the permittee(s).

Changed circumstances are defined in 50 CFR 17.3 as changes in circumstances affecting a species or geographic area covered by an HCP that can reasonably be anticipated by plan developers and the Service and for which contingency plans can be prepared (e.g., the new listing of species, a fire, or other natural catastrophic event in areas prone to such event). If additional conservation and mitigation measures are deemed necessary to respond to changed circumstances and these additional measures were already provided for in the plan's operating conservation program (e.g., the conservation management activities or mitigation measures expressly agreed to in the HCP or IA), then the permittee(s) will implement those measures as specified in the plan. However, if additional conservation management and mitigation measures are deemed necessary to respond to changed circumstances and such measures were not provided for in the plan's operating conservation program, the Service will not require these additional measures absent the consent of the permittee(s), provided that the HCP is being "properly implement" (properly implemented means the commitments and the provisions of the HCP and the IA have been or are fully implemented).

The following changed circumstances have been identified for the Lewis-Barnes HCP: presence of a newly listed species and/or a discovery of a listed species previously unknown to occur onsite.

Newly Listed Species

If a species that is not covered by the HCP, but may be affected by activities covered by, the HCP is discovered onsite or listed under the Act during the term of the ITP, the permit will be re-evaluated by the Service. Based upon the results of this review, covered activities could be modified to ensure that they are not likely to jeopardize or result in take or adverse impacts to this species. The permittee(s) will implement those modifications to covered activities identified by the Service as necessary to avoid the likelihood of jeopardy to or take of the newly listed species and/or adverse modification to designated critical habitat. The permittees, or their legal successor(s) in ownership, will continue to implement such modifications until such time as the permittee(s) has done one of two things: 1) applied for, and received Service approval of, an amendment to the ITP to cover the newly listed species or 2) the Service notifies the permittee(s) in writing that the modifications to the HCP covered activities are no longer required to avoid the

likelihood of jeopardy of the newly listed species or adverse modification of newly designated critical habitat.

Newly Discovered Listed Species Previously Unknown

In the event that an already listed species is discovered at the project site during the permit term, the permittees will cease project activities that are likely to result in take of this species and work with the Service to develop a permit amendment to address said species. For this particular project, it is extremely unlikely that any other listed species will be identified onsite due to the its relatively small size, limited area of native habitat within the parcel, and the limited project scope.

6.2 Unforeseen Circumstances

Unforeseen circumstances are defined in 50 CFR 17.3 as changes in circumstances that affect a species or geographic area covered by the HCP that could not reasonably be anticipated by plan developers and the Service at the time of the HCP's negotiation and development and that result in a substantial and adverse change in status of the covered species. The purpose of the No Surprises Rule is to provide assurances to non-Federal landowners participating in habitat conservation planning under the Act that no additional land restrictions or financial compensation will be required for species adequately covered by a properly implemented HCP, in light of unforeseen circumstances, without the consent of the permittee(s).

In case of an unforeseen event, the permittees will notify their Service staff contact as soon as possible. To determine if the event constitutes an unforeseen circumstance, the Service will consider, but not be limited by, the following factors: size of the current range of the affected species, percentage of range affected by the HCP, percentage of range conserved by the HCP, ecological significance of that portion of the range affected by the HCP, level of knowledge about the affected species and the degree of specificity of the species' conservation program under the HCP, and whether failure to adopt additional conservation measures would appreciably reduce the likelihood of survival and recovery of the affected species in the wild.

If the Service determines that additional conservation and mitigation measures are necessary to respond to an unforeseen circumstance and the HCP is being properly implemented, additional measures required of the permittees must be as close as possible to those in the HCP and limited to modifications within conserved habitat area(s) or adjustments to lands already set-aside in the HCP's operating conservation program. Additional conservation and mitigation measures would involve the commitment of additional land or financial compensation or restrictions on the use of land or other natural resources otherwise available for development or use under original terms of the HCP only with the consent of the permittees.

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6.3 Amendments

Minor Amendments

Minor amendments are changes that do not affect the scope of the HCP's effects analysis and conservation strategy, change the amount of take, add new species, or change significantly the boundaries of the HCP. Examples of minor amendments include correction of spelling errors, minor corrections in boundary descriptions, or minimal changes to covered activities such that they would not affect the take analysis contained in the supporting documentation. The minor amendment process is conducted through an exchange of letters between the permit holder and the Service's field office in Ventura and not subject to additional public review.

Major Amendments

Major amendments to the HCP and ITP are changes that do affect the scope of the HCP and conservation strategy, increase the amount or form of take, add new species, or change the boundaries of the HCP in a substantial fashion. Major amendments often require revisions to the Service's decision documents and typically require additional public review.

6.4 Permit Suspension or Revocation

The Service may suspend or revoke their respective permits if the permittees, or their legal successor(s) in ownership, fail to implement the HCP in accordance with the terms and conditions of the ITP or if suspension or revocation is otherwise required by law. Suspension or revocation of the Section 10(a)(1)(B) permit, in whole or in part, by the Service shall be in accordance with 50 CFR 13.27-29, 17.32 (b)(8).

6.5 Permit Renewal

Upon expiration, the Section 10(a)(1)(B) permit may be renewed without the issuance of a new permit, provided that the permit is renewable and that biological circumstances and other pertinent factors affecting covered species are not significantly different than those described in the original HCP. The permittees, or their legal successor(s) in ownership, will submit the following, in writing, to the Service: (1) a request to renew the permit, inclusive of the original permit number; (2) certification that all statements and information provided in the original HCP and permit application, together with any approved HCP amendments, are still true and correct; (3) a detailed list of requested changes; (4) a description of any take that has occurred under the existing permit; and (5) a description of any portions of the project still to be completed, if applicable, and which activities under the original permit the renewal is intended to cover.

If the Service concurs with the information provided in the request, it will renew the permit consistent with permit renewal procedures required by Federal regulation found in 50 CFR 13.22. If the permittees, or their legal successor(s) in ownership, file a renewal request <u>and</u> the request is received by the issuing Service office at least 30 days prior to permit expiration, the permit will remain valid while the renewal is being processed, provided the existing permit

meets renewal criteria. The permittees, or their legal successor(s) in ownership, may not engage in take above that amount and form authorized by the original ITP. If the renewal request is not submitted within 30 days prior to permit expiration, the permit will become invalid upon expiration. The permittees, or their legal successor(s) in ownership, must have complied with all annual reporting requirements to qualify for a permit renewal.

The need for permit renewal could result from a variety of circumstances that could include a reduction in prevailing economic climate, delays in approval of project design or inspections, timing of County and Coastal permits, or construction delays.

6.6 Permit Transfer

If there is a transfer of ownership during the permit term, the following will be submitted to the Service by the new owner(s): a new permit application and permit fee, and written assurances by the new owner(s) that he/they will provide sufficient funding for the HCP and implement all of the ITP conditions inclusive of any outstanding minimization and mitigation measures. Permit transfer is predicated on this commitment unless otherwise specified in writing, and agreed to in advance, by the Service.

The most likely scenario that would require transfer of the permit would be if, after obtaining the ITP, permittees sell or transfer the parcel to another party.

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Section 7--Funding

7.1 HCP Implementation Costs

Estimated costs to implement the Lewis-Barnes HCP are provided below.

Table 2: HCP Funding Costs

Item/Activity	Unit Cost	One-Time Cost	Re-occurring Costs	Total
Mitigation Measure Payment of In-Lieu Fee **Subtotal**	$4,500	$4,500	n/a	$4,500 **$4,500**
Minimization Measures				
Pre-construction Survey	$700	$700		$700
Worker Awareness Training	$200		up to 2 events	$400
Monitoring	$500	$500	up to 3 events	$1,500
Capture and Moving of Morro Shoulderband Snails	$200	$200	up to 3 events	$600
Subtotal				**$3,200**
Changed Circumstances	$500	$500		$500
Subtotal				**$500**
Reporting				
Post-Construction Monitoring Reports	$150		4 reports	$600
Annual Reports			9 reports	**
Final Report				**
Subtotal				**$600**
TOTAL ESTIMATED COST				**$8,800**

** To be provided by permittees in accordance with Section 5.4

7.2 Funding Source

Joaquin B. Lewis and Gwenda E. Barnes, as the permittees, will be responsible for the full cost of implementing the minimization and mitigation measures as described in section 5.2, those changed circumstances described in section 6.1, and provided in Table 2. They understand that failure to provide adequate funding and/or failure to implement the terms of this HCP in full could result in temporary permit suspension or permit revocation. They will provide a copy of the receipt for payment of the in-lieu fee to the Service's Ventura Field Office and County of San Luis Obispo prior to recommencing use and reliance on the MUP/CDP or any other activity that could result in take of Morro shoulderband snail.

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Section 8--Alternatives

8.1 Summary

Section 10(a)(2)(A)(iii) of the Act and 50 CFR 17.22(b)(1)(iii) and 17.32(b)(1)(iii) require that alternatives to the species take be considered. The reasons why identified alternatives are not implemented will be provided.

Two alternatives to the proposed project are considered in this HCP: the No Action and Project Redesign. The effects of the proposed action (the preferred alternative) have been discussed previously; a discussion of these two alternatives follows below.

8.2 No Action Alternative

Under this alternative, no ITP for the construction and maintenance of the Lewis-Barnes single-family residence would be issued. The single-family residence would not be built and a contribution of $4,500 in in-lieu fees would not be made to effect recovery actions for Morro shoulderband snail. Since the property is privately owned, there are ongoing economic considerations associated with continued ownership of a property without its intended use (e.g., payment of property taxes). The sale of the property for purposes other than the identified activity is not economically feasible. Because of economic considerations and because the proposed action results in a net benefit for the covered species, Morro shoulderband snail, the No Action Alternative has been rejected.

8.3 Project Redesign Alternative

This alternative would involve design of a project that would reduce or avoid altogether take of Morro shoulderband snail. This alternative was not selected due to the small parcel size and uniformity of habitat quality (*i.e.*, extremely degraded) onsite. A reduction or redesign of the project footprint would not meet the applicants' needs and would not significantly reduce impacts to Morro shoulderband snail such that there would be a greater benefit to the species. In addition, the building foundation and septic system for the single-family residence has been constructed consistent with those conditions set forth in Construction Permit PMT2009-01239. Therefore, it is economically unfeasible to change the scope of the Lewis-Barnes project.. For these reasons, the project redesign alternative is also rejected.

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Section 9—REFERENCES

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Appendix A
Figures

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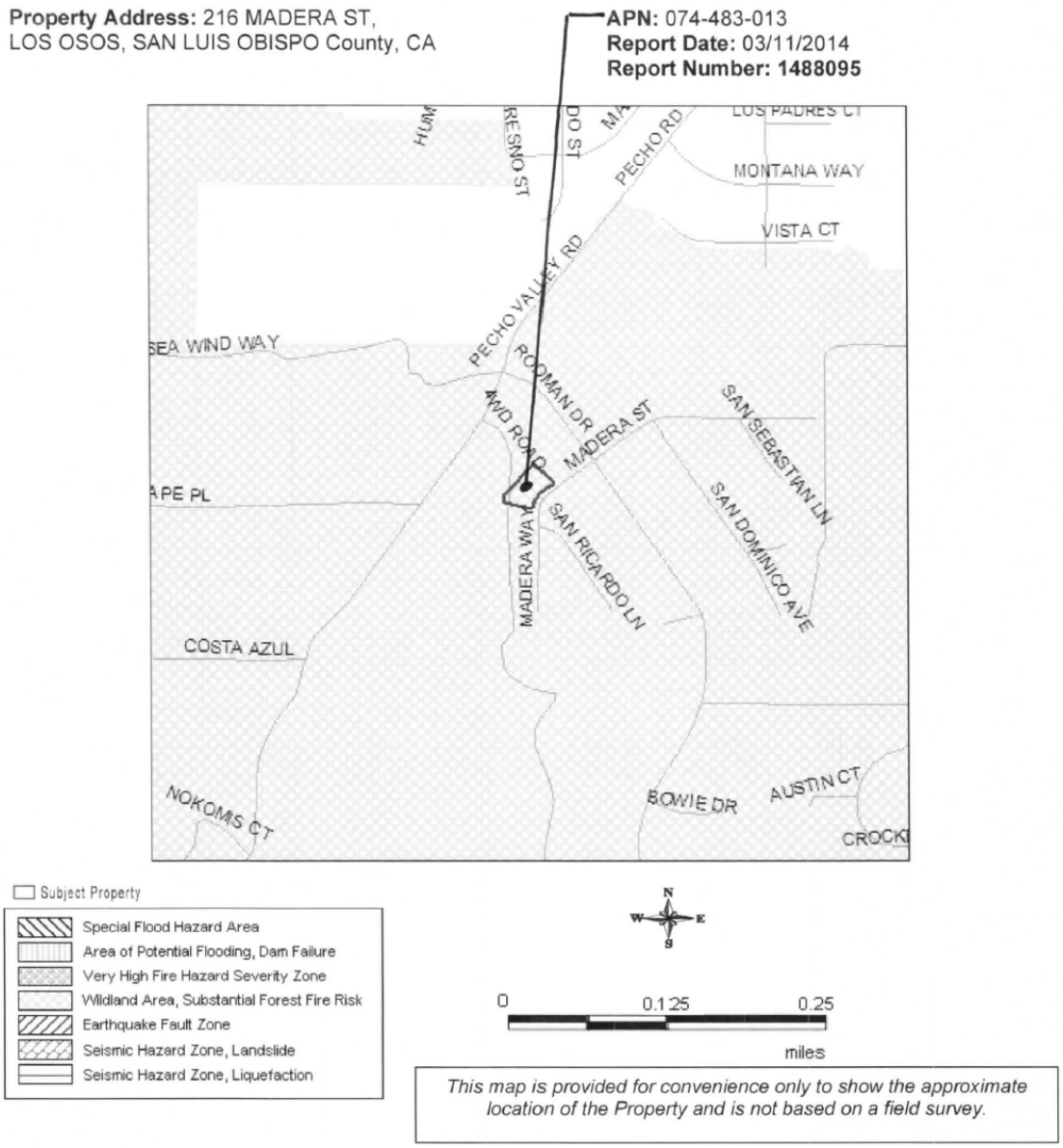

This INDUSTRY STANDARD REPORT contains the Natural Hazard Disclosure Report, the Tax Report and the Enviro Report.

Figure 1--Project Vicinity

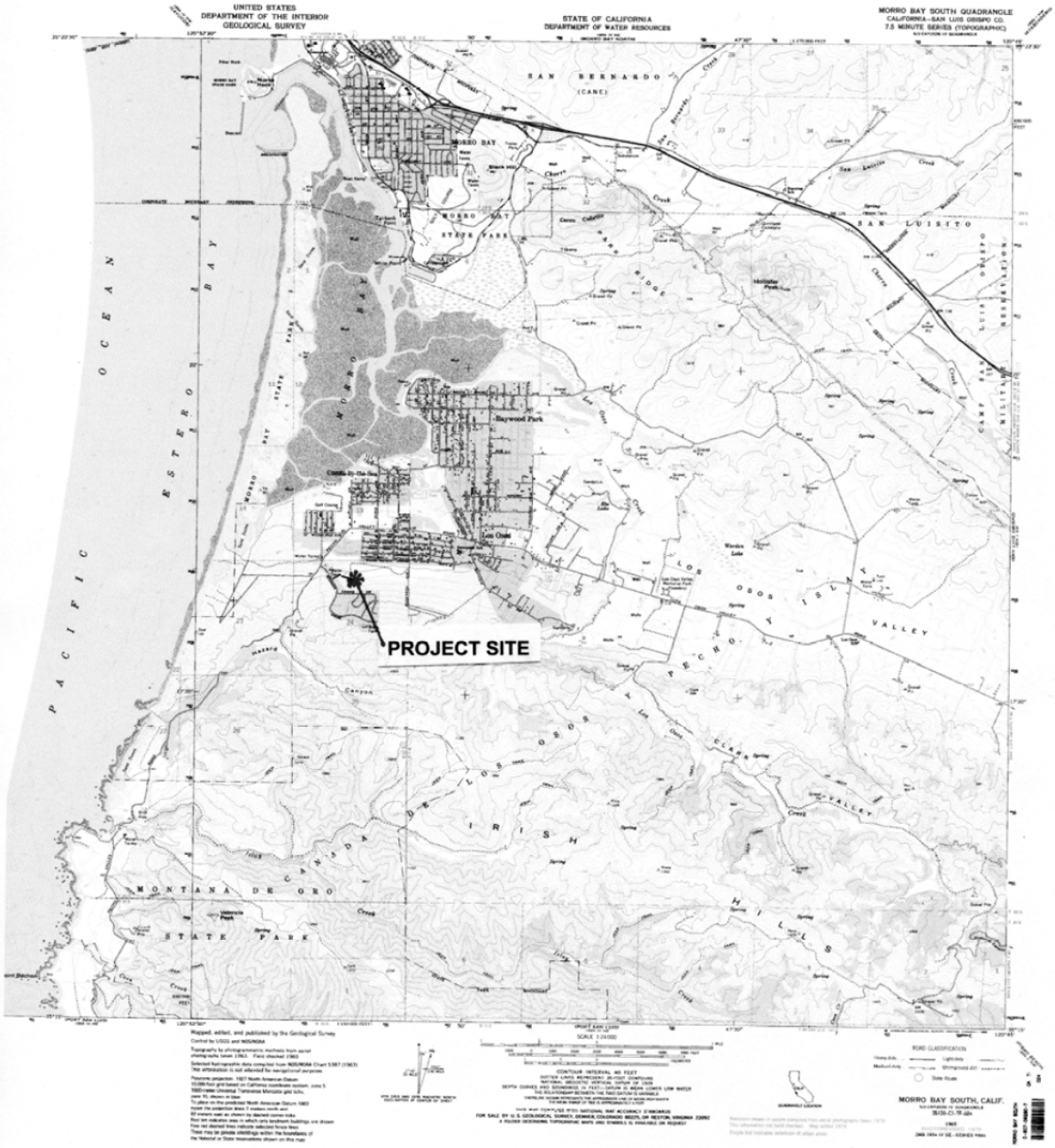

FIGURE 2 – PROJECT SITE ON USGS MORROBAY 7.5 QUADRANGLE

Property Address: 216 MADERA ST,
LOS OSOS, SAN LUIS OBISPO COUNTY, CA
("Property")

APN: 074-483-013
Report Date: 03/11/2014
Report Number: 1488095

AERIAL PHOTO COVER PAGE

This map is provided for convenience only to show the approximate location of the Property and is not based on a field survey.

Figure 3--Aerial View of Assessor Parcel

Yellow Dots--Morro Shoulderband Snail Shells, Qty.-2
Green Dots--Live Morro Shoulderband Snails, Qty.-3

Figure 4--Location of Morro Shoulderband Snail within Permit Area

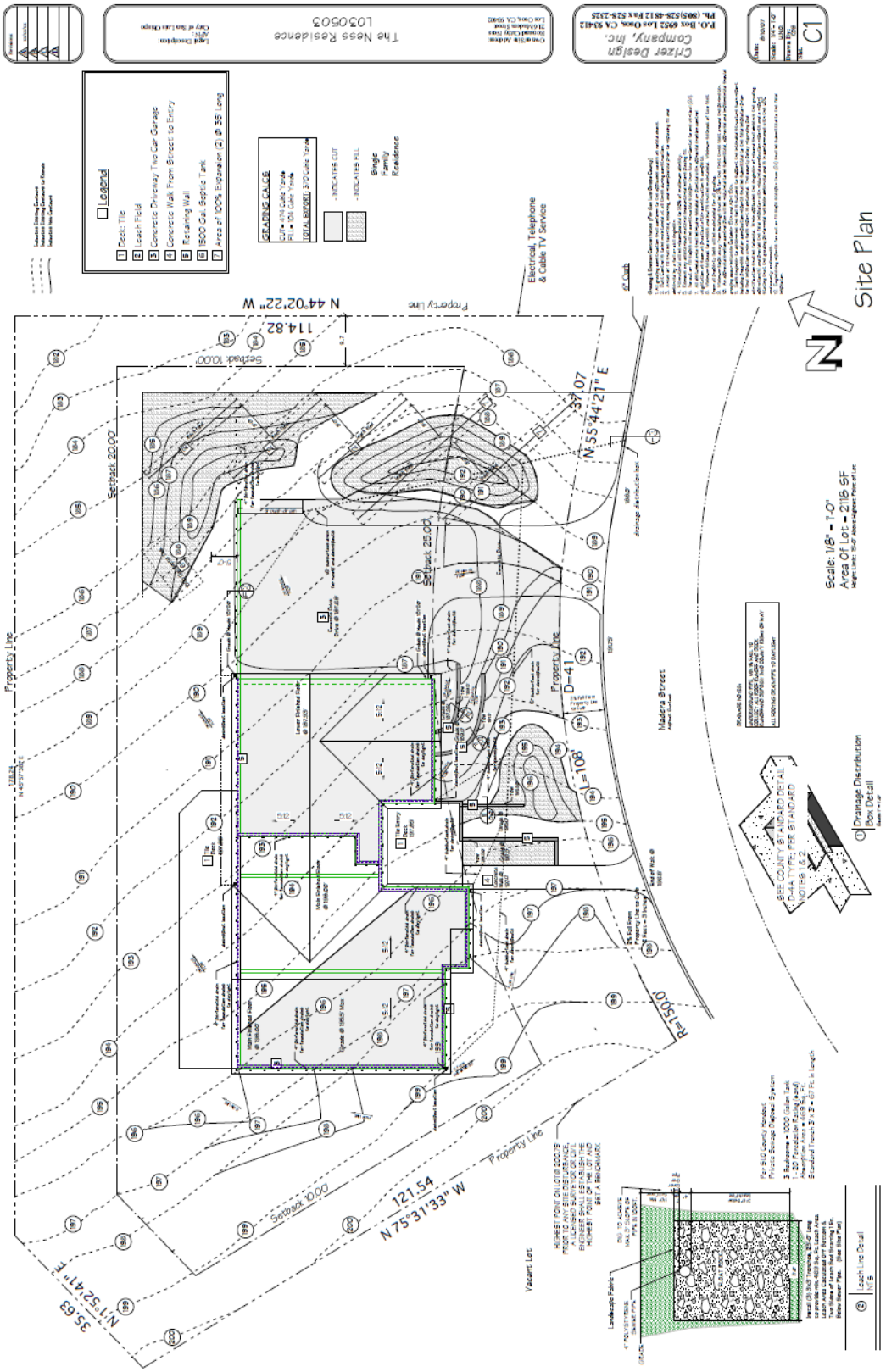

Figure 5--Schematic of Project Design

Appendix B
Morro Shoulderband Snail Survey Report

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TENERA Environmental

April 17, 2014

Ronald and Kathleen Ness
2184 Nola Drive
San Jose, CA 95125

Subject: Re-survey of 216 Madera Street for the presence/absence of the Morro shoulderband snail and habitat update

Dear Mr. and Mrs. Ness:

Tenera Environmental has recently conducted a re-survey of your lot at 216 Madera Street (APN 074-483-013) in Los Osos, California for the federally endangered Morro shoulderband snail (*Helminthoglypta walkeriana*). A full protocol survey for the Morro shoulderband snail (MSS) was conducted previously on the parcel in 2004-2005 (Tenera 2005). A single live MSS was found during the survey along the western part of the southern property boundary, establishing the presence of MSS on the lot. The US Fish and Wildlife Service (Service) initially issued a non-concurrence determination for the project, however, after a take avoidance strategy was developed, a no-take concurrence letter was eventually issued for the residential development project on the lot.

Construction was initiated on the property following the results (one vacant shell) of a pre-construction survey conducted on 26 July 2010. Grubbing and grading of the development footprint, installation of the septic system, and construction of the foundation was completed in 2010, however, the remaining site improvements, including construction of the residence, have not yet been completed. Since it had been more than two years since the concurrence determination was issued, an additional two surveys were required by the Service to provide an update on site conditions prior to resumption of construction work. This letter report presents the results of the supplemental survey effort conducted during 2014 and provides the basis for a new no-take concurrence determination by the Service. These survey results are intended to provide you, the Service, and the County of San Luis Obispo (County) with information about current site conditions and the presence/absence of the MSS.

Site Location

The proposed project site is located in western San Luis Obispo County, California, in the southwestern region of the unincorporated town of Los Osos (**Figure 1**). The property is in Township 30S, Range 10E, Section 24 of the Morro Bay South, Calif. quadrangle (USGS 7.5 minute). The property (APN 074-483-013) is located at 216 Madera Street (Lot 13) within the Cabrillo Estates housing development. Madera Street

TENERA Environmental 141 Suburban Rd., Suite A1, San Luis Obispo, CA 93401
TEL 805.541.0310 FAX 805.541.0421 *www.tenera.com*

is situated approximately 0.1 mile up Rodman Drive from Pecho Valley Road. The site is accessed by turning left off Pecho Valley Road onto Rodman Drive and then taking the first right onto Madera Street. The property is located approximately 250 feet up Madera Street on the right side of the road (**Figure 2**).

The project site is 21,189 square feet (0.49-acre) in size and irregularly shaped, with approximately 145 feet of frontage along Madera Drive. The site is bordered on three sides and to the southeast across Madera Drive by developed residential lots (**Figure 3**). Land along the southern property boundary is currently vacant. The proposed project site is located less than 300 feet (0.06 mile) from Pecho Road, which delineates the eastern border of the area designated as Critical Habitat Unit 1 (Morro Spit and West Pecho) for the MSS (USFWS 2001).

Existing Conditions

The parcel is located on the moderately sloping, sandy foothills that overlook the community of Los Osos and the Morro Bay Estuary. The lot slopes upward to the south from an elevation of approximately 182 feet to around 200 feet at the southern property boundary. Soils on the site consist of well-drained sandy loam described on the County soils survey as Baywood fine sand (9 to 15 percent slopes). The lot has been grubbed and graded and the foundation for the future residence has been constructed on the south-central part of the lot. A chain link fence is present along the eastern and southern parcel boundaries and a six foot tall wooden fence is present along the northern and western boundaries. The development envelope is surrounded along the north, west, and south by orange construction fencing. A three-foot tall silt fence, buried along its base in the sand, is present from two to as much as ten feet outboard of the construction fencing.

The plant community on the site is characteristic of disturbed sites and has recently been mowed for compliance with fire/weed abatement requests from Cal Fire. Vegetation at the time of the survey was relatively sparse with the most abundant plants consisting of non-native veldt grass (*Ehrharta calycina*) and a mix of both native and non-native herbs. These included croton (*Croton californicus*), telegraph weed (*Heterotheca grandiflora*), Bermuda buttercup (*Oxalis pes-caprae*), mustard (*Brassica* spp.), and an escaped mat-forming ornamental (*Myoporum parvifolium*). Other less abundant species noted included native Heermann's bird's foot trefoil (*Lotus heermannii var. orbicularis*), deerweed (*Lotus scoparius*), and non-native narrow-leaved iceplant (*Conicosia pugioniformis*).

Approximately 16 coyote brush (*Baccharis pilularis*) shrubs remain on the site as well as a few new coyote brush sprouts. A single bush lupine shrub (and seedling) was also noted on the site. The chain link fence along the southern property line crosses through a small, isolated stand of coast live oaks (*Quercus agrifolia).*

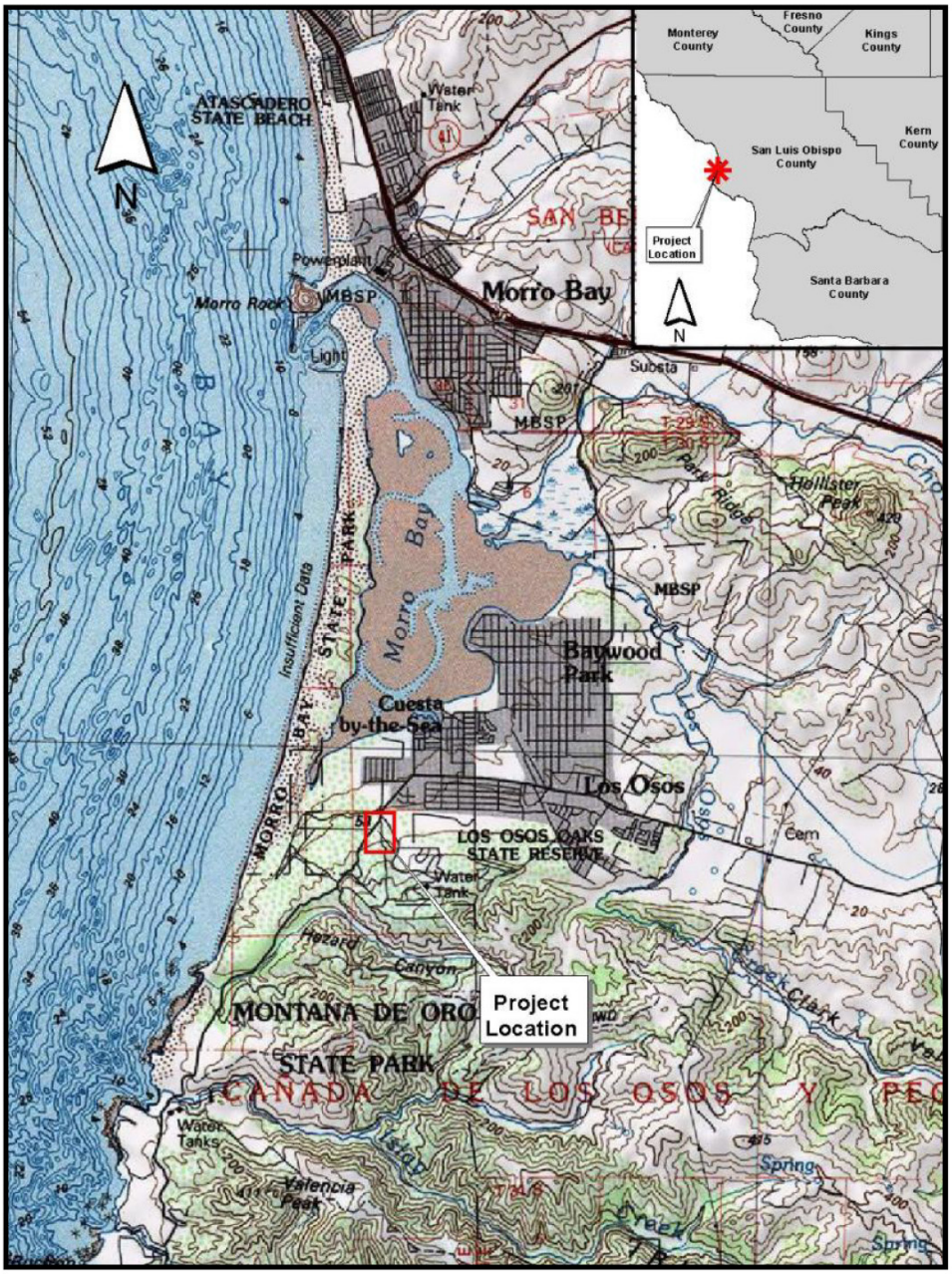

Figure 1. Regional view of project location.

Survey Methods

The supplemental MSS survey was conducted in accordance with the guidelines prescribed by the Service for protocol-level surveys in *Survey Guidelines for the Morro Shoulderband Snail* (*Helminthoglypta walkeriana*) (USFWS 2003). Surveys consist of a thorough pedestrian reconnaissance of the parcel with visual searches of vegetation and objects that might provide suitable refuge for MSS. Objects that were not embedded in the soil were carefully turned to inspect the area beneath; turned objects were subsequently returned to their original position/orientation. Surveys are conducted during or immediately following rain events and at least one week apart. Live snails, empty shells, and shell fragments found during surveys are positively identified and noted on the survey data sheet (Attachment A). Representative photographs of the site are presented at the end of this report.

Rainfall totals reported for the Los Osos area during the 24 hours preceding each survey are compiled from information reported on Accuweather.com. Measurements of air temperature and wind speed are collected at the beginning of each survey using a Skymate SM-18 hand-held wind meter.

Survey Results

The supplemental MSS survey was conducted by TENERA biologists Dan Dugan (Permit #TE 067992-3) and Barbie Dugan (Permit #TE 067990-2), who are federally authorized to conduct surveys for the MSS. The initial survey was conducted during the morning hours on 26 March 2014, between the hours of 0915 and 1115. Conditions during the survey were overcast but clearing to partly cloudy with a 5-10 mph wind from the northwest. The air temperature was 56° F (13° C). The survey was conducted following light overnight/early morning rainfall totaling 0.08 inches of rain. Survey results are summarized in Table 1.

A total of three live MSS and two vacant MSS shells were found on the site during the initial survey, confirming presence on the site (**Figure 4**). All of the live MSS were found in the north-central part of the lot. The first (measuring 14.7 mm) was in a grass-filled depression in the sand located one to two feet away from, and outside of, the silt fence barrier. The second live specimen (11.9 mm) was within a few inches of the northern-most corner of the foundation, beneath moisture barrier material protruding from the sand along the foundation. The third live MSS (19.5 mm) was found within ten feet of the second snail, beneath a coyote brush shrub growing in the area between the construction fence and silt fence barrier.

The first of the vacant shells was found near the northern corner of the parcel in a grass-filled depression in the sand located within a foot of the base of the wooden fence. The shell was in "fresh" condition (based on the aging criteria specified in Roth 1985)

and still had some tissue remaining near the aperture, indicating that the MSS had died very recently. The second vacant MSS shell was also in relatively fresh condition and would likely have been dead for less than one year. The second shell was found in grasses along the base of the silt fence barrier on the west-central part of the parcel. In addition to MSS, one introduced terrestrial snail species, the European brown garden snail (*Helix aspersa*), was encountered on the site during the survey. Live European brown garden snails and their vacant shells were relatively common on the parcel along fences and beneath debris.

Table 1. Summary of survey effort, weather, and results (Search Area = 0.49 acre [0.20 hectare]).

Survey Date	Survey Time and Effort	Weather During and Prior to Survey	Temperature	Results
Survey 1 03/26/14	**Time:** 0915 to 1115 **Effort:** 20 person hours/hectare	**During:** Partly cloudy then clearing; wind 5-10 mph **Prior:** 0.01 in. rain during PM hours on 03/25/14 and 0.07 in. rain AM hours on 03/26/14.	56° F	3 live MSS 2 vacant MSS shells *H. aspersa*: present

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Discussion

The project site supports a plant community that is, and has been, significantly disturbed for years (including prior to the original protocol survey in 2004-2005). Approximately 75 percent of the central part of the lot was cleared when construction of the foundation was initiated in 2010 and vegetation in the cleared area remains sparse. Recent fire abatement mowing has reduced the height of grasses and small shrubs within the buffer area outside of the silt fence, however, the larger shrubs were not impacted by the work. These shrubs, along with the native and non-native grasses and herbs in the area, offer potentially suitable habitat for MSS. Grasses and vegetation growing along the wooden fence along the north and west property boundaries, particularly the low growing *Myoporum parvifolium* at the western property corner, would seem to offer the best sheltering habitat on the site, however, MSS were not found in vegetation along the fence. A stand of coast live oaks and patch of *Carpobrotus* spp. present on Lot 12 along the southwestern property boundary has been consistently occupied by MSS over the past ten years.

Despite the disturbed nature of the site and relatively poor habitat conditions, the results of the first survey establish the presence of MSS on the site and in close proximity to the existing building foundation. Consequently, the resumption of construction activities on the residential structure has a strong potential to result in the "take" of the MSS. Section 9 of the Endangered Species Act (ESA) prohibits any activity that could result in the "take" of listed species such as the MSS.

At this point the best option for moving forward with the project is to obtain an Incidental Take Permit (ITP) from the Service through an approved Habitat Conservation Plan (HCP). For non-federal projects and private development projects that do not require a federal permit, the preparation of a HCP is a necessary step in obtaining an ITP. The ESA requires that permit applicants design, implement, and secure funding for a HCP that minimizes and mitigates harm to the impacted species during the proposed project. An ITP may be obtained through the preparation of an individual HCP or participation in a grouped HCP, such as a community-wide plan. Required components of an HCP include a description of measures that will be undertaken to avoid and minimize the take of a listed species and mitigate for any take that may occur under the ITP. Currently a low-effect HCP template is available from the Service for residential development projects such as yours. The Service biologist presently taking the lead on MSS issues in Los Osos is Ms. Julie Vanderwier. Her contact information is:

Ms. Julie Vanderwier
Ventura Fish and Wildlife Service Office
2493 Portola Road, Suite B
Ventura, CA 93003
Phone: 805.644.1766 Ext. 222

Please feel free to contact me if you have any questions.

Sincerely,

Dan Dugan
Senior Biologist
TENERA Environmental

cc: Ms, Julie Vanderwier, US Fish and Wildlife Service

Literature Cited

Roth, B. 1985. Status Survey of the Banded Dune Snail, (*Helminthoglypta walkeriana*). Prepared for the U. S. Fish and Wildlife Service. Sacramento, California.

Tenera, Tenera Environmental Inc. 2005. Ness Property: Morro Shoulderband Snail (*Helminthoglypta walkeriana*) Protocol Survey Report. Prepared for Ron and Kathleen Ness and the United States Fish and Wildlife Service.

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Attachment A
Survey Data Sheet

MORRO SHOULDER BAND SNAIL FIELD SURVEY FORM

PROJECT: NESS Project DATE: 3/26/14 SURVEY NUMBER: 1

TEMPERATURE: 56°F START TIME: 0915 END TIME: 1115

WEATHER DURING SURVEY: overcast → clearing WIND: 5-10 mph

AMOUNT OF MOST RECENT PRECIPITATION: 0.01 DATE: 3/25/14 PM hours
0.07 3/26/14 AM hours

SURVEYOR(S) D. Dugan SURVEY EFFORT: 20 ph/h
B. Dugan (person-hours/hectare)

SPECIES H. aspersa LIVE ☒ -11 SHELL ☒ -1
LOCATION NW part of lot HABITAT Under silt fence - buffer area

D83 SPECIES H. walkeriana LIVE ☐ SHELL ☒
LOCATION NW part of lot - 35.30706 -120.85624 next to wood fence HABITAT depression with grass debris

SPECIES H. walkeriana (14.7 mm) LIVE ☒ SHELL ☐
LOCATION central part of lot - 35.30691 -120.85635 HABITAT depression with grass debris

SPECIES H. aspersa LIVE ☐ SHELL ☒ + frags (8)
LOCATION North-western fence HABITAT vegetation along fence

SPECIES H. walkeriana LIVE ☐ SHELL ☒
LOCATION west-central - under silt fence HABITAT veldt grass

Notes: H. walkeriana - live - (11.9 mm) - Moisture barrier @ 35.30685; -120.85633 northern corner of foundation
H. aspersa - live - next to western foundation. Under moisture barrier
H. walkeriana - live - (19.5 mm) in Baccharis shrub between cast. fence + silt fence
35.30684; -120.85638
H. aspersa - 5 live + shells + frags - North + west - black plastic and silt fence

TENERA ENVIRONMENTAL Page 1 of 1

Appendix C
In-Lieu Fee Deposit Agreement between the Service and NFWF

DRAFT

NATIONAL FISH and WILDLIFE FOUNDATION

SAN FRANCISCO OFFICE
90 New Montgomery Street Suite 720
San Francisco, CA 94105
P 415-778-0999 F 415-778-0998 nfwf.org

November 5, 2009

Diane K. Noda
Field Supervisor, U. S. Fish and Wildlife Service
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, CA 93003

RE: Letter of Direction for Deposit into National Fish and Wildlife Foundation
Morro Shoulderband Snail In-Lieu Fee Account

Dear Ms. Noda:

The purpose of this letter is to outline the agreement reached between the National Fish and Wildlife Foundation (NFWF) and the U.S. Fish and Wildlife Service (Service) regarding payments (Payments) of funds into an account with NFWF that originate from the Service's Endangered Species Habitat Conservation Planning Program for the federally endangered Morro shoulderband snail (*Helminthoglypta walkeriana*). NFWF hereby agrees to accept the Payments and deposit them into an account at NFWF to be named the "Morro Shoulderband Snail In-Lieu Fee Account" (Account).

Monies deposited into the Account will be disbursed by NFWF at the direction of the Service to fund efforts that would contribute to the recovery of the Morro shoulderband snail. These monies are intended to compensate for unavoidable impacts to the species associated with the issuance of incidental take permits supported by low-effect Habitat Conservation Plans. These efforts would be consistent with recovery tasks as identified in the Recovery Plan for the Morro Shoulderband Snail and Four Plants from Western San Luis Obispo County, California (Service 1998) and may include, but are not necessarily limited to, the development of monitoring strategies, population surveys, and non-native species removal and habitat enhancement. The efforts would be conducted only on lands identified by the Service and with the consent of the land owner/manager (e.g., California State Parks, California Department of Fish and Game). We understand that Julie M. Vanderwier will serve as the Service point of contact for communications regarding the Account (including the specification of projects to be funded) at the address listed above or, alternatively, via telephone (805) 644-1766 extension 222 or e-mail (julie_vanderwier@fws.gov). The Service agrees to advise NFWF in the event this point of contact information changes.

Please arrange to have the Payments delivered to NFWF, Attention Chief Financial Officer, 1133 15th Street, NW, Suite 1100, Washington DC, 20005. All checks should be made payable to the "National Fish and Wildlife Foundation" taxpayer ID # 52 138 4139, and make reference to the "Morro Shoulderband Snail In-Lieu Fee Account." If the Payments are to be

deposited with the Foundation via electronic funds transfer, we request that they be directed to NFWF, c/o Bank of America, 730 15th Street, NW, Washington, DC 20005, ABA Bank Transit Number 026009593, Account Number 2260 0322 6791.

Upon receipt of the Payments, NFWF will deposit the funds into the Account and invest them in accordance with NFWF's prevailing investment policies pending project selection. Any interest earned will be credited back to the principal of the Account, and applicable bank charges will be debited from the Account. We will disburse amounts from the Account in accordance with the terms outlined above, at the direction of the Service.

We shall submit Account activity reports to the Service semi-annually by June 15 and December 15 of each year the Account is in existence. The activity will include all information relative to deposits, disbursements, fees, and investment income during each semi-annual period, with a reconciliation of the remaining unobligated balance in the Account.

As compensation for its fiduciary obligations, NFWF will assess and collect an annual management fee of 2% of the balance of the Account during each fiscal year in which the Account is in existence. We may assess and collect the fee either quarterly (in which event the fee will be calculated as 0.5% per quarter) or annually, in either case based on the Foundation's fiscal year. (Please note that NFWF's current practice is to *accrue* the annual fee quarterly for accounting purposes based on quarter-end account balances, but to actually *draw and collect* the annual fee only once annually.) We may also assess additional fees if requested by the Service to perform functions beyond those outlined in this letter, as determined to be reasonable in consultation with the Service.

We look forward to applying the Payments through the Account for the purposes outlined above. If the foregoing accurately reflects your understanding of the manner in which the Payments should be administered, please sign as indicated below and return a copy of this letter to NFWF, attention: Liz Epstein, Senior Manager, Impact-Directed Environmental Accounts, at 90 New Montgomery Street, Suite 720, San Francisco, CA, 94105 at your convenience. Please feel free to contact Liz (415-243-3102) with any questions or concerns.

Sincerely,

Liz Epstein

for Timothy J. Dicintio
Director, Impact Directed Environmental Accounts
National Fish and Wildlife Foundation

Agreed and Acknowledged:

U.S. Fish and Wildlife Service

Diane K. Noda

By: Diane K. Noda

11/12/09

Date

Title: Field Office Supervisor

cc: Liz Epstein, Senior Manager, Impact Directed Environmental Accounts, NFWF
David Pereksta, Service