SEATAC BIOTA REPORT REQUIREMENTS ROAD MAP

County Project TR060678

Tentative Tract Map TR060678, General Plan Amendment No. 201400001, Conditional Use Permit No. 200500150, Oak Tree Permit No. 200500057, Newhall Ranch Specific Plan Substantial Conformance Review No. 201400004, Environmental Review No. 200500150

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SEATAC BIOTA REPORT REQUIREMENTS

I. Project Description

A. Location: The proposed Project is located in a portion of the Santa Clara River Valley in north unincorporated Los Angeles County, between the City of Santa Clarita and the Los Angeles County/Ventura County jurisdictional boundary line. Homestead South project site located south of the Santa Clara River, west of Potrero Canyon and east of Airport Mesa and Magic Mountain Amusement Park.

B. Size: The entire Homestead South project site occupies approximately 2,535 acres, including the 1,746-acre Homestead South Village tract map site and an additional 789 acres of off-site land primarily within the boundaries of the approved Specific Plan

C. Project:

Section 2.1 The Project (Page 3 of Synopsis[1]) states: The Homestead South tract map (VTTM 60678) proposes development of 3,617 residences (699 single-family and 2,918 multi-family); 66,400 square feet of retail commercial uses; a 9.4-acre elementary school site; a 19.4-acre junior high school site; a 54.6-acre high school site; 12.1 acres of public parks; 11.0 acres of private recreation areas; and 980.5 acres of open space, which includes the 67.4-acre "Grapevine Mesa" spineflower preserve in the northeastern portion of the tract map site. The proposed project also includes: (a) the Long Canyon Road Bridge, (b) trails, (d) bank stabilization, (e) utility corridor (storm drain, water quality basins, sanitary sewer and water, cable, gas, and fiber optics), (f) agricultural wells, (g) riparian mitigation sites, (h) storm drain outlets and (i) off-site transport of materials associated with grading, including haul routes. The entire Homestead South project site occupies approximately 2,535 acres, including the 1,746-acre Homestead South Village tract map site and an additional 789 acres of off-site land primarily within the boundaries of the approved Specific Plan (Figures 1 and 2 of Synopsis). Homestead South includes several proposed off-tract map site improvements required to provide adequate circulation, service, and utilities to the tract map site (External Map Improvements). In addition to the development described above, the proposed Project includes External Map improvements to facilitate development. The External Map Improvements can be grouped into the following categories: (1) roadway improvements, including extension of Magic Mountain Parkway and Long Canyon Road; (2) hydrology-related improvements, including improvements in or near the Santa Clara River corridor (e.g., buried bank stabilization) and various drainage improvements; (3) utility corridor between the existing Valencia WRP and the approved Newhall Ranch WRP; (4) water supply facilities; (5) wastewater-related facilities; (6) Southern California Edison substation and related facilities; and off-site transport of materials associated with grading, including haul routes.

[1] The Synopsis references the Biological Resources Synopsis for the Homestead South Site (Prepared for SEATAC discussion) prepared by Dudek, March 2014 and the BTR references the Draft Biological Technical Report for the Homestead South Site and Associated Off-Site Improvements Areas, Los Angeles County, California prepared by Dudek, March 2014.

Total grading for the Homestead South project includes 35,700,000 cubic yards (cy) of cut (33,333,000 cy of cut within the tract map boundary and 2,367,000 cy outside of tract boundary) and 35,700,000 cy of fill (29,323,000 cy within the tract map boundary, 577,000 cy outside of the tract boundary with 5,800,000 cy to be transported to the Landmark Village tract boundary). Offsite infrastructure improvements grading includes 4,000,000 cy of cut and 4,000,000 cy of fill for the extension of Magic Mountain Parkway; 160,000 cy of cut and 45,000 cy of fill for a Southern California Edison (SCE) substation with an additional 115,000 cy of fill to a SCE substation disposal site; and 7,000 cy of cut and 285,000 cy of fill for the utility corridor.

Map available at DRP website: http://planning.lacounty.gov/assets/upl/case/tr060678_tentative-map-20131030.pdf

D. Permits requested:

Vesting Tentative Tract Map TR060678

Conditional Use Permit RCUP200500150

Oak Tree Permit ROAK200500057

Specific Plan Amendment for change to Long Canyon Road RPA201400001

Specific Plan Substantial Conformance Review 201400004

E. Summary of significant impacts:

Appendix B of Synopsis includes summary of significant impacts

II. Setting

A. Characteristics of the project site

1. Project description: See I.C above

1a SEA boundaries: Figure 3 of the Biological Technical Report (BTR; Page 11) and Figure 2 of Synopsis (Page 7)

2. General description of habitats present:

Habitat details found in BTR Section 4.1 (page 69): Includes descriptions of California Annual Grassland, Coastal Scrub, Brittle Bush Scrub, Undifferentiated Chaparral Scrubs, Chamise Chaparral, Chamise–Hoaryleaf Ceanothus Chaparral, Coast Live Oak Woodland, Herbaceous Wetland, Riverwash, Big Sagebrush Scrub, Arrow Weed Thickets, Blue Elderberry Stands, Mulefat Scrub, Emory's Baccharis Thicket, Disturbed Riparian Scrub, Southern Willow Scrub, Southern Coast Live Oak Riparian Forest, Southern Cottonwood–Willow Riparian Forest, Agriculture and Disturbed Lands.

Vegetation Maps: Figures 9-9F of BTR (pages 73-85) and Table 1 (page 4) and Figures 3A-3F of Synopsis (pages 11-21).

Soils are described in BTR Section 2.4 (page 22)

3. Color aerial photographs of the project with boundaries delineated.

   Figure 2 of Synopsis (page 7) and Figure 2 of BTR (page 5)

4. Color photographs of the project site with a key map:

   This is provided in separate ground-level photo exhibit appendix to this document. See also Appendix D of the 2012 and 2013 Homestead South Botanical Survey Report (Dudek 2013b)[2].

5. Plot the location of major plant communities on the site plan.

   Figures 9-9F of the BTR (pages 73-85) and Figures 4A-4F of Synopsis (pages 31-41).

6. Acreage and location; Original U.S.G.S. topographical quad sheet.

   Table 1 of BTR (page 20) and Synopsis (page 4) for acreages; Figure 2, Project Vicinity of BTR (page 5) for USGS map.

7. Watershed boundaries and Drainage patterns:

   See BTR Section 2.8 (Watershed; page 45). Additional discussion in RMDP/SCP EIS-EIR Section 2.6.3.1 and Figures 2.0-23 Santa Clara River Watershed Areas and 2.0-24 Upper Watershed in Los Angeles County and RMDP Study Area.

   The project area is within the Santa Clara River Watershed, which drains approximately 1,620 square miles of natural and urban areas north and east of Los Angeles in southern California (Dudek 2008)[3]. The watershed is divided into 14 sub-basins, which range in size from the 7,433-acre Sisar sub-basin in the western part of the watershed to the 291,730-acre Eastern sub-basin, within which the project area is located. Reflecting urban and agricultural uses, in terms of total area converted, the Eastern sub-basin has the most land conversion at 27,353 acres, or 9% of the sub-basin (based on California GAP data reported in Dudek 2008). However, most of the most of the upper part of the Eastern sub-basin is open space is contained within the Angeles National Forest. The Homestead South project site is wholly contained within the Eastern sub-basin and is just upstream of the Santa Felicia sub-basin (Dudek 2008).

8. Unusual or significant geological features:

   The geology of the project site is described in BTR Section 2.3 (page 21). There are no unusual or significant geological features on site.

9. Rough estimates of the population sizes of flora and fauna on the project site

   See Appendix D Population Estimates for Special-Status Wildlife on the Homestead South Project Site of the BTR. Estimates of the occurrences of special status species are also provided in Section 4.3 of the BTR (Table 6 Special-Status Plants Observed in the Homestead

[2] Dudek 2013b. *2012 and 2013 Botanical Survey Results for Homestead South Village Site, Los Angeles, California.* Prepared for The Newhall Land and Farming Company. Valencia, California: Dudek. August 2013.

[3] Dudek. 2008. *Draft Santa Clara River Watershed Study*. Prepared for the Newhall Land and Farming Company. Valencia, California: Dudek. October 2008

South Project Area and Table 9 Special-Status Wildlife Observed or with Moderate to High Potential to Occur in the Homestead South Project Area; pages 98 and 133).

10. Species anticipated on the site based on field observations:

    See BTR Sections 4.1 (Vegetation Communities; page 69-92), 4.2 (Wildlife; pages 93-95), 4.3 (Special-Status /Regulated Resources; pages 96-180) and Appendices A (Plant Species) and B (Wildlife).

B. Characteristics of the surrounding area

1. General description of habitats, vegetation communities, and landscape/wildlife linkages.

   Habitats are described in BTR Section 4.1 Vegetation Communities, Land Covers and Floral Diversity (including Table 5 Existing Vegetation Communities; pages 69-92):

   The vegetation of the project area was originally mapped in 2006 as part of the RMDP/SCP project vegetation mapping effort and then was updated in 2012 and 2013 (Dudek 2013b)[4]. The majority of the Homestead South site consists of scrub and chaparral community types. Table 5 provides the list of vegetation communities and land covers and their acreages on site. These vegetation communities and land covers are shown on Figures 9-9F Vegetation Communities. These vegetation communities and land covers are described in detail below at the floristic alliance where applicable.

   Descriptions of the following communities: California Annual Grassland, Coastal Scrub, Brittle Bush Scrub, Undifferentiated Chaparral Scrubs, Chamise Chaparral, Chamise–Hoaryleaf Ceanothus Chaparral, Coast Live Oak Woodland, Herbaceous Wetland, Riverwash, Big Sagebrush Scrub, Arrow Weed Thickets, Blue Elderberry Stands, Mulefat Scrub, Emory's Baccharis Thicket, Disturbed Riparian Scrub, Southern Willow Scrub, Southern Coast Live Oak Riparian Forest, Southern Cottonwood–Willow Riparian Forest, Agriculture and Disturbed Lands.

   From BTR Section 4.4 Wildlife Corridors and Habitat Linkages (page 182):

   Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Wildlife corridors contribute to population viability by assuring continual exchange of genes between populations, providing access to adjacent habitat areas for foraging and mating, and providing routes for recolonization of habitat after local extirpation or ecological catastrophes (e.g., fires).

   Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation. Habitat linkages provide a potential route for gene flow and long-term dispersal of plants and animals and may also serve as primary habitat for smaller animals, such as reptiles and amphibians. Habitat linkages may be continuous habitat or discrete habitat islands that function as stepping stones for dispersal.

[4] Dudek. 2013b. *2012 and 2013 Botanical Survey Results for Homestead South Village Site, Los Angeles, California.* Prepared for The Newhall Land and Farming Company. Valencia, California: Dudek. August 2013.

The Homestead South project site, indeed the Newhall Ranch Specific Plan area, is part of a larger regional wildlife movement interface that exists between the Los Padres/Angeles National Forest, the Santa Clara River, and the Santa Susana Mountains. This interface spans a distance of approximately 35 miles, from approximately Saticoy on the west in Ventura County to Castaic Junction on the east in Los Angeles County. The Santa Clara River forms the central east–west corridor of this interface, extending throughout the Newhall Ranch Specific Plan area and west into Ventura County. The Newhall Ranch Specific Plan site represents an approximately 2- to 5-mile-wide portion (6 to 14 percent) of this 35-mile-wide interface.

The Santa Clara River flows from its origins in the San Gabriel Mountains to where it eventually empties into the Pacific Ocean approximately 50 miles to the west. The river is an important migration, movement, and genetic dispersion corridor for many wildlife species, including aquatic taxa, riparian obligate species (resident and migratory), and larger, more mobile terrestrial animals.

Within the Newhall Ranch Specific Plan area, south of the Santa Clara River, several watersheds, including Long Canyon, Potrero Creek, and Salt Creek, are directly connected to the Santa Clara River through their own drainage systems, providing potential wildlife movement routes between the river and the Santa Susana Mountains to the south. These watersheds serve to provide habitat linkages between the High Country areas (to be preserved) within the Newhall Ranch Specific Plan to the Santa Clara River. Other watersheds, including Chiquito Canyon, San Martinez Grande, and Castaic Creek, connect the river to open space areas to the north and eventually the Angeles/Los Padres National Forests.

The Santa Clara River SMA is an important regional habitat linkage and east–west wildlife movement corridor for the larger high-mobility species. The project area also supports four identified local tributary habitat linkages which provide habitat connectivity between the Santa Clara River and uplands south of the River (BTR Figure 16, Regional and Local Wildlife Corridors). Long Canyon and Humble Canyon are located on the Homestead project site. Lion Canyon generally defines the boundary between the Homestead South site and Mission Village. Magic Mountain Canyon is located east of the Homestead South site and would be crossed by Magic Mountain Parkway. Currently these local tributary corridors are expected to convey a variety of wildlife, including large mobile species such as mule deer, mountain lion, and bobcat.

A conceptual regional open space plan developed by Penrod et al. (2006) depicts landscape scale habitat connectivity between the Santa Susana Mountains to the south and the Los Padres National Forest to the north. This landscape-level connectivity encompasses the High Country SMA/SEA, the Salt Creek area and, Santa Clara River west of the Homestead South site, which is entirely east of the regional habitat linkage (BTR Figure 7, South Coast Wildlands Open Space Connectivity and Linkage). The High Country SMA/SEA and Salt Creek area comprise an important part of the “least cost (best potential or optimal route) path” linkage design identified by Penrod et al. (2006). They also provide a key part of the east–west linkage that crosses I-5 and connects with the Angeles National Forest in the San Gabriel Mountains to the east and with Ventura County SOAR open space to the southwest. They also provide a significant part of the north–south linkage between the Santa Susana Mountains and the "Fillmore Greenbelt" to the northwest that further links up with the Los Padres National Forest and the Angeles National Forest to the north.

2. Existing land use: Existing land uses are described in BTR Section 2.5 Terrain (page 39) and 2.7 Non-Preserve Land Uses (page 40-45):

   The project area includes the Santa Clara River and mostly rugged terrain to the south of the river dominated by steep slopes (BTR Figure 6, Site Topography). It is dissected by two major southeast–northwest trending canyons that drain to the Santa Clara River – Long Canyon located along the southern portion of the project area and Humble Canyon located in the eastern portion of the project area. The project area is also bounded on the east by Lion Canyon, which generally defines the boundary between Homestead South and Mission Village. Off-site components of the project cross Magic Mountain Canyon to the east (BTR Figure 6, Site Topography). The southeast–northwest trending Sawtooth Ridge bisects the project area into roughly equal western and eastern halves. In addition to the Santa Clara River and associated floodplain that defines the northern boundary of the project, the site support two relatively flat terrain areas. The "Onion Fields" located south of and adjacent to the river, and just elevated above the river, are in the western portion of the project area. Grapevine Mesa is also adjacent to the river in the eastern portion of the project area, but is elevated approximately about 200 feet above the floodplain. Site elevations range from approximately 860 feet above mean sea level (amsl) along the Santa Clara River at the downstream western boundary of the project area to approximately 1,500 feet amsl along Sawtooth Ridge in the southeastern portion of the project area.

   Most of the project area is undeveloped due to its rugged terrain, but there is direct disturbance from past and ongoing oil and natural gas operations on about 38% of the project area (approximately 973 acres) of the project area, including associated dirt roads and oil pad ground clearance zones. The flatter upland areas adjacent to the Santa Clara River (Onion Fields and Grapevine Mesa) have been actively cultivated in recent years, and approximately 551 acres (22%) of the project area are mapped as agriculture.

3. Identify public and private open space or reserves in the surrounding area.

   Described in BTR Section 2.6 Existing and Planned Conservation (page 39):

   The project vicinity supports a large, interconnected system of conservation areas, including the approximately 1,181-acre Santa Clara River SMA/SEA within Newhall Lands, the 4,205-acre High Country SMA/SEA, and the 1,517-acre Salt Creek conservation area, and the spineflower preserves (BTR Figure 4, Jurisdictional Areas within Homestead South Development Plan). The Santa Clara River SMA/SEA intersects the Homestead South project area, but as described in this BTR, the vast majority of the Santa Clara River SMA/SEA on the project areas is completely avoided and protected and managed in perpetuity. These three large conservation areas provide the core of mitigation for Newhall projects, including Homestead South, as discussed in more detail in Section 5.0 of this BTR.

   The Santa Clara River SMA/SEA overlays the Santa Clara River and provides an important east-west riparian corridor in the region. This corridor also serves as an important connection between the upland habitats to the north and south of the River. The Santa Clara River SMA/SEA is comprised of aquatic, riparian and floodplain habitats within the Santa Clara River corridor that supports a variety of listed and special-status species. In

2013, the County revised the River Corridor SMA/SEA to include the two previously recorded conservation easements protecting the Grapevine Mesa (located on the Homestead South site) and Airport Mesa (located on Mission Village) occurrences of the spineflower.

The High Country SMA/SEA is located in the southern portion of the Newhall Ranch Specific Plan site and includes oak savannahs, high ridgelines, and various canyon drainages, including the portion of Salt Creek in Los Angeles County. Contiguous with the High Country SMA/SEA is the Salt Creek conservation area in Ventura County. The entire Salt Creek is a regionally significant wildlife corridor that provides an important north-south habitat link to the Santa Clara River that allows for wildlife movement between the Santa Susanna Mountains and the Santa Clara River and provides a direct connection between the Santa Clara River SMA/SEA and the High Country SMA/SEA.

The spineflower preserves provide an additional approximately 227 acres of conservation as mitigation for impacts to the spineflower associated with Newhall project impacts, including Homestead South (Dudek 2010)[5] (BTR Figure 4, Jurisdictional Areas within Homestead South Development Plan).

The South Coast Missing Linkages project (Penrod et al. 2006) is also relevant to Homestead South. The South Coast Missing Linkages project is a planning document showing broad-scale regional connections that would provide for landscape-scale habitat connectivity between the Santa Susana Mountains to the south and the Los Padres National Forest to the north. As shown in BTR Figure 7, South Coast Wildlands Open Space Connectivity and Linkage, these conceptual linkages encompass the High Country SMA/SEA and the Salt Creek conservation area within the Newhall Ranch Specific Plan area and the Santa Clara River west of the Specific Plan area. Penrod et al. (2006)[6] considered the High Country SMA/SEA and Salt Creek area, along with regional open space conservation areas and initiatives such as "SOAR," in recommending a linkage design that would connect the Santa Monica Mountains, San Gabriel Mountains, and the Sierra Madre Mountains

Public open space areas in the Newhall Ranch general area include:

Los Padres National Forest, including the Sespe Condor Sanctuary, Angeles National Forest, Santa Clarita Woodlands Park, Santa Susana Mountain Project, Porter Ranch Park, Porter Ridge Park, O'Melveny Park, Placerita Canyon Regional Park, Happy Camp Canyon Regional Park, Sage Ranch, Chatsworth Reservoir Park, Challenger Park, Tapo Canyon Regional Park, and Ahmanson Ranch Open Space Area (Upper Las Virgenes Preserve).

4. Actual or potential wildlife movement and gene flow between surrounding open space and reserves to the project site.

[5] Dudek. 2010. *Final Spineflower Conservation Plan*. Prepared for The Newhall Land and Farming Company. Valencia, California: Dudek. December 2010.

[6] Penrod, K., C. Cabanero, P. Beier, C. Luke, W. Spencer, E. Rubin, R. Sauvajot, S. Riley, and D. Kamradt. 2006. *South Coast Missing Linkages Project: A Linkage Design for the Santa Monica-Sierra Madre Connection.* Idyllwild, California: South Coast Wildlands, in cooperation with the National Park Service, Santa Monica Mountains Conservancy, California State Parks, and The Nature Conservancy.

Described in BTR Section 5.7 (Impacts to Wildlife Corridors and Habitat Connectivity; page 399)

As described in BTR Section 4.4, Long Canyon, Humble Canyon, Lion Canyon, and Magic Mountain Canyon were identified in the RMDP/SCP EIS/EIR as "local tributary corridors" that connect undeveloped uplands with the Santa Clara River, which is a critical regional wildlife corridor and habitat linkage (BTR Figures 17-17F Vegetation Impacts). Long Canyon is the most prominent of the three corridors and extends well south of the project area. Humble Canyon and Lion Canyon are shorter tributaries that drain runoff from the hills in the project area. The extension of Magic Mountain Parkway crosses Magic Mountain Canyon.

Development of the project will preclude or constrain wildlife movement along the tributary corridors. Long Canyon and Lion Canyon will primarily be man-made open space that may retain some function for more urban-tolerant wildlife such as coyotes and possible mule deer, but probably will not support movement by less tolerant species such as mountain lion and bobcat due to adjacent urbanization. Humble Canyon will be part of the spineflower preserve and directly connect to the Santa Clara River, but the southern portion of the Canyon will be bordered by development, thus precluding a north-south habitat connection. Likewise, Magic Mountain Canyon will be constrained by adjacent development.

The Santa Clara River SMA will be preserved in open space, but will be crossed by the Long Canyon Bridge and buried bank stabilization would be construction in some areas of the River bank. The Flood Hydraulics Impacts Assessment (PACE 2009) found that there would be no significant impacts in water flows, velocities, depth, sedimentation, or floodplain and channel conditions resulting from these project features, and that these hydrologic effects would not substantially alter the amount, location, and nature of aquatic and riparian habitats within the project area and downstream into Ventura County over the long term. Therefore, habitat connectivity in the River corridor for the Fish and Reptile and Amphibian Semi-Aquatic Guild species would not be substantially affected. Likewise, any other species using the River corridor and adjacent uplands for movement or habitat connectivity would not be substantially affected, including the Mammal – High Mobility, Mammal – Moderate Mobility, Low Mobility, and the Bird guilds. For these reasons, construction of the project would not result in significant impacts to wildlife movement along the Santa Clara River.

The consideration of impacts to wildlife landscape habitat linkages falls under the following significance criteria as previously identified in BTR Section 5.1: Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

As discussed in BTR Section 4.4, the River Corridor SMA is a critical habitat linkage in the project area. The combined High Country SMA and Salt Creek area provide the most direct connections between the River corridor habitat and large upland habitat areas south of the River, and are those identified by Penrod et al. (2006) as important components of regional habitat connectivity. These habitat linkages will remain intact and functional after build out of the Specific Plan, including the Homestead South project. The Castaic/Hasley corridor will also remain intact as open space, allowing for movement of many Mammal – High Mobility species such as coyote, mule deer, and possibly mountain lion and bobcat, and will function as live in habitat and movement habitat for the other species guilds. The Castaic/Hasley corridor will continue to have connectivity value between the Santa Clara River and upland habitats to the northeast of the Project area extending to Castaic Lake and the Angeles National Forest.

5. Overall biological value of the project site:

   The project site contains habitats of high biological value and these habitats collectively meet various ecological and life history requirements (i.e., food, shelter, nesting, dispersal) of numerous wildlife species. The riparian communities on the project site provide suitable habitat for numerous common and special-status wildlife species. Santa Ana sucker, unarmored threespine stickleback, arroyo chub, western pond turtle, two-striped garter snake, least Bell's vireo, Cooper's hawk, Lawrence's goldfinch, yellow warbler, white-tailed kite, Nuttall's woodpecker, yellow-breasted chat and other special-status species have been documented within the riverine and riparian habitats on the project site, while numerous other species have potential to occur based on the presence of suitable habitat. Also, an undescribed species of everlasting occurs within the river corridor. Additionally, the portion of the Santa Clara River (and associated riparian habitats) on and bordering the project site is an important migration and genetic dispersion corridor for many wildlife species, including aquatic taxa, riparian obligate species (resident and migratory) and larger, more mobile terrestrial animals.

   The upland habitats on the project site, including California sagebrush scrub, undifferentiated chaparral, California grassland, live oak woodland, and valley oak savannah, also provide suitable habitat for numerous common and special-status wildlife species. California (silvery) legless lizard, coastal whiptail, southern California rufous-crowned sparrow, western burrowing owl, northern harrier, California horned lark, loggerhead shrike, San Diego desert woodrat, American badger and several special-status bat species have been documented utilizing upland habitats on the site, while numerous other species have potential to occur based on the presence of suitable habitat. The upland habitats on the project site also support populations of San Fernando Valley spineflower, slender mariposa lily, and Peirson's morning glory.

6. Rough estimates of the overall population sizes and distributions of species of flora and fauna:

   This is included in Appendix D Population Estimates for Special-Status Wildlife on the Homestead South Project Site of the BTR, similar to results found for Landmark and Mission Villages.

C. Exhibits

1. Vicinity map of appropriate scale: BTR Figure 1 (page 3) is Regional Map (also included as Synopsis Figure 1; page 5).

2. Map of appropriate scale showing generalized land use on the project site and on surrounding properties to immediate adjoining parcels:

   This is provided as BTR Figure 2 (page 5) and Synopsis Figure 2 (page 7).

3. High quality photographs of the site, proposed pad locations, and surrounding areas indicating the site boundaries:

Photographs are provided in a separate ground-level photo exhibit appendix to this document. See also Appendix D of the 2012 and 2013 Homestead South Botanical Survey Report (Dudek 2013b)[7].

III. General Biota Survey and discussion of the project site

A. Survey of the flora and vertebrate and butterfly fauna or other significant biota:

This is provided in BTR Section 4.1 Vegetation Communities (pages 69-92), Section 4.2 Wildlife (pages 93-96) and Section 4.3 Special Status/Regulated Resources (pages 96-181).

Table 4 of the BTR (page 53) provides a summary of the various biological studies that have been conducted since 1993 in areas that overlap the Homestead South project area, as well as the Mission Village, Landmark Village, Potrero Village, and Entrada South projects where off-site impacts would occur. For the cumulative list of plant species observed in the project area, see BTR Appendix A. For the full cumulative list of all wildlife observed in the project area, see BTR Appendix B.

B. The surveys must adhere to the standard techniques expected by California Department of Fish and Wildlife: This was completed by field surveys.

C. Survey must be conducted during the optimum period for observing the taxa of concern: This was completed by multiple field surveys.

D. Survey must include a list of the butterfly fauna present on site:

The BTR Section 4.2.6 Butterflies and Moths (page 95) includes the following:

Thirty-three butterfly and moth species were observed in the project area representing six families, including: six species of blues, hairstreaks and coppers such as western tailed-blue (*Everes amyntula*) and lupine blue (*Plebejus lupine*); ten species of brush-footed butterflies such as California sister (*Adelpha bredowii*) and common buckeye (*Junonia coenia*); two species of metalmarks – Behr's metalmark (*Apodemia mormo virgulti*) and Mormon metalmark (*Apodemia mormo*); six species of skippers, including funereal duskywing (*Erynnis funeralis*) and Sandhill skipper (*Polites sabuleti*); three species of swallowtail, including pale swallowtail (*Papilio eurymedon*), western tiger swallowtail (*Papilio rutulus*), and anise swallowtail (*Papilio zelicaon*); and six species of whites and sulfurs, including Pacific sara orangetip (*Anthocharis sara sara*) and cabbage white (*Pieris rapae*).

E. Dates and time periods spent on the site:

See BTR Section 3 Methods (pages 49-68) and Table 4 Summary of Biological Surveys (page 53)

Many project-site-specific biological surveys have been conducted related to vegetation mapping, general plant surveys, general wildlife surveys, and focused surveys for special-status/regulated species. Table 4 provides a summary of the various biological studies that have been conducted since 1993 in areas that overlap the Homestead South project area, as

[7] Dudek 2013b. *2012 and 2013 Botanical Survey Results for Homestead South Village Site, Los Angeles, California.* Prepared for The Newhall Land and Farming Company. Valencia, California: Dudek. August 2013.

well as the Mission Village, Landmark Village, Potrero Village, and Entrada South projects where off-site impacts would occur. The surveys conducted between 2002 and 2007 were conducted as part of the RMDP/SCP baseline data development in support of the preparation of the EIS/EIR, and included special-status plants surveys, vegetation mapping, and focused wildlife surveys on the Homestead South site, as well as the Mission Village, Landmark Village, Potrero Village, and Entrada South projects. The surveys conducted on these sites 2011 through 2013 provide additional and up-to-date project-specific information in support of the Homestead South EIR.

F. Methods utilized: Described in BTR Section 3.2.1 Vegetation Community Mapping (page 52), 3.2.2 Flora (Page 63) and 3.2.3 Fauna (page 64)

G. Personnel (names and addresses) involved in the field work: The names and addresses of the personnel are included in the individual technical reports listed in Tables 3 (page 49) and 4 (page 53) of the BTR.

H. Rough estimates of the population size of flora and fauna on the project site:

This is provided in Appendix D Population Estimates for Special-Status Wildlife on the Homestead South Project Site of the BTR with similar results as that found in Landmark and Mission Villages.

I. Lists of species observed/collected/anticipated on the project site: Provided in BTR Appendix A (Plant Species) and B (Wildlife)

J. A bibliography of the references: Included in BTR Section 7 References (page 503)

K. A list of persons contacted and their institutional affiliations:

Lists of persons contacted and their institutional affiliations are included in the technical reports listed in Tables 3 (page 49) and 4 (page 53) of the BTR.

L. Proof of permits, or Memoranda of Understanding for trapping.

This information is included, where applicable, in the technical reports listed in Tables 3 (page 49) and 4 (page 53) of the BTR.

IV. <u>Sensitive Species and Communities:</u>

Special-status species and sensitive communities information is provided in Synopsis Appendix A

BTR Section 4.3.1 Special-Status Plant Species (and Table 6 Special-Status Plant Species Observed and Table 7 Special-Status Plant Species Not Observed; pages 96-130, 98, and 103), Section 4.3.2 Special-Status Wildlife Species (and Table 9 Special-Status Wildlife Observed or with Moderate to High Potential to Occur in the Homestead South Project Area and Table 10 Special-Status Wildlife Not Observed and Not Expected to Occur in the Homestead South Project Area; pages 131-170, 133, and 154) and Section 4.3.3 Special-Status Vegetation Communities (pages 179-180).

A. All Endangered/Threatened/Rare species, unique species, or taxa of special concern to Local, State, Federal Agencies:

This is covered in BTR Sections 4.3.1 (page 96) and 4.3.2 (page 131)

B. Endangered/Threatened/Rare/Unique/Special Concern species on the site:

Special status species occurring on site are described in BTR Section 4.3.1 Special-Status Plant Species (and Table 6 Special-Status Plant Species Observed; pages 96-130, and 98), Section 4.3.2 Special-Status Wildlife Species (and Table 9 Special-Status Wildlife Observed or with Moderate to High Potential to Occur in the Homestead South Project Area ; pages 131-170, and 133). The survey methods are summarized in Section 3.2 of the BTR (pages 51-68) and are provided in more detail in the technical reports listed in Tables 3 (page 49) and 4 (page 53) of the BTR.

C. California Department of Fish and Wildlife California Natural Diversity Data Base consultation: Completed; See BTR Section 4.3 Special-Status/Regulated Resources (page 96).

D. SEA sensitive resources specialist consultation: Completed; See BTR Tables 3 (page 49) and 4 (page 53) which outline technical reports prepared for Homestead South and the surrounding area. See BTR Section 4.3 Special-Status/Regulated Resources (page 96).

V. Impacts

A. Map showing the relationship between major vegetative types and land alteration: This is provided in BTR Figures 17-17F (pages 199-211) and Synopsis Figures 4A-4F (pages 31-41).

B. The amount (volume) of proposed grading for building pads, roads, and driveways:

Total grading for the Homestead South project includes 35,700,000 cubic yards (cy) of cut (33,333,000 cy of cut within the tract map boundary and 2,367,000 cy outside of tract boundary) and 35,700,000 cy of fill (29,323,000 cy within the tract map boundary, 577,000 cy outside of the tract boundary with 5,800,000 cy to be transported to the Landmark Village tract boundary). Offsite infrastructure improvements grading includes 4,000,000 cy of cut and 4,000,000 cy of fill for the extension of Magic Mountain Parkway; 160,000 cy of cut and 45,000 cy of fill for a Southern California Edison (SCE) substation with an additional 115,000 cy of fill to a SCE substation disposal site; and 7,000 cy of cut and 285,000 cy of fill for the utility corridor.

BTR Table 12 Permanent and Temporary Impacts to Vegetation Communities and Land Covers on the Homestead South Site (page195)

C. The number and species of significant trees: Oak Impacts Described in BTR Section 5.3.1 Direct Impacts to Vegetation Communities (page 195). Impacts to southern California black walnut are described in BTR Section 5.4.1 Direct Impacts to Special Status Plants (page 233).

D. Short and long term impacts to life history of all plant or animal species of special concern:

Short and long term impacts are addressed in BTR Sections 5.3 (Impacts to Vegetation Communities and Land Covers; page 195), 5.4 (Impacts to Special Status Plants; page 233) and 5.5 (Impacts to Special Status Wildlife Species; page 260).

E. The effect of the project on the integrity of the SEA:

See BTR Section 5.8 (Impacts to Regional Resource Planning; page 401), specifically Impact BIO-83 and Impact BIO-84.

The Santa Clara River SEA totals 27,097 acres, of which 1,181 acres are within the RMDP/SCP boundary. Of the 1,181 acres, 38 acres would be permanently impacted and 122 acres would be

temporarily impacted by the Landmark Village, Mission Village, and Homestead South projects. Of the 38 acres of permanent impacts to the SEA, Homestead Village would not result in any impacts to the SEA outside of the SEA impacts already analyzed for the Landmark Village and Mission Village CUPs.

Of the 122 acres of temporary impacts to the Santa Clara River SEA, the Homestead South project would result in 14.8 acres of temporary impacts in the new SEA areas, including 1.4 acres in Castaic Creek and 13.4 acres in Grapevine Mesa (Dudek 2013g)[8]. The impacts to the 1.4 acres in Castaic Creek were previously analyzed for Landmark Village and Mission Village prior to the revised SEA designation. The impacts to 13.4 acres on Grapevine Mesa were not previously analyzed for Landmark Village and Mission Village but were analyzed in the RMDP/SCP EIS/EIR.

The 1.4 acres of temporary impact in Castaic Creek are associated with bank stabilization on the northern bank to address erosion and stabilize an existing public roadway, and with buried utilities on the north side of the SR-126 bridge over Castaic Creek. The 13.4 acres of temporary impact on Grapevine Mesa are associated with restoration of agricultural lands along the eastern boundary of the spineflower preserve.

These temporary direct impacts to the SEA would be significant, but would be reduced to less than significant through implementation of a variety of mitigation measures.

As part of the Homestead South project approvals, a project-level SEA CUP is now required to authorize project-specific development within the boundaries of the adopted River Corridor SMA/SEA 23 in order to implement the Homestead South project. The project-specific development proposed within the adopted River Corridor SMA/SEA 23 is as follows: (a) Long Canyon Road Bridge; (b) bank stabilization; (c) underground utility corridor; (d) storm drain outfalls and associated energy dissipaters; (e) riparian mitigation sites; and (f) off-site transport of materials associated with grading.

F. The effect of "brush" clearance on plant and animal species: Fuel modification impacts are included in the permanent impact footprint discussed in BTR Section 5.3.1 Direct Impacts to Vegetation Communities (page 195)

G. Potential damage to wildlife habitats and vegetation communities from accessory structures: Infrastructure resources and impacts are discussed as off-site resources and impacts

H. Provide an analysis of wildlife corridors and habitat linkages relevant to the SEA and surrounding open space:

BTR Section 5.7 Impacts to Wildlife Corridors and Habitat Connectivity (page 399) includes the following discussion:

The consideration of impacts to wildlife landscape habitat linkages falls under the following significance criteria as previously identified in Section 5.1: Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

[8] Dudek. 2013g. *2013 Biological Resources Synopsis for the Homestead South Site*. Prepared for The Newhall Land and Farming Company. Valencia, California. Dudek. November 2013.

The loss or constraint of the local tributary corridors – Long Canyon, Humble Canyon, Lion Canyon and Magic Mountain Canyon – would not meet the significance criteria listed above because of the alternative regional landscape habitat linkages that will remain intact and fully functional. Species currently using these other areas may be displaced as a result of the project, but the landscape-scale habitat connections for regional wildlife movement would not be substantially affected. Therefore, while the project would result in adverse impacts to local wildlife movement, impacts wildlife landscape habitat linkages would be less than significant and no mitigation is required. However, movement of certain wildlife species in the project area following development will be facilitated by the following mitigation measures:

HS-17 (dedication of the Salt Creek area to the public and enhancement of existing agricultural undercrossing at SR-126)

HS-84 (preparation and implementation of a wildlife movement corridor plan and signage indicating potential wildlife crossings)

I. Discuss related projects and cumulative impacts (past, present, and future) including maps depicting project boundaries:

The Cumulative Discussion will be available during the presentation at the SEATAC meeting discussion cumulative vegetation impacts within Newhall Ranch Specific Plan. A summary of this information will be provided prior to the SEATAC meeting.

VI. Mitigation Measures

See BTR Section 6 Project Mitigation Measures

A. The acreage and percentage of the site that is to be left as natural open area: Details include in BTR Table 1 (page20) and Synopsis Table 1 (page 4).

B. The relationship of the natural open area to the vegetation communities: Completed; contained in BTR 4.4 Wildlife Corridors and Habitat Linkages (page 182)

C. Short and long term measures that will be taken to protect and manage the natural open areas:

Short and long term impacts to natural open areas, and associated mitigation measures, are addressed in BTR Sections 5.3 (Impacts to Vegetation Communities and Land Covers; page 195), 5.4 (Impacts to Special Status Plants; page 233) and 5.5 (Impacts to Special Status Wildlife Species; page 260).

D. The type and amount of landscaping: Acknowledged; native species will be included in the landscape plant palettes.

VII. SEA design compatibility criteria

A. The report must include a discussion of how the project is consistent with the SEA Conditional Use Permit compatibility criteria:

Development of the Homestead South project within portions of SEA 23 would maintain water bodies, watercourse and their tributaries in a natural state, consistent with the Newhall Ranch Specific Plan and CUP 94-087. Similar to Landmark Village and Mission Village, Homestead South can be found to conform to the General Plan SEA "compatibility design criteria." Because the

development is designed to be highly compatible with biotic resources present within SEA 23, including the setting aside of appropriate and sufficient undisturbed areas; and that wildlife movement corridors are left in a natural and undisturbed condition within the existing SEA 23, the development retains sufficient natural vegetative cover and open spaces to buffer critical resources within the existing SEA 23 from the proposed development; provides fences or walls where necessary to buffer important habitat within existing SEA 23 from proposed development; and is located and designed roads and utilities serving the development so as not to conflict with critical resources, habitat areas, or migratory paths within the existing SEA 23.

1. That the requested development is designed to be highly compatible with the biotic resources present, including the setting aside of appropriate and sufficient undisturbed areas, and

   BTR Section 5.8 (page 401) provides the following:

   The Santa Clara River SEA totals 27,097 acres, of which 1,181 acres are within the RMDP/SCP boundary. Of the 1,181 acres, 38 acres would be permanently impacted and 122 acres would be temporarily impacted by the Landmark Village, Mission Village, and Homestead South projects. Of the 38 acres of permanent impacts to the SEA, Homestead Village would not result in any impacts to the SEA outside of the SEA impacts already analyzed for the Landmark Village and Mission Village CUPs.

   Of the 122 acres of temporary impacts to the Santa Clara River SEA, the Homestead South project would result in 14.8 acres of temporary impacts in the new SEA areas, including 1.4 acres in Castaic Creek and 13.4 acres in Grapevine Mesa (Dudek 2013g)[9]. The impacts to the 1.4 acres in Castaic Creek were previously analyzed for Landmark Village and Mission Village prior to the revised SEA designation. The impacts to 13.4 acres on Grapevine Mesa were not previously analyzed for Landmark Village and Mission Village but were analyzed in the RMDP/SCP EIS/EIR.

   The 1.4 acres of temporary impact in Castaic Creek are associated with bank stabilization on the northern bank to address erosion and stabilize an existing public roadway, and with buried utilities on the north side of the SR-126 bridge over Castaic Creek. The 13.4 acres of temporary impact on Grapevine Mesa are associated with restoration of agricultural lands along the eastern boundary of the spineflower preserve.

2. That the requested development is designed to maintain water bodies, watercourses and their tributaries in a natural state, and

   As contemplated in the Specific Plan, Long Canyon Road Bridge will require the placement of abutments and piers within the Santa Clara River. The effect of the Long Canyon Road Bridge crossing was assessed in the Newhall Ranch Specific Plan Final Additional Analysis, Section 2.3, Floodplain Modifications and appropriate mitigation was required. The Homestead South EIR will include additional environmental analysis of the bridge and abutments. Also contemplated by the Specific Plan, the Homestead South development will include bank stabilization, where found necessary to project development from erosion. Bank stabilization is proposed to be buried in all areas except at outlet structures, access ramps and bridge abutments where it is

[9] Dudek. 2013g. *2013 Biological Resources Synopsis for the Homestead South Site*. Prepared for The Newhall Land and Farming Company. Valencia, California. Dudek. November 2013.

expected that grouted rock or reinforced concrete will be required to meet Public Works standards.

BTR Section 5.6 Impacts to Jurisdictional Waters (page 393) provides the following analysis and discussion.

Impacts to jurisdictional waters (including wetlands) would be as follows:

- Permanent direct impacts to 15.2 acres and temporary direct impacts to 11.7 acres of waters of the U.S. and waters of the State including:
- Permanent direct impacts to 24.5 acres and temporary direct impacts to 31.3 acres of CDFW jurisdictional streambeds. The CDFW jurisdictional streambeds are inclusive of the waters of the U.S. and waters of the State.

The primary mechanisms for mitigating the permanent loss of waters and wetlands are (1) implementation of mitigation measures designed to restore the habitat functions and services/values of waters and wetlands that are lost through construction and (2) dedication and maintenance of existing natural lands in the River Corridor SMA, High Country SMA, and Salt Creek area. These mitigation measures will offset the direct removal of riparian vegetation communities in the project area.

In order to reduce short-term and long-term indirect impacts to waters and wetlands, the project applicant will implement a set of existing mitigation measures approved for the Specific Plan EIR and additional measures that are designed to reduce or minimize the effects of the project on these resources.

See BTR Section 5.6 Impacts to Jurisdictional Waters for a discussion of mitigation measures which will reduce impacts to jurisdictional waters to less than significant.

3. That the requested development is designed so that wildlife movement corridors (migratory paths) are left in an undisturbed and natural state, and

Homestead South is designed so that wildlife movement corridors remain undisturbed and in a natural condition. Consistent with the Specific Plan, wildlife migratory paths within SEA 23 will be left mostly undisturbed, with limited exception at the Long Canyon Road Bridge abutment and pier locations. Other proposed development contemplated within SEA 23, including a river trail, storm drain outlets, utility lines, Long Canyon Road Bridge, bank stabilization, and water quality basins) will have a negligible impact on migratory pathways, and the riparian mitigation areas will provide beneficial cover for migratory animals. Additionally, the presence of the spineflower preserve was not originally designated in the original specific plan design, it will add 67.4 acres not anticipate din the Specific Plan.

BTR Section 5.7 Impacts to Wildlife Corridors (page 399) describes impacts to wildlife corridors and provides a discussion of mitigation measures, which reduce those impacts to less than significant.

While the project would cause adverse impacts to local wildlife movement, impacts to wildlife landscape habitat linkages would be less than significant and no mitigation is required. Nevertheless, the following mitigation measures will facilitate wildlife movement in the project area following development:

- **HS-17** (dedication of the Salt Creek area to the public and enhancement of existing agricultural undercrossing at SR-126)
- **HS-84** (preparation and implementation of a wildlife movement corridor plan and signage indicating potential wildlife crossings).

These two mitigation measures, in addition to establishment of the large, interconnected open space system (i.e., the combined River Corridor SMA, High Country SMA, and Salt Creek area) will include species measures to enhance and protect wildlife movement in potential bottleneck or otherwise sensitive areas.

4. That the requested development retains sufficient natural vegetative cover and/or open spaces to buffer critical resource areas from said requested development, and

   Consistent with the Specific Plan, Homestead South will retain sufficient natural vegetative cover and open space areas to complement SEA 23 and to buffer critical resources areas from future development. Homestead South residential and commercial development will be set back from the Santa Clara River consistent with the minimum 100-foot buffer adjacent to the Santa Clara River. Only necessary infrastructure (e.g., water quality basins, bridge abutments, storm drain outlets, and bank stabilization) will be constructed within the setback areas, consistent with the Specific Plan's limiting of uses within the buffer area to public infrastructure, abutments, trails and parks.

   See BTR Section 5.7 (page 399) and response to Item 3 above.

5. That roads and utilities serving the proposed development are located and designed so as not to conflict with critical resources, habitat areas or migratory paths.

   Fences and walls will be provided where necessary to buffer important areas of SEA 23 from development. Mitigation measures will be incorporated to protect significant habitat within SEA 23, such as the spineflower preserve. Homestead South's roads and utilities are designed and located to not conflict with critical biological resources, habitat areas, or migratory pathways. Most of the roadway infrastructure is designed away from SEA 23 resources to avoid direct impacts to the SEA.

   See BTR Section 5.7 (page 399) and response to Item 3 above.

B. The General Plan established the following land uses as compatible, by definition, with the SEAs:

   1. Regulated scientific study
   2. Passive recreation including wildlife observation and photography
   3. Limited picnicking, riding, hiking, and overnight camping

   While the above uses are not the primary land uses proposed by the Homestead South residential project, some of these uses may be undertaken as part of mitigation monitoring or in use of the public trails.

C. In addition, the following uses may be compatible as determined from the biotic survey and from such conditions that may be necessary to protect the biological resources within the SEA:

The details below are informational only

1. Residential uses at densities compatible with resource values present and consistent with community character in terms of overall density and magnitude as defined in adopted community, areawide, or countywide plans

2. Commercial uses of a minor nature serving local residents and visitors, where provided for in an adopted community or areawide plan

3. Public and semi-public uses essential to the maintenance of public health, safety, and welfare, where no alternative site or alignment is feasible

4. Agricultural uses compatible with the resources present

5. Extractive uses, including oil and gas recovery, and rock, sand, and gravel quarrying, where compatible with identified biotic resources.

VII. Monitoring Program

For each mitigation measure a monitoring program must be included. It shall address the standard to be met, timing, and the responsible party.

A discussion of mitigation measures specific to Homestead South are contained in Chapter 6 of the BTR (page 415).

Provide a resume or statement of qualifications of all personnel responsible for preparing the report

Resumes for primary authors of BTR are attached as an appendix to this document.

APPENDIX A

Photo Exhibits

PHOTO REPORT
for the
Homestead South Site
Los Angeles County, California

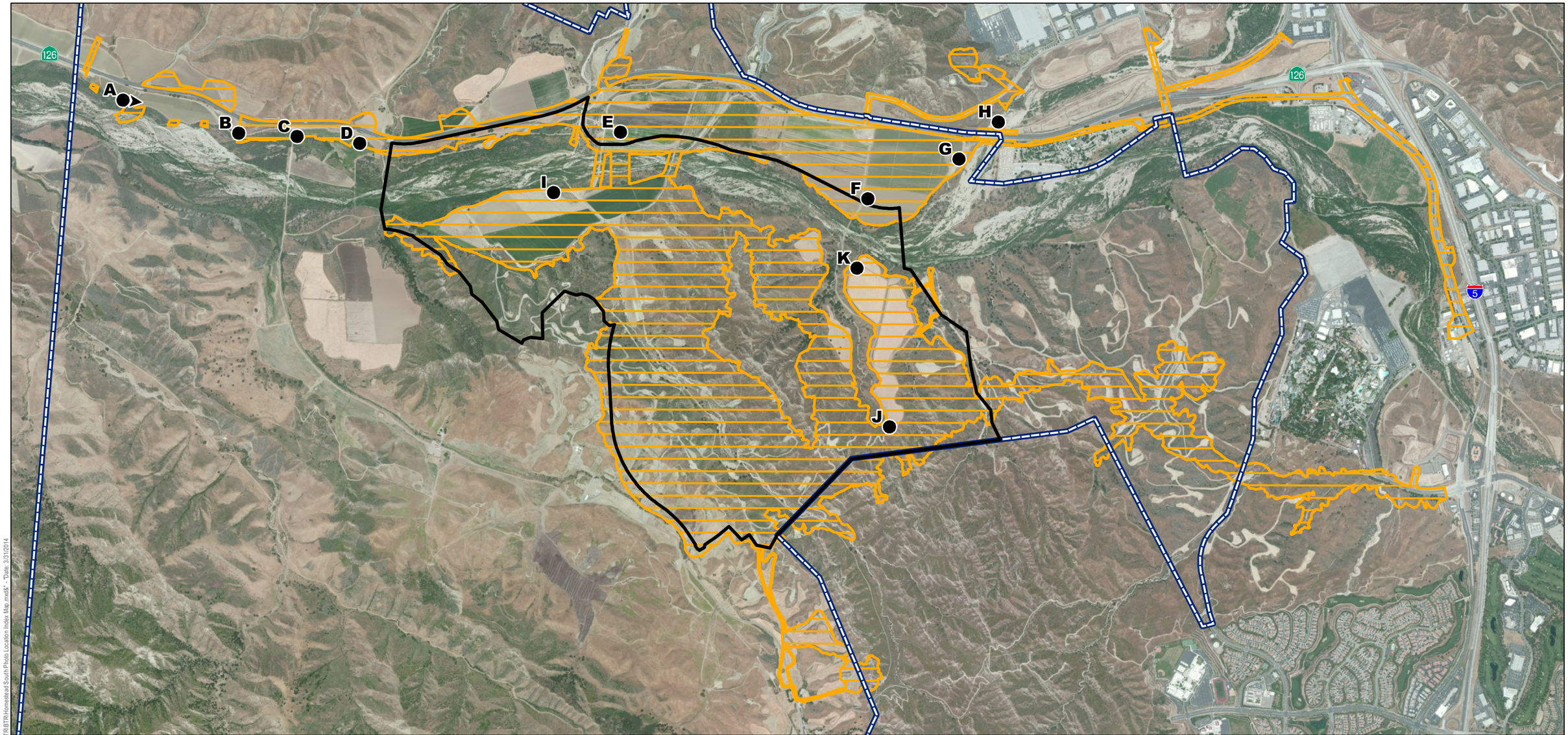
Prepared for:

The Newhall Land and Farming Company
25124 Springfield Court, Suite 300
Valencia, California 91355
Contact: Corey Harpole

Prepared by:

DUDEK
605 Third Street
Encinitas, California 92024
Contact: Sherri Miller

APRIL 2014



Homestead South Tract Boundary

Homestead South Development Footprint

Newhall Ranch Specific Plan (NRSP)

Photo Point

0 1,000 2,000 Feet

SOURCE: ESRI Online Basemap

DUDEK

Homestead South Photo Location Index Map

\\DUDEK-FILES\GIS\Data\Projects\j373801\2014_Scoped\MAP\DOC\MAPS\216_Homestead South BTR\BTR-Homestead South Photo Location Index Map.mxd* - Date: 3/31/2014

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Location A – looking easterly

Location B – looking westerly

Location B – looking southeasterly

Location B – looking easterly

Location B – looking easterly

Location C – looking easterly

Location C – looking westerly

Location D – panorama (left easterly)

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Location E – looking easterly

Location E – looking westerly

Location F – looking easterly

Location F – looking easterly

Location G – panorama left easterly (Castaic Creek bridge)

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Location H – panorama left easterly

INTENTIONALLY LEFT BLANK

Location I – looking westerly

Location I – looking easterly

Location I – looking northerly

Location J – panorama left westerly

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Location K – looking northerly

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APPENDIX B

RESUMES

Sherri Miller – Principal

Sherri Miller has 20 years' professional experience as an environmental planner specializing in habitat conservation planning, resource management, wetlands and endangered species permitting, and California Environmental Quality Act/National Environmental Policy Act (CEQA/NEPA) environmental documentation and compliance. Ms. Miller has extensive experience managing large-scale projects for public and private clients, including those involving conservation planning, flood control, water and wastewater utilities, transportation, and master-planned community projects. Combining expertise in environmental documentation, biological resources, and regulatory permitting, Ms. Miller's in-depth understanding of how environmental regulations interrelate helps clients prepare a strategic approach to permitting and documentation for greater project advancement and cost-effectiveness.

Education

Duke University
MS, Botany, 1994

Washington and Lee University
BS, Biology, 1992

Professional Affiliations

Association of Environmental Professionals (AEP)

Association of California Water Agencies (ACWA)

Women's Environmental Council (WEC)

WateReuse Association, Sierra Foothills Central Valley, Los Angeles, Inland Empire, and San Diego Chapters

Project Experience

South Sacramento Habitat Conservation Plan (SSHCP) and Aquatic Resources Plan (ARP); Sacramento County, City of Elk Grove, City of Galt, City of Rancho Cordova, Sacramento County Water Agency, Sacramento Regional Sanitation District, Sacramento Area Sewer District, and Capital Southeast Connector Joint Powers Authority; Sacramento County, California. Serving as the project manager for the SSHCP and ARP, assisting the Plan Partners (Sacramento County, City of Elk Grove, City of Galt, City of Rancho Cordova, Sacramento County Water Agency, Sacramento Regional Sanitation District, Sacramento Area Sewer District, and Capital Southeast Connector Joint Powers Authority) in finalizing the SSHCP and ARP. The SSHCP provides a regional approach to balancing development against conservation and protection of habitat, open space, and agricultural lands within a 374,000-acre study area. The SSHCP protects 30 species of plants and wildlife, including 10 that are listed as threatened or endangered under the federal Endangered Species Act, the California Endangered Species Act, or both. The SSHCP also protects vernal pool, wetland, and stream habitats that are subject to sections 401 and 404 of the federal Clean Water Act, California's Porter–Cologne Water Quality Control Act, and California Fish and Game Code Sections 1600, et seq. Under the ARP, the Plan Partners are seeking master wetlands permits, a master streambed alteration agreement, and/or waste discharge requirement.

Sutter Yuba Regional Conservation Plan (RCP) Environmental Impact Statement (EIR)/Environmental Impact Statement (EIS), Yuba and Sutter Counties, California. Served as lead biologist for the EIR/EIS for the Sutter Yuba RCP, which is envisioned to serve as a Habitat Conservation Plan (HCP)/Natural Community Conservation Plan (NCCP) for the Counties of Yuba and Sutter and Cities of Wheatland, Yuba City, and Live Oak. The Plan includes natural communities, such as flooded herbaceous cropland, woody cropland, rice land, and wildland communities, including river and stream systems, vernal pool complexes, grasslands, and oak savanna-woodland. Covered species include vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardi*), Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), giant garter snake (*Thamnophis gigas*), Swainson's hawk (*Buteo swainsoni*), and several additional birds, as well as western spadefoot

(*Spea hammondii*), northwestern pond turtle (*Emys marmorata marmorata)*, and Boggs Lake hedge-hyssop (*Gratiola heterosepala*) and several additional plant species. The Plan will provide endangered species coverage for commercial, residential, industrial, and associated development; public and private infrastructure; water supply and delivery facilities; waste management facilities; and HCP/NCCP management activities. Covered activities will also include operation and maintenance of public service, public and private infrastructure, recreational, transportation, flood control and other stream-related and waste management facilities and HCP/NCCP management activities.

Newhall Ranch Resource Management and Development Plan, Newhall Land and Farming Inc., Los Angeles and Ventura Counties, California. Served as project manager for extensive environmental documentation and permitting, led the preparation of a 2,700-page biology section of EIS/EIR (the lead agencies were the U.S. Army Corps of Engineers (ACOE) and California Department of Fish and Game (CDFG), which changed its name to the California Department of Fish and Wildlife (CDFW) in 2013). Coordinated with the ACOE and CDFG in processing a Section 1602 Master Streambed Agreement and Section 404 Individual Permit for a 13,000-acre master-planned community. Prepared a Biological Assessment for Section 7 consultation and 2081 permits for impacts to the state-listed threatened San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*) and other six state-listed wildlife species. Oversaw the biological surveys program, including vegetation mapping for over 17,000 acres, focused surveys for special-status plants and animals, wetlands delineations, hydrogeomorphic analyses, water budget analyses, a watershed study, habitat management plans, and wetlands and uplands habitat restoration plans.

Desert Renewable Energy Conservation Plan (DRECP), California Energy Commission, Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San Diego Counties, California. Serving as reviewing botanist for plant species accounts prepared in pursuit of the NCCP for the DRECP, a plan that is intended to address renewable projects in the California desert (Mojave and Colorado deserts), encompassing parts of six counties.

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) NCCP/HCP, County of Riverside, California. Lead botanist for the MSHCP, which addressed the ecology of over 40 special-status plant species within 1.26 million acres of covered lands (permitted and being implemented). Drafted wetlands and special-status species "take" policies, as well as an adaptive management program.

Salton Sea Species Habitat Conservation Project, ACOE and California Natural Resources Agency, Imperial County, California. Served as senior reviewer for project permitting, which included wetlands (Section 401 and 404, Section 1600) and endangered species (Section 7 and Section 2081). The project consists of creating approximately 2,400 acres of new saline pond habitat near the confluence of the New and Alamo Rivers and the Salton Sea. The project would result in the establishment of new shallow water habitat for fish and fish-eating bird species that use the Salton Sea for breeding, migratory stopover, and residential habitat.

Yokohl Ranch Development Project, Yokohl Ranch Company, Tulare County, California. Serving as lead for biology-related efforts for the project. Yokohl Ranch LLC contracted with Dudek to provide as-needed environmental services for the 36,000-acre Yokohl Ranch development project in Tulare County, California. In addition to preparing the EIR for the proposed project, Dudek is preparing supporting technical reports, including the cultural resources technical report, biological resources technical report, California condor (*Gymnogyps californianus*)

management plan, wetlands mitigation plan, oak resources management plan, fuel management plan, and stewardship management plan.

Tehachapi Uplands MSHCP, Tejon Ranch Corporation, Kern County, California. Assisted in the preparation of the MSHCP, which included an assessment of impacts and development of mitigation measures for 27 Covered Species within more than 141,000 acres of Covered Lands. Coordinated with U.S. Fish and Wildlife Service in responding to public comments on the MSHCP and Draft EIS.

Philip Behrends, PhD – Senior Scientist, Specialist

Phil Behrends is a senior scientist/specialist with over 25 years' professional experience as a habitat conservation planner and wildlife biologist specializing in preparation of large-scale Habitat Conservation Plans (HCPs) and Natural Community Conservation Plans (NCCPs); resource management and monitoring programs; biological resources impact analyses; biology-related California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) documents; and special-status species surveys, including those for threatened and endangered small mammals.

Education

McMaster University, Ontario, Canada
PhD, Experimental Psychology/Animal Behavior, 1984

University of California, Riverside
BA, Psychology, 1977

Professional Affiliations

American Society of Mammalogists

HCPs and NCCPs entail developing large landscape-level open space plans designed for preservation and management of threatened, endangered, and other special-status species and their habitats, typically as required by Section 10(a)(1)(B) of the federal Endangered Species Act and/or the California Natural Community Conservation Planning Act of 1991, respectively. Dr. Behrends was the lead biologist and a primary author of the Southern Orange County Subregion HCP that was approved by the U.S. Fish and Wildlife Service (USFWS) in 2007. Dr. Behrends also was primary author of this HCP's Habitat Reserve Management and Monitoring Program, a required component of HCPs and NCCPs designed to ensure long-term persistence of species' populations and their habitat, covered by the plans using the most current scientific principles. More recently, Dr. Behrends was lead author on the wildlife component of the Newhall Ranch Resource Management and Development Plan (RMDP) approved in 2010. The RMDP biological impacts analyses involved analyzing the direct, indirect, and cumulative impacts of Newhall projects on biological resources, including special-status wildlife, typically as required by CEQA and/or NEPA. Dr. Behrends also has extensive experience conducting special-status species surveys typically involving the implementation of wildlife agency–adopted or wildlife agency–approved survey protocols on various project sites, such as live-trapping studies of the endangered Stephens' kangaroo rat (*Dipodomys stephensi*), San Bernardino kangaroo rat (*Dipodomys merriami parvus*), and Pacific pocket mouse (*Perognathus longimembris pacificus*). (Note: Dr. Behrends possessed state and federal permits through 2013 for conducting surveys for these species.)

Project Experience

Development

Environmental Services for the Newhall Ranch Resource Management and Development Plan (RMDP) and Spineflower Conservation Plan (SCP) Environmental Impact Statement (EIS)/Environmental Impact Report (EIR), Newhall Land and Farming Company, Santa Clarita, California. Serves as a wildlife biologist for implementation of the Newhall Ranch RMDP and SCP. The RMDP is a conservation, mitigation, and permitting plan for long-term management of sensitive biological resources within the 12,000-acre Newhall Ranch Specific Plan area in the Santa Clarita Valley in Northern Los Angeles County. The SCP is the conservation and management plan to protect the state-listed endangered San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*). Approval of the plans required a federal Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers (ACOE), and a Master Streambed Alteration Agreement under Section 1600 of the California Fish and Game Code and a Section 2081(b) Incidental Take Permit (ITP) from the California Department of Fish and Wildlife (CDFW; formerly the California Department of Fish and Game (CDFG)). Responsible for analyzing project impacts to more than 90 wildlife and plant species and developing mitigation measures to

reduce impacts to a level that is less than significant. Challenges to the RMDP/SCP included analyzing and mitigating complex direct, indirect, and cumulative effects to wildlife and plants in the context of both NEPA (ACOE) and CEQA (CDFW) requirements for various project infrastructure components, including bridges and culverts, roadway improvements, bank stabilization, drainage facilities, water quality control facilities, utilities, maintenance activities, recreation facilities, and temporary construction-related impacts. The joint EIS/EIR was approved by the ACOE and CDFG in 2010. The ITP for the San Fernando Valley spineflower was issued in December 2010, and the No-Jeopardy Biological Opinion for the RMDP was issued by the USFWS in June 2011. The RMDP/SCP is currently being implemented by Newhall Ranch. Current tasks include preparing and providing quality assurance for biological resources technical reports for various Newhall projects associated with RMDP/SCP implementation, including Homestead Village, Entrada South, Entrada North, as well as the Legacy project.

Arroyo Trabuco Golf Course, DMB San Juan Golf Associates LLC, City of Mission Viejo and County of Orange, California. Served as project manager for biological studies of the 230-acre Arroyo Trabuco Golf Course project partly located in the City of Mission Viejo and partly in unincorporated County of Orange. General biological studies and focused surveys for the listed coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), arroyo toad (*Anaxyrus californicus*), and thread-leaved brodiaea (*Brodiaea filifolia*) were conducted. The work culminated in preparation of a biological technical report in support of the CEQA EIR for the project and a Biological Assessment in support of a federal Endangered Species Act Section 7 consultation for the coastal California gnatcatcher, least Bell's vireo, and thread-leaved brodiaea, leading to a No-Jeopardy Biological Opinion from USFWS. In addition to the Section 7 consultation, permitting included an ACOE permit pursuant to Section 404 of the Clean Water Act, a Section 1603 Streambed Alteration Agreement for impacts to wetlands/waters of the United States and wetlands/waters of the State, and Section 2081.1 Consistency Determination from CDFW for impacts to the least Bell's vireo. A habitat restoration plan to mitigate for impacts to coastal sage scrub and valley needlegrass grassland, and a County of Orange–required Resources Management Plan were also prepared. The Arroyo Trabuco Golf Course was constructed and opened to the public in 2002.

Energy

As-Needed Environmental Services, Southern California Edison (SCE), Counties of Riverside, San Bernardino, and Orange, California. Served as project manager for as-needed environmental services to SCE (1999–2003). Supervised a group of environmental specialists to provide support to SCE with regard to biological resources assessment, biological monitoring, resource agency coordination, and regulatory review for various deteriorated pole, firewrap removal, and other miscellaneous infrastructure projects in Southern California, ranging from Orange and Los Angeles Counties in the west to the Colorado River in eastern Riverside and San Bernardino Counties. Resource issues addressed included threatened and endangered species, species regulated pursuant to Section 2081of the California Endangered Species Act administered by the CDFW, and pursuant to Sections 4, 7, 9, and 10 of the federal Endangered Species Act administered by the USFWS; and habitats, such as wetlands, regulated under Section 404 of the Clean Water Act administered by the ACOE, and under Sections 1600–1603 of the California Fish and Game Code administered by CDFW. More than 50 separate studies were conducted under this as-needed contract.

Desert Renewable Energy Conservation Plan (DRECP), California Energy Commission, Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San

Diego Counties, California. Serves as senior reviewer for wildlife resources, conservation biology, and resource monitoring and management issues addressed by the DRECP, which is a comprehensive conservation plan that provides for renewable energy (wind, solar, and thermal) and transmission development projects and for the conservation of sensitive species and ecosystems in California's Mojave and Colorado deserts, encompassing approximately 22.6 million acres in Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San Diego Counties. The purpose of the DRECP is to (1) advance federal and state natural resource conservation goals and other federal land management goals; (2) meet the requirements of the federal and state Endangered Species Acts, the NCCP Act, and the Federal Land Policy and Management Act in the Mojave Desert and Colorado/Sonoran Desert regions of Southern California; and (3) facilitate the timely and streamlined permitting of renewable energy projects. Responsible for preparing and/or reviewing species profiles for wildlife species proposed to be covered under the DRECP, including several state- and/or federally-listed species, such as desert tortoise (*Gopherus agassizii*), arroyo toad, Tehachapi slender salamander (*Batrachoseps stebbinsi*), Bell's vireo (*Vireo pusillus*), willow flycatcher (*Empidonax traillii*), Swainson's hawk (*Buteo swainsoni*), Yuma clapper rail (*Rallus longirostris yumanensis*), and Mohave ground squirrel (*Xerospermophilus mohavensis*), among others. The DRECP is currently in preparation and is expected to be released for public review in 2014.

Resource Management

Southern Orange County Subregion HCP, Rancho Mission Viejo, Orange County, California. Served as lead project biologist for the 44,600-acre HCP involving Rancho Mission Viejo (RMV), the County of Orange, and the Santa Margarita Water District (the "Participating Landowners") from 1993 to present. Baseline work included:

- Resource inventory and evaluation of the existing database for habitat and special-status plant and wildlife species
- Supervision of additional surveys for California gnatcatcher, cactus wren (*Campylorhynchus brunneicapillus*), least Bell's vireo, and arroyo toad
- Supervision of a native grassland inventory on Rancho Mission Viejo
- A wildlife corridor study at nine sites.

Dr. Behrends was instrumental in preparing and analyzing alternative Habitat Reserve designs to preserve the majority of the existing wildlife habitat and special-status wildlife and plant species; preparing the biological analyses, including identification of the 32 wildlife and plant species to be given regulatory coverage (i.e., Covered Species) under the HCP; and preparing a Reserve Management and Monitoring Program (RMP) for the Habitat Reserve system. The RMP addresses management and monitoring of major vegetation communities in the 32,000-acre Habitat Reserve, including coastal sage scrub, chaparral, grassland, wetland/riparian, and woodlands and associated covered species and focal management species. The RMP's focus is to apply passive, active, and experimental management to sustain and enhance long-term net habitat value in the habitat reserve. Key RMP components include species and habitat monitoring and management, habitat enhancement and restoration, grazing management, and fire management.

The HCP effort culminated in the issuance of a Section 10(a)(1)(B) permit by the USFWS in January 2007 under the federal Endangered Species Act for 32 Covered Species, including the federally listed coastal California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, arroyo toad, Riverside fairy shrimp (*Streptocephalus woottoni*), San Diego fairy shrimp (*Branchinecta sandiegonensis*), thread-leaved brodiaea, and 25 non-listed wildlife and plant species. The HCP work also provided the foundation for completion of a Master Streambed Alteration Agreement, pursuant to Section 1600 of the California Fish and Game Code, in 2009. A significant challenge of

this project was preparation of a Habitat Reserve alternative that was mutually acceptable to RMV (the major landowner), the USFWS, and environmental organizations, such as the Endangered Habitats League, National Resources Defense Council, Audubon Society, and Sierra Club. RMV ultimately negotiated a binding settlement with the environmental organizations based on an agreed-upon reserve design prior to preparation of the final HCP.

The HCP is currently in the implementation phase. Drafted the Initial Management Action Plan (IMAP) in collaboration with the RMV Habitat Reserve manager and a three-person science panel in October 2009. The IMAP guided monitoring and management activities in the Habitat Reserve from 2009 through 2013. Most recently helped draft the 2014–2019 Management Action Plan, which is currently under review by the Science Panel and the RMV Habitat Reserve manager. Continues to work closely with the RMV Habitat Reserve manager to implement various aspects of the HCP, including HCP requirements related to approved development activities.

Western Riverside Multiple Species Habitat Conservation Plan (MSHCP), County of Riverside, California. Served as taxonomic group leader for mammals for the MSHCP, which was completed in 2002. Prepared detailed species accounts and conservation analyses for several mammals identified for state and federal regulatory coverage under the state and federal Endangered Species Acts, including Aguanga kangaroo rat (*Dipodomys merriami collinus*), bobcat (*Lynx rufus*), brush rabbit (*Sylvilagus bachmani*), coyote (*Canis latrans*), Dulzura kangaroo rat (*Dipodomys simulans*), long-tailed weasel (*Mustela frenata*), Los Angeles pocket mouse (Perognathus longimembris brevinasus), mountain lion (*Puma concolor*), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), San Bernardino flying squirrel (*Glaucomys sabrinus californicus*), San Bernardino kangaroo rat, San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), San Diego desert woodrat (*Neotoma lepida intermedia*), and Stephens' kangaroo rat. Also prepared background information regarding reserve design and adaptive management issues.

Water/Wastewater

As-Needed Environmental Services, Metropolitan Water District of Southern California and Eastern Municipal Water District, Counties of Riverside, Orange, and Los Angeles, California. Served as project manager for as-needed environmental services to the Metropolitan Water District of Southern California (1997–2002) and Eastern Municipal Water District in Western Riverside County (1992–2003). Supervised a group of environmental specialists providing support to these agencies with regard to biological resources assessment, biological monitoring, resource agency coordination, permit preparation and processing, and regulatory review related to various projects, including existing and planned pipelines, water storage tanks, and major facilities, such as treatment plants and reservoirs. Resource issues addressed included threatened and endangered species regulated under the state pursuant to Section 2081 of the California Endangered Species Act administered by CDFW and pursuant to Sections 4, 7, 9, and 10 of the federal Endangered Species Act administered by USFWS; and habitats, such as wetlands, regulated under Section 404 of the Clean Water Act administered by the ACOE, and under Sections 1600–1603 of the California Fish and Game Code administered by CDFW. More than 50 separate studies were conducted under these as-needed contracts between 1992 and 2003. Studies included several live-trapping studies for the federally listed endangered and state-listed threatened Stephens' kangaroo rat and federally listed endangered San Bernardino kangaroo rat for the Eastern Municipal Water District, including the Stagecoach Road Pipeline Project, Pigeon Pass Road Pipeline Project, Wells No. 12 and 14 Intertie Project, Well No. 5 Relocation Project, San Jacinto Seasonal Storage Project, Homeland Tank Site Project, and the Little Valley Reservoir Project.

Dave Compton – Biologist

Dave Compton is a wildlife biologist with 15 years' experience working in a variety of California environments. He has provided natural resources planning expertise through habitat assessments, constraints analyses, impact analyses, managing projects related to biological resources, agency coordination, permitting services, and designing and leading biological surveys. He has extensive experience with the avian life of California and has designed and conducted bird surveys in a variety of habitats in the state. Mr. Compton has led a variety of field efforts and contributed to various California Environmental Quality Act (CEQA) and California Coastal Act documents and reports. He holds a U.S. Fish and Wildlife Service (USFWS) recovery permit and a California Department of Fish and Wildlife (CDFW) scientific collecting permit.

Mr. Compton has surveyed for various rare and listed wildlife species in southern and central California. He is authorized by USFWS and CDFW to conduct presence-absence surveys for the federally and state endangered southwestern willow flycatcher (*Empidonax traillii extimus*). He is certified through special training by the Bureau of Land Management and CDFW to conduct protocol tracking surveys for flat-tailed horned lizard (*Phrynosoma mcallii*), and is a Level II blunt-nosed leopard lizard (*Gambelia sila*) surveyor, permitting him to lead a crew during surveys for the federally and state endangered and state fully protected species. He has conducted focused protocol surveys at various locations in the San Joaquin Valley and Antelope Valley for the State threatened Swainson's hawk (*Buteo swainsoni*), and in several locations in Santa Barbara, Ventura, Los Angeles, and Orange Counties for the least Bell's vireo (*Vireo bellii pusillus*). He has also led or participated in focused surveys for white-tailed kite (*Elanus leucurus*), golden eagle (*Aquila chrysaetos*), burrowing owl (*Athene cunicularia*), Belding's savannah sparrow (*Passerculus sandwichensis beldingi*). California gnatcatcher (*Polioptila californica*), California red-legged frog (*Rana draytonii*), desert tortoise (*Gopherus agassizii*), San Joaquin kit fox (*Vulpes macrotis mutica*), and American badger (*Taxidea taxus*).

Education

Marquette University
MA, U.S. History, 1984

Christian Brothers College,
BA, History, 1982

Certifications

Southwestern willow flycatcher USFWS 10(a) Permit TE101148-2

Scientific Collecting Permit SC-7918

Flat-tailed horned lizard tracking surveys (certified by BLM/CDFW)

Professional Affiliations

American Ornithologists' Union

Raptor Research Foundation

Wildlife Society

Western Field Ornithologists

Project Experience

Development

Newhall Ranch Resource Management and Development Plan, Newhall Land and Farming, Los Angeles County, California. From the spring 2012 through fall 2013, led several wildlife surveys and prepared general wildlife survey reports for several proposed developments. Organized small teams to survey for grasshopper sparrows (*Ammodramus savannarum*), burrowing owls, and American badgers. Prepared general wildlife reports for six separate Newhall Ranch developments, reporting the results from the above surveys and incorporating information from reports on other wildlife surveys conducted for the project in 2012 and 2013. Current tasks include preparing biological resources technical reports for various Newhall projects associated with Resource Management and Development Plan (RMDP) and Spineflower Conservation Plan (SCP) implementation, including Homestead Village, Entrada South, Entrada North, and Legacy.

Newport Banning Ranch, Brooks Street, Newport Banning Ranch, LLC, Newport Beach, California. From the spring 2012 to spring 2013, participated in biological surveys and reporting for an approximately 400-acre site and existing oil facility proposed for residential

development in coastal Orange County, as part of the Coastal Development Permit process. Participated in raptor surveys and vegetation mapping and prepared a report on the raptor surveys. Also helped draft a proposed operations and maintenance plan for the oil facility operations, providing information relevant to maintaining habitat for coastal California gnatcatchers, a bird species listed as federally threatened, participated in spring 2013 surveys for the California gnatcatcher, and provided an analysis of gnatcatcher use of the site based on 20 years of surveys.

Tejon Ranch Commercial Center, Tejon Ranch Company, Kern County, California. Performed pre-construction and construction period tasks for several projects to ensure construction activities complied with conditions of all biological resource agency permits. Conducted pre-construction surveys for special-status species, presented information on biological issues and mitigation measures to construction personnel during pre-construction meetings, and monitored all project activities potentially impacting biological resources.

Paradiso del Mare Ranch Estates, CPH Dos Pueblos Associates, Southern Santa Barbara County, California. Assisted in biological surveys of an approximately 140-acre site in the coastal zone in the spring and summer 2011 and 2013, co-authored the technical report on surveys, and provided support during the CEQA process. Participated in botanical surveys, vegetation mapping, delineation of on-site wetlands, white-tailed kite nesting season surveys, and California red-legged frog surveys. Helped prepare a report on existing conditions and survey results. Also helped prepare a 30-page technical memo on occurrences and habitat value on the site for the state fully protected white-tailed kite, a species that receives special protection under the county's local coastal program, and provided analysis of potential impacts the on a harbor seal (*Phoca vitulina*) rookery, protected under the Marine Mammal Protection Act.

Ventura Bluffs and Summit View Homes, West Coast Housing Partners, Ventura and Lompoc, California. Provided due-diligence-level surveys and reports for two small potential housing developments in August 2011. The Ventura Bluffs project involved an assessment of raptor issues. The Summit View project involved a general biological survey for assessing potential constraints from the presence of native or sensitive vegetation communities, rare plants, special-status wildlife, wetlands, or jurisdictional streams. Provided comments on the Environmental Impact Report biology section for the Summit View Homes project.

Education

Outdoor Art Workshop Expansion, Santa Barbara City College, Santa Barbara, California. Conducted raptor surveys and a habitat assessment to meet California Coastal Commission requests regarding an unpermitted development within designated environmentally sensitive habitat (ESH). Tasks involved assessing present and former habitat conditions through a combination of field surveys and an examination of historical documentation of the site, including aerial photos, earlier versions of the college long-range development plan (LRDP), and plans and monitoring reports of previous restoration of the ESH. The goals of the effort were to obtain a permit for the development after the fact, determine a plan for mitigating any impacts from the development, and exclude a eucalyptus row from the oak woodland ESH that had been included inappropriately at the time of development.

Long-Range Development Plan, University of California, Santa Barbara, Santa Barbara, California. In the spring/summer 2012, the winter 2012-2013, and spring/summer 2013, conducted raptor and nesting bird surveys for several sites proposed for development under the university's long-range development plan (LRDP), to fulfill CCC requirements. Produced survey reports for three rounds of surveys, a series of raptor and nesting bird surveys for nine sites in 2012 and 2013, and wintering raptor surveys for three of these sites during the winter 2012-2013.

Southwestern Willow Flycatcher Contract, University of California, Santa Barbara (UCSB), Vandenberg Air Force Base and Santa Ynez River, Santa Barbara County, California. As part of a project conducted by UCSB, performed protocol surveys on base for southwestern willow flycatcher, federally listed as endangered, in 1998, 2005, 2006, and 2007. In 1998, also performed least Bell's vireo surveys on the Santa Ynez River between the base and Buellton, California. As part of the same project, participated in monitoring of riparian systems on base by conducting point count surveys in 2003, 2004, 2005, and 2008.

Energy

Western Kern County project, California. Participated in biological surveys and production of a biological technical report. As a Level II blunt-nosed leopard lizard (BNNL) surveyor, led a survey crew through all 12 adult season BNLL surveys; also participated in focused protocol surveys for San Joaquin kit fox and other burrowing animals. Wrote portions of a biological technical document describing survey results for species including Nelson's antelope squirrel (*Ammospermophilus nelsoni*), San Joaquin kit fox (*Vulpes macrotis mutica*), and giant kangaroo rat (*Dipodomys ingens*).

Vista de Santa Lucia Wind Energy Generation Project, Vista de Santa Lucia Wine Center, LLC, Gonzales, California. In May 2012, surveyed a 30-acre site and surrounding areas to determine potential biological issues for a proposed two-turbine wind development within existing agriculture lands adjacent to the City of Gonzales. Co-authored a biological report on the resources associated with the site and surrounding area, focusing birds and bats, and participated in a planning commission meeting in support of the client.

San Joaquin Valley Solar Projects, Pacific Valley LLC, Madera, Western Fresno and Kern Counties, California. From fall 2009 to winter 2012-2013, performed biological services for potential solar projects from the due diligence phase into the conditional use permit application process. Participated in initial evaluation of potential biological constraints to development at 12 sites averaging approximately 160 acres, surveying most of the sites and authoring or co-authoring reports on survey results for many of them. Performed and reported on focused surveys during the conditional use permit application process for six of these sites, five of which were in Fresno County and one of which was in Madera County. Led protocol Swainson's hawk survey efforts for five of the six projects, participated in general biological surveys, and co-authored reports on the biological resources of five of the six sites. Evaluated the potential for occurrence of special-status plant species, the habitat value for special-status wildlife species, and potential impacts to biological resources, as well as proposed mitigation measures to address potential impacts. During the permitting process, identified suitable habitat within 10 miles of several of the Fresno County sites, including driving surveys, aerial photograph analysis, and working with geographical information system (GIS) technicians to create figures that were used in the Swainson's hawk impact analysis. This species was the major biological issue at most sites, although San Joaquin kit fox and several bird species designated as California Species of Concern were also important in the analysis.

Antelope Valley Solar Ranch One, First Solar (formerly NextLight), Antelope Valley, California. Participated in various phases of biological field work and permitting for a 2,000-acre solar photovoltaic site in Los Angeles County, from late 2008 to early 2011. During the initial stage of the project, designed and conducted wintering bird surveys, conducted an inventory of Joshua trees (*Yucca brevifolia*) on the project site, and contributed to the biological constraints analysis required by Los Angeles County's Sensitive Ecological Areas Technical Advisory Committee. In the second phase of biological field investigations and reporting, designed and conducted nesting bird surveys, participated in Phase II burrowing owl surveys (burrow and owl search), led the Phase III surveys (monitoring of owls),

participated in botanical surveys and in mapping of Joshua trees along the transmission line route, and contributed extensively to the biota report, including analysis of impacts to birds.

After completion of biological field investigations, responded to several rounds of comments on the biological section of the environmental impact report (EIR) and edited several other EIR sections. Also wrote the initial draft of the burrowing owl management plan to be implemented during site development. The plan included designation of suitable receptor sites for relocated owls, described guidelines for enhancing burrowing owl habitat in these areas, and described the process for passively relocating any owls found in the project footprint to the receptor sites.

In the final phase before development, participated in pre-construction biological surveys and monitoring. Conducted cover-board surveys for Blainville's horned lizards (*Phrynosoma blainvillii*), monitored geotechnical investigations and well-boring, and led up to four biologists in an intensive effort to clear the site in February 2011 for burrowing owls and nesting birds prior to geotechnical investigation across the site.

Mojave Solar Project, Fotowatio Renewable Ventures, Lancaster, California. Participated in field surveys at a 320-acre site proposed for solar photovoltaic development. In 2010 and 2011, participated in a biological due diligence survey, co-authored the due diligence report, and participated in several focused surveys. Designed and conducted wintering bird point count surveys, led burrowing owl Phase II and III surveys, participated in botanical surveys, and planned and led protocol Swainson's hawk surveys covering suitable habitat within a 5-mile radius around the site.

Ruby Solar Project, Ruby Solar LLC (formerly Pacific Valley LLC), Antelope Valley, California. Participated in nearly all biological field investigations and contributed to the biological technical report for a 160-acre proposed solar photovoltaic development. Designed and led breeding bird surveys, led general wildlife and burrowing owl Phase II surveys, and planned and led protocol Swainson's hawk surveys. The latter covered all suitable habitat within 5 miles of the project boundaries. Also participated in botanical surveys and a Joshua tree inventory. Authored several sections of the biological technical report, including much of the impacts analysis, and finalized the report in December 2010.

General Wildlife and Blunt-Nosed Leopard Lizard Surveys, Hydrogen Energy California, British Petroleum, near Bakersfield, California. In December 2008, performed reconnaissance surveys for all wildlife, with special attention to evidence of the presence of burrowing owls and San Joaquin kit foxes. From July to September 2010, participated in general wildlife surveys of potential gas line routes and participated in protocol surveys for juvenile blunt-nosed leopard lizards, federally and state listed as endangered and considered fully protected by the State of California.

Biological Constraints Analysis, WDG Partners, Los Angeles and Kern Counties, California. In fall 2009, produced reports identifying potential biological constraints for solar power plant development at several sites of approximately 160 acres.

California Valley Solar Ranch, SunPower, Carrizo Plain, San Luis Obispo County, California. Participated in a variety of biological surveys covering a 3,000-acre survey area and 2,000-acre project footprint and contributed to documentation of on-site resources and analysis of project impacts. During field survey efforts conducted in 2009, designed and conducted wintering bird point count surveys, participated in vegetation surveys, participated in protocol nighttime spotlighting surveys for the endangered San Joaquin kit fox (seeing approximately nine foxes per

survey), and participated in 25 days of protocol surveys for the blunt-nosed leopard lizard. Also helped compile data for on-site biological resources, wrote a report on the wintering bird surveys, wrote the section on birds (including impact analysis) for a biological technical report, and contributed to several other chapters of the report.

Resource Management

Santa Clara River Point Counts and General Riparian Bird Surveys, USFWS, Ventura and Los Angeles Counties, California. Performed point counts and walking transect surveys on the Santa Clara River as part of a group performing least Bell's vireo and other avian surveys from June to July 2000.

North San Luis Obispo County Habitat Conservation Plan–Natural Community Conservation Plan (HCP–NCCP), California. From December 2011 to November 2012, participated in a variety of phases in preparation of the first draft of the plan, including identification of covered species, preparation of wildlife species profiles, writing portions of the existing conditions section, and identifying the conservation factors for the covered bird species.

Lake Casitas Natural Resources Management Plan, Bureau of Reclamation, Ventura County, California. Helped conduct surveys of water-dependent birds, riparian breeding birds, and birds of prey from January 2005 to November 2006. The project sought to assess natural resources around the lake and develop a management plan based on the results.

Santa Ynez River Riparian Bird Surveys, Bureau of Reclamation, Santa Barbara County, California. Conducted riparian bird surveys and habitat assessment on a Bureau of Reclamation project. Compiled a report on the surveys that also assessed habitat for the federally endangered southwestern willow flycatcher.

Cachuma Lake Natural Resources Management Plan, Bureau of Reclamation, Santa Barbara County, California. Designed surveys of water-dependent birds and riparian breeding birds, directed a team of participants in these surveys from 2001 to 2003, and authored the section on the lake's avian life for the management plan.

Riparian Breeding Bird Surveys, U.S. Forest Service, Southern California. Performed point count surveys as part of a long-term project monitoring riparian breeding birds in the Cleveland, San Bernardino, Angeles, and Los Padres National Forests from May to June 1996.

Transportation

Goleta Slough Emergency Siphoning, Santa Barbara Municipal Airport, Goleta, California. Conducted an initial assessment of increased bird strike hazards related to the blockage of the Goleta Slough mouth and flooding of the Slough in April 2013 and conducted daily monitoring of bird activity during the siphoning of the Slough in May 2013. Blockage of the Slough mouth was formerly performed mechanically, but permits for this activity expired, allowing the mouth to remain blocked for an extended period and resulting in high numbers of birds in the Slough that present an elevated hazard for aircraft.

Firestone Road Drainage Improvements Project, Santa Barbara Municipal Airport, Goleta, California. Conducted biological surveys and prepared a report on biological resources in relation to a project proposed to install improvements within an earthen drain. Conducted a wetland delineation, vegetation mapping, and special-status species habitat assessment, then prepared a report that included a jurisdictional determination and assessment of biological resources and impacts of the proposed project.

Santa Barbara Airport Master Plan Update, Santa Barbara Municipal Airport, Goleta, California. From January to April 2012, assembled survey results and extensive historical information on the plant and wildlife resources of the Santa Barbara Airport and prepared a report detailing special-status and common species occurring at Goleta Slough and the airport, as well as habitat occupied by special-status species. Also participated in all field surveys to update the vegetation and wetland mapping for the entire airport.

Carpinteria Rincon Trail, City of Carpinteria, California. Performed a general biological survey of the site of an approximately 5,000-foot-long proposed bicycle and walking trail from the City of Carpinteria to Rincon County Park. Also wrote the biological resources section for the initial study and mitigated negative declaration for the project. Tasks included mapping vegetation communities, recording all plant and wildlife species observed along the route, assessing habitat for special-status plant and wildlife species, noting the locations of any protected trees, assessing impacts to all resources, and proposing mitigation measures, The analysis addressed CEQA considerations, as well as the local coastal programs of the City of Carpinteria and County of Santa Barbara.

General Wildlife Surveys and Habitat Assessment, High-Speed Rail, California High-Speed Rail Authority, San Joaquin Valley, California. In March 2010, participated in surveys of the proposed high-speed rail line between Fresno and Bakersfield, surveying and assessing habitat for special-status wildlife species. Species of particular concern included Swainson's hawk, California red-legged frog, and various burrowing wildlife species of the San Joaquin Valley.

Belding's Savannah Sparrow Surveys, Santa Barbara Municipal Airport, Goleta, California. Participated in surveys at Goleta Slough at the Santa Barbara Municipal Airport for Belding's savannah sparrow, a state endangered subspecies, in May 2001, May 2006, and May 2009. These surveys were conducted as part of various projects, including statewide monitoring of the species' population and baseline surveys for several airport projects.

Santa Barbara Airport Tidal Circulation Project, Santa Barbara Municipal Airport, Goleta, California. Participated in a project at Goleta Slough at the Santa Barbara Municipal Airport, assessing potential bird-strike impacts resulting from restoration of tidal circulation in parts of the estuary isolated by berms and blocked culverts. Designed and conducted bird surveys for baseline and experimental phase surveys from March 2001 to November 2008. Tidal restoration was proposed as mitigation for several projects occurring on airport property, and analysis of potential bird-strike issues was initiated to satisfy concerns of the Federal Aviation Administration.

Water/Wastewater

Solvang Wastewater Treatment Plant Reinforced Vegetated Slope Protection, Solvang, California. Project manager for biology from initial surveys through implementation for a project to reinforce City of Solvang critical facilities against long-term erosion effects through encouraging natural processes to rebuild and re-vegetate the adjacent Santa Ynez River banks. Managed field surveys and preparation of a biological technical report. The field surveys and reporting included conducting a wetland delineation and preparing the jurisdictional determination that provided the basis for permitting. Also managed supplemental focused surveys in support of the permitting process (conducted surveys for federally endangered southwestern willow flycatcher and least Bell's vireo); coordinated with agencies while assisting in the Clean Water Act Sections 401 and 404, and Fish and Game Code Section 1600 permitting processes; oversaw preparation of a Habitat Mitigation and Monitoring Plan; managed monitoring of project installation; and currently oversee restoration monitoring.

Borchard Road-U.S. 101 Drainage Project, City of Thousand Oaks, Thousand Oaks, California. Performed pre-construction surveys and construction monitoring for a project providing improvements to a drainage ditch within the U.S. 101 right-of-way. Coordinated with Caltrans to implement conditions of the Streambed Alteration Agreement.

Morro Bay-Cayucos Wastewater Treatment Plant Upgrade, City of Morro Bay, California. In summer and fall 2011, provided analysis of potential biological constraints during the evaluation of alternatives for the upgrade of the treatment plant. During a rough-screening of 11 sites, provided a desktop analysis of potential special-status species occurrences related to each site. During the fine-screening process, which focused on four sites that remained in consideration, visited the sites, recorded information on biological resources, and wrote a report on the biological constraints associated with each of them, including special-status plant and wildlife species and their habitats, sensitive natural communities, other native vegetation communities, and jurisdictional resources. The analysis focused on resources highlighted in the County of San Luis Obispo and City of Morro Bay Local Coastal Programs.

RELEVANT TRAINING

- Southwestern Willow Flycatcher Workshop, South Fork Kern River Preserve, Weldon, California, May 1998, May 2005
- Flat-tailed horned lizard certification training, El Centro, California, May 2010
- Basic CEQA Training, October 2011
- Swainson's Hawks in California's Central Valley, Sacramento, California, April 2012
- Basic Wetland Delineation, Wetland Training Institute, San Diego, California, August 2012
- Blunt-nosed Leopard Lizard Workshop, Wildlife Society, San Joaquin Valley Chapter, Bakersfield, California, May 2013
- California Red-Legged Frog (CRLF) Training Workshop at the Big Gun Mine Mitigation Bank at Michigan Bluff, Placer County, California, August 2013. Lecture on general ecology, life history, and identification, plus survey including visual encounter for all life stages.

Kathleen Dayton – Biologist

Kathleen Dayton is a biologist with over 6 years' professional experience in general biological resource surveys, vegetation mapping, rare plant surveys, various wildlife surveys, native grasslands, wetland delineations, data collection and analysis, biological technical report preparation, wetland permitting, and endangered species permitting.

Ms. Dayton has excellent field skills and leads teams of biologists for vegetation mapping and rare plant surveys. She has exceptionally strong technical writing skills and is an effective communicator.

Education

University of California, San Diego
BS, Environmental Systems: Ecology, Behavior, and Evolution, 2007

Certifications

CDFG Rare, Threatened, and Endangered Plant Voucher Collection Permit No. 2081(a)-12-04-V – exp. 12/31/2014

Professional Affiliations

California Native Plant Society

Southern California Botanists

Project Experience

Development

Newhall Ranch Resource Management and Development Plan, Newhall Land and Farming Inc., Los Angeles and Ventura Counties, California. In 2012, acted as field lead for focused special-status plant surveys, vegetation mapping updates, and habitat assessments for San Emigdio Blue Butterfly (*Plebejus emigdionis*) for Mission Village, Advanced Mitigation Sites, Legacy, Homestead South, Entrada North, and Entrada South. This was an effort that involved scheduling approximately 200 person days of field work, coordinating with sub-consultants, preparing of an appropriate field packet, developing a kerata form, training inexperienced staff in the field, coordinating with multiple geographic information system (GIS) staff, and writing separate reports for each project site within time constraints. In 2013, organized similar field surveys for a portion of Homestead South, Advanced Mitigation Sites, and Potrero Village, and wrote or updated reports.

Santa Barbara Ranch, Santa Barbara County, California. Assisted with a native grassland assessment that involved recording quantitative data along transects. Analyzed data and presented findings in a report.

Dos Pueblos Naples Property, Santa Barbara County, California. Assisted in preparation of a biologist constraints report including an assessment of native grasslands that synthesized quantitative transect data to determine compliance with different resource agency criteria.

Pacific Coast Homes, City of Fullerton, California. Reviewed and provided responses to comments on revised versions of the public environmental impact report (EIR). Also conducted vegetation mapping in the field and wrote the vegetation descriptions to be included in the report documenting survey results.

Ferber Ranch (Trabuco Canyon), The Planning Center, Orange County, California. Assisted with special-status plant species surveys on a proposed development project. Involved hiking in steep, rough terrain and collecting standardized data on field maps.

The Ranch at Yaqui Pass Viking Ranch Project, Giachino Development Company, San Diego County, California. Assisted with special-status plant species surveys on a proposed development project in the desert region of San Diego County.

University Villages, Otay Ranch, San Diego County, California. Assisted with vegetation mapping on areas proposed to be exchanges between development and preserve. Mapping was

conducted in accordance with Holland's *Preliminary Descriptions of the Terrestrial Natural Communities of California* (1986). Conducted surveys for Otay tarplant (*Deinandra conjugens*) and other special-status species, and drafted a report that included the methods, results, and impact analysis for different resources over several years of surveying.

Copley Press 25 Acres, City of San Diego Development Services, San Diego County, California. In 2011, Ms. Dayton provided biological resources monitoring for geotechnical activities conducted on a proposed development site to ensure avoidance and minimization of impacts to sensitive biological resources to the maximum extent feasible and to ensure specific measures for the protection of sensitive habitats. Monitoring included holding an environmental awareness meeting with the crew prior to work activities, photo documentation, and completion of a site observation report (SOR).

Otay Ranch Village 13 Resort Site, San Diego County, California. In 2009 and 2010, Ms. Dayton monitored geotechnical studies to limit impacts to biological resources by determining the least impactive access route to a geotechnical boring/trenching location in areas with native vegetation, jurisdictional waterways, and/or Quino checkerspot (*Euphydryas editha quino*) host plant. Project lasted two seasons for approximately 2 weeks each time.

Tejon Mountain Village Project, Tejon Ranch Company, Kern County, California. Compiled data used to prepare the biological technical report, researched background information on different vegetation communities and special-status species, and wrote portions of the biological technical report, draft EIR, framework resource management plan, and 2081 permit for state-listed species.

Tejon Industrial Complex, Tejon Ranch Company, Kern County, California. Prepared a proposal outlining the tasks to be completed for a resource management and monitoring plan (RMMP) and property analysis record (PAR) for proposed mitigation sites. Assisted in preparing the RMMP and PAR and collected relevant biological reconnaissance data in the field.

Roselle Street Project Site, CLL-Roselle LLC, San Diego, California. Assisted in preparation of a biological resources letter report that addressed the development of a storage yard on a site with sensitive wetland habitat.

International Traders Center Biological Services, International Traders Center, San Diego, California. Assisted in preparation of a biological resources letter report for the maintenance of an enterprise that contains sensitive wetland habitats. The report included recommendations to improve the quality of biological resources on site, including wetlands restoration and enhancement.

Levie Tentative Parcel Map, Laret Engineering, Rancho Santa Fe, California. Assisted with preparation of the biological technical report for a proposed residential development in an area considered sensitive under San Diego's Multiple Habitat Conservation Plan.

Education

Eastside Center and Westside Center Project, Victor Valley Community College District, San Bernardino County, California. Assisted in conducting special-status plant species surveys at both the Eastside Center and Westside Center project sites in the Mojave Desert.

Energy

Tehachapi Renewable Transmission Project, Southern California Edison (SCE), Los Angeles and San Bernardino Counties, California. Served as biological monitor during 2011

for construction-related activities for the Tehachapi Renewable Transmission Project. Attended construction monitoring workshop and Worker Environmental Awareness Program/safety training. Construction monitoring activities included morning and evening sweeps of the construction areas and monitoring crews for compliance during tower setup activities. Other activities include establishing environmentally sensitive areas for active nests, and monitoring and updating active nests. Reported new nests observed. FRED reports were completed each day to discuss daily monitoring activities and nest updates.

Mohave Generating Station, SCE, Laughlin, Clark County, Nevada. In 2009, conducted a general biological resources assessment of the approximately 2,500-acre project site that included the use of wildlife cameras and Anabat equipment for detection of bat species. Desert tortoise (*Gopherus agassizii*) was a species of concern for this project, although no burrows or individuals were detected during the assessment.

Hazard Tree Removal Project, SCE, San Bernardino and San Jacinto Mountains, San Bernardino County, California. Conducted nocturnal and diurnal surveys for arroyo toad (*Bufo californicus*), California red-legged frog (*Rana draytonii*), and mountain yellow-legged frog (*Rana muscosa*) in selected drainages within the San Bernardino Mountains and San Jacinto. The surveys support implementation of a bark beetle tree removal project along existing power lines within San Bernardino County. The surveys were conducted to ensure avoidance of impacts to special-status amphibian species and their habitats. Surveys were negative.

Proposed Grid Reliability Maintenance Project, Intake 16-Kilovolt (kV) Cutover, SCE, Kern and Tulare Counties, California. Prepared for and conducted botanical surveys along a transmission route requiring maintenance.

Tehachapi Renewable Transmission Project, SCE, Southern California. Performed focused surveys for special-status plant species and conducted vegetation mapping and tree inventory. This included familiarity with the local flora and use of specific field mapping and rare plant forms, as well as use of a YUMA Geographic Positioning System.

Deteriorated Pole Replacement Project, SCE, San Bernardino County, California. Independently conducted a special-status plant species survey at Newberry Springs on lands administered by the Bureau of Land Management (BLM). Involved conducting a literature review and revising the report based on findings.

Doble Transmission Line, SCE, San Bernardino County, California. Assisted with special-status plant species surveys along an existing transmission line to provide data in cases where emergency work that impacted special-status plant species would need to be conducted. Involved working in sensitive habitat areas, including pebble plains and areas with carbonate soils.

Devers–Palo Verde No. 2 500 kV Transmission Line, SCE, Riverside County, California. Conducted focused burrowing owl (*Athene cunicularia*) surveys that included a habitat assessment and resulted in visual observation of the species and active burrows. Maintained a database of collected data, reviewed data collected, and prepared various reports that discussed the results of surveys.

Devers–Palo Verde No. 2 500-kilovolt (kV) Transmission Line, SCE, Riverside County, California. In 2009, conducted jurisdictional delineations in the desert region of Riverside County. Maintained a database of vegetation data collected, reviewed data collected, and prepared various reports that discussed the results of surveys.

Devers–Palo Verde No. 2 500 kV Transmission Line, SCE, Riverside County, California. In 2008, assisted in field surveys for desert tortoise, Palm Springs round-tailed ground squirrel (*Spermophilus tereticaudus chlorus*), and Coachella Valley fringe-toed lizard (*Uma inornata*). Although surveys for these species were negative, future surveys on this project resulted in incidental detection of desert tortoise. Additionally, assisted in field surveys for special-status plants (2008 and 2009), burrowing owl (2008), and bats (2008).

Gildred Solar Major Use Permit Project, J. Whalen Associates Inc., San Diego, California. Conducted a jurisdictional delineation for this desert project for the creation of a 369-acre solar energy system and prepared a draft biological resources report detailing the methods and results of this and other surveys conducted on site as well as evaluating the potential for special-status species to occur on site.

Desert Renewable Energy Conservation Plan (DRECP), California Energy Commission and Aspen Environmental Group, Southern California. Contributed to development of a plan in which renewable energy and transmission development projects in California's deserts will conserve natural communities and species pursuant to the California Natural Community Conservation Planning Act and the federal Endangered Species Act. Wrote sections of the baseline biology report, developed a species matrix used to determine species coverage, researched species information to write detailed species profiles, and reviewed species habitat models that were created in a geographic information system.

Hazard Tree Removal Project, SCE, Southern California. From 2008 to 2011, Ms. Dayton provided monitoring for the cutting of hazard trees to protect biological resources in the surrounding areas for this project. Biological resources include sensitive vegetation communities, as well as habitat for special-status wildlife and plant species.

Resource Management

Spineflower Conservation Plan, Newhall Land and Farming Company, Los Angeles County, California. Researched the potential threats to the San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*) and wrote sections of the adaptive management plan designed to protect this special-status species. In 2011 to 2013, organized and assisted with plant surveys to document the extent and conditions of spineflower populations, and prepared a report describing the methods and results of these surveys.

Middle Canyon Spring Habitat Management Plan, Newhall Land and Farming Company, Los Angeles County, California. Organized monitoring field efforts for Middle Canyon Spring, and assisted in preparation of a habitat management plan describing how the spring will be monitored and managed to enable the recently described spring snail (*Pyrgulopsis castaicensis*) and Newhall sunflower (*Helianthus inexpectatus*) to persist in the spring.

North San Luis Obispo Habitat Conservation Plan (HCP)/Natural Community Conservation Plan (NCCP), San Luis Obispo County, California. Assisted in the planning stages of the development of the HCP/NCCP.

Malibu Campgrounds, County of Los Angeles, California. Assisted with special-status plant species surveys for the development of an interconnected system of trails.

Simon and Gower Preserves, County of San Diego, California. Assisted with special-status plant species surveys on a preserve in San Diego County. Also assisted in synthesizing the data collected and preparing a biological resources report.

Otay Preserve, County of San Diego, California. Assisted with special-status plant species surveys on a preserve in San Diego County. Involved hiking in steep, rough terrain and collecting standardized data on field maps. Prepared a draft of the existing conditions report.

Foothill Trabuco Specific Plan, Property Owners Consortium, Orange County, California. Compiled a list of species proposed for coverage under a habitat conservation plan as well as the data contributing to the analysis of the selection criteria.

Initial Management Action Plan, Rancho Mission Viejo Land Trust, Orange County, California. Performed vegetation pilot-study monitoring within riparian/wetland, oak woodlands, and coastal sage scrub habitats following an established protocol involving various methods and quantitative assessments of vegetation characteristics. Assisted in developing a kerata form, analyzing the data, and preparing a report.

Nelson-Sloan Quarry Reclamation Project, City of San Diego, San Diego County. Performed focused surveys for special-status plant species and coordinated vegetation mapping and a jurisdictional delineation. The methods and results of these studies were then incorporated into a biological technical report.

Del Dios, Escondido Creek, and San Luis Rey Preserves, County of San Diego, California. Coordinated and assisted with special-status plant species surveys on three preserves in San Diego County. Also assisted in organizing the data collected and preparing existing conditions biological reports that included all surveys conducted.

Transportation

Mid-Coast Corridor Transit Project, San Diego Association of Governments and California Department of Transportation, San Diego County, California. Assisted in preparation of a conceptual alternatives biological resources screening analysis, which involved synthesizing information gathered from various databases. In addition, conducted special-status plant species surveys and a jurisdictional delineation for portions of the project area.

Mid-Coast Corridor Transit Project, San Diego Association of Governments and California Department of Transportation, San Diego County, California. Assisted in a jurisdictional delineation for portions of the project area.

Tribal

Tribal Environmental Assessment, Sycuan Band of the Kumeyaay Nation, San Diego County, California. Assisted in a jurisdictional delineation to determine the extent of areas along an approximately 5,000-linear-foot reach of the North Fork Sweetwater River that may be subject to the regulations of the U.S. Army Corps of Engineers (ACOE).

Water/Wastewater

San Timoteo Creek Alternative Discharge Outfall, Yucaipa Valley Water District, Riverside and San Bernardino Counties, California. In 2011, Ms. Dayton conducted biological construction monitoring for the construction of the non-potable water outfall on San Timoteo Creek to ensure compliance with conditions within the Section 1602 Streambed Alteration Agreement. Monitoring included photo documentation and completion of a detailed SOR.

Regional Brineline Extension Project, Yucaipa Valley Water District, Riverside and San Bernardino Counties, California. Assisted in preparation of permit applications to the ACOE, California Department of Fish and Game (CDFG), and Regional Water Quality Control

Board for extension of the existing Santa Ana Regional Interceptor pipeline by approximately 14 miles where proposed directional drilling would create potential temporary impacts to jurisdictional water resources.

San Diego River and San Vicente Creek Biological and Groundwater Resources Baseline Study, Public Utilities Department, City of San Diego, California. Conducted vegetation mapping along a riparian corridor to facilitate future monitoring and management of biological and groundwater resources during operation of planned groundwater production wells. Prepared a draft of the botanical report to be included as an appendix to the baseline study.

Seeley Wastewater Reclamation Facility Improvements Project, Imperial County, California. Assisted with special-status plant species surveys along the New River on a project in which upgrades to the Wastewater Treatment Plant would affect discharges to the river.

North Agua Hedionda Interceptor Project, City of Carlsbad, California. In 2009, Ms. Dayton was the lead biological monitor for the installation of underground sewer piping. She conducted preconstruction vegetation mapping and assisted in California gnatcatcher (*Polioptila californica*) monitoring during the breeding season. She attended weekly construction meetings when necessary and submitted regular site observation reports as well as a final monitoring report demonstrating compliance with permits. The project required monitoring for approximately 2 months, and monitoring served to protect native vegetation and an active gnatcatcher nest.

Cornerstone Lands at Lower Otay Reservoir, City of San Diego Public Utilities Department, California. Organized and conducted vernal pool plant surveys and documented the methods and results of the surveys in a letter report.

Coastal Treatment Plant Export Sludge Force Main Project, South Orange County Wastewater Authority (SOCWA), Orange County, California. Assisted with special-status plant species surveys at Aliso and Wood Canyons Wilderness Park.

Tijuana River Valley Emergency Maintenance Project, Stormwater Department, City of San Diego, California. In 2010, served as a project biologist and was responsible for conducting construction monitoring and ensuring permit compliance for channel maintenance activities. Maintenance activities included using large earthmoving machinery to remove a vast amount of trash and several hundred thousand tons of sediment material from the river valley, and create new, large drainage channels within the Tijuana River Valley to better direct stormwater and reduce flooding during storm events. In addition, wrote weekly site observation reports based on other biologists' daily notes and wrote a final monitoring report that included impact analyses and demonstrated permit compliance. Field monitoring on the project totaled approximately 1 week.

Plano-Tijeras Force Main Spill Site Project, County of Orange, California. In 2010, conducted construction monitoring to ensure permit compliance for sewage spill site-remediation activities and berm reconstruction. Wrote daily site observation reports and provided photo documentation. Participation in project lasted less than a week.

Relevant Training

"Monkeyflowers in Flux." University of California Jepson Herbarium workshop. June 13–16, 2013. Instructor: Steve Schoenig.

"Botany and Big Horn Sheep of the Whitewater/Mission Creek Preserves." University of California Jepson Herbarium workshop. April 25–28, 2013. Instructor: Tim Krantz.

"Project Manager Bootcamp." PSMJ. September 27–28, 2012.

"Biogeography and Endemic Plant Communities of the Big Bear-Holcomb Valley Area." University of California Jepson Herbarium workshop. June 7–10, 2012. Instructor: Tim Krantz.

"Rare Plants of Western San Diego County." California Native Plant Society (CNPS) Conservation Conference. January 10–11, 2012. Instructors: Fred Roberts and Michelle Balk.

"Wetland Delineation." Wetland Training Institute Inc. July 25–29, 2011.

Vegetation Mapping Workshop. CNPS, CDFG, and Aerial Information Systems (AIS). January 31–February 2, 2011.

Tehachapi Renewable Transmission Project (TRTP) Construction Monitoring Workshop. ICF International. December 1, 2010.

Worker Environmental Awareness Program (WEAP)/Safety Training Session. Burns & McDonnell Engineering Inc. December 9, 2010.

"Plant Terminology and Identification in San Diego County." Friends of the Jepson Herbarium. March 21–22, 2008. Instructor: Michael G. Simpson.

"Plant Families Identification." Rancho Santa Ana Botanical Garden. March 8, 2009. Instructor: Bob Allen.

"Introduction to Morphology and Identification of Flowering Plants." April 10–13, 2009. Instructors: Anna Larsen and Bianca Knoll Nakayama.

"Field and Herbarium Identification of Southern California Manzanitas." Rancho Santa Ana Botanical Garden. February 6, 2010. Instructor Bart O'Brien.

"Conifers of Southern California." Rancho Santa Ana Botanical Garden. March 6, 2010. Instructor: Lorrae Fuentes.

"Flora of Joshua Tree National Park." Desert Institute. March 20–21, 2010. Instructor: Allan Schoenherr.