November 13, 2017

Mr. Kris Alberts
Blackhawk Environmental Inc.
1720 Midvale Drive
San Diego, CA 92105
Email: kris@blackhawkenv.com
Office: 619.972.7932

Re: **2017 Survey Results for Wandering Skipper Butterfly for San Diego Gas & Electric Company TL674A Reconfiguration and TL666D Removal Project, Cities of San Diego and Del Mar, San Diego County, California.**

Dear Mr. Alberts:

Introduction

At the request of Blackhawk Environmental Inc., field surveys were conducted by Bruyea Biological Consulting along the biological study area (BSA) of the above-referenced proposed San Diego Gas & Electric Company (SDG&E TL674A Reconfiguration & TL666D Removal Project (Proposed Project). The specific goal of this survey is to assess the presence or absence and current status of the Proposed Project site as habitat to support the wandering skipper butterfly (*Panoquina errans*, herein referred to as WSB), an SDG&E Subregional Natural Community Conservation Plan (NCCP) Covered Species. A total of five focused WSB surveys occurred within the BSA by Guy Bruyea in June, July, August and September 2017 (Table 1).

Table 1.
Survey Information SDG&E Reconfiguration Site, June – September 2017

Date	Field	Weather	Wind	Biologist	Purpose
6/13/17	1000-1300	Partly Cloudy, 68-72°F	0-2mph	Bruyea	*P. errans* Survey
7/31/17	1030-1530	Cloudy, 75-80°F	0-2mph	Bruyea	*P. errans* Survey
8/07/17	0945-1500	Marine / Clear, 72-80°F	0-3mph	Bruyea	*P. errans* Survey
8/31/17	1000-1400	Marine / Clear, 79-87°F	1-2mph	Bruyea	*P. errans* Survey
9/15/17	1100-1430	Partly Cloudy, 73-76°F	1-2mph	Bruyea	*P. errans* Survey

Site Description

The Proposed Project BSA is generally located in the Cities of San Diego and Del Mar in coastal San Diego County, California. Specifically, the BSA is located along an existing power line route from Villa De La Valle and the Del Mar Fairgrounds area south through San Dieguito Lagoon, Del Mar Heights, Los Peñasquitos Lagoon and Sorrento Valley. Existing power lines and poles are present within intact open space areas of San Deiguito Lagoon and Los Peñasquitos Lagoon.

These include areas along San Dieguito Drive east of Jimmy Durante Boulevard and west of I-5, and south of Carmel Valley Road just west of I-5 south to a water treatment facility (Pump Station 65). At the San Dieguito Lagoon location, SDG&E poles trend south (briefly, along Jimmy Durante Boulevard), and then trend southeast through the Lagoon towards Del Mar Heights. At the Los Peñasquitos Lagoon location, SDG&E poles trend in a south and then southeast direction from Carmel Valley Road towards Pump Stations 65 at the east end of the lagoon near I-5 and the northern terminus of Sorrento Valley Road. Both locations have numerous poles situated within a mixture of disturbed and relatively undisturbed salt marsh, tidal channels, and mud flats. The BSA is on the U.S. Geological Surveys (USGS) Del Mar 7.5-minute quadrangle at Township 14 South, Range 3 West, Sections 6, 7, 30, and 31, and Range 4 West, Sections 1, 2, 11, 12, 13, 14, 24, and 25, and unsectioned lands within the Pueblo Lands of San Diego land grant.

Topographically, elevations on the site range from approximately 0 to 411 feet above mean sea level (AMSL). Marsh areas are primarily flat and lie close to sea level with a combined maximum vertical relief of roughly 10 feet between the highest and lowest elevation points. The highest elevation point on the site is located in Del Mar Heights where power lines cross Del Mar Heights Road. Surrounding topographic features in the immediate vicinity of the Proposed Project include mostly flat areas associated with the San Dieguito Lagoon and Los Peñasquitos Lagoon areas, but ridgelines, bluffs, and hilltops associated with Del Mar Heights and other areas are present near the survey area. Torrey Pines State Natural Reserve Extension Area, containing a mixture of tidal marsh and Diegan coastal sage scrub, is present just southwest of the Los Peñasquitos Lagoon survey area and Santa Fe railroad tracks.

Five basic habitat types have been identified at or immediately adjacent to the SDG&E Proposed Project site. These are: 1) tidal salt marsh, 2) freshwater marsh, 3) salt (alkali) and mud flats, 4) Diegan coastal sage scrub, and 5) disturbed and/or ruderal. Virtually all habitat types within the survey area are insect habitats. However, most are inhabited by insect species that are still considered to be fairly widespread and not sensitive.

Wandering Skipper Butterfly (*Panoquina errans*)

This small (about 14mm in wingspread) dark olive-brown butterfly occurs in localized colonies along the coast of southern California from the Santa Barbara area southward along both coasts of Baja California, Mexico. It is associated only with its larval host plant, saltgrass (*Distichlis spicata*), which grows primarily in sandy or salt marsh habitats along beaches, bluffs and estuaries. In recent decades this butterfly appears to have undergone significant population declines in California due to development within and surrounding many coastal marshes. Other human disturbances, including the introduction of prolonged freshwater flooding from reservoirs, wastewater effluent and interrupted or closed tidal flow has reduced soil salinity and resulted in some saltwater associated plants disappearing from many coastal marshes. This has allowed brackish water plants such as cattails (*Typha* spp.) to invade these areas, which adversely

impacts habitat for saltgrass and other native plants. In recent years aerial mosquito larvicide application to reduce the spread of West Nile virus may have adversely impacted WSB immatures.

In southern California, this butterfly is active as an adult during several generations from March to November, with peak activity during the late summer months from July to September. In the extreme southern part of its range (i.e. Cape region of Baja California Sur, Mexico) WSB flight activity peaks in November and December and adults can be present year-round. Most WSB are observed within marshes on or in close proximity to their saltgrass hostplants, but they can also be found nectaring on suitable flowers within coastal sage scrub areas nearby. WSB is not known to be a hilltopping species, which is a mate-location behavior seen in some butterflies and other insects.

The early stages of this butterfly were described by John A. Comstock in 1930. The egg is white, spherical and has a flattened bottom. The mature larva is green with a dark green mid-dorsal stripe and a lateral band of yellowish-white. The pupae are attached by a silk girdle and cremaster and are oriented head up. The pupa is greenish-brown in color and has a prominent palpal case projecting forward from the head. The caterpillars spend the day in shelters of rolled or tied leaves and feed on leaves at night (Opler, 1995). WSB likely enters diapause and forms a hibernaculum as a full or partially grown caterpillar during the winter months, then resumes feeding and completes its development in the late winter or early spring when temperatures increase and rains stimulate fresh saltgrass growth.

Although WSB is restricted to coastal salt marsh areas inhabited with saltgrass, two other similarly-sized skipper butterflies (family Hesperiidae) can be found in coastal areas and be confused with WSB identificaion in the field. The eufala skipper (*Lerodea eufala*) and umber skipper (*Paones melane*) both have much wider distributions within San Diego County. The eufala skipper is much closer in coloration and size. One way to distinguish the two butterflies is WSB is olive-brown in coloration, whereas the eufala skipper is gray-brown. In addition, the hindwings of WSB have pale yellowish spots and outlined cream-colored veins, giving the outer hindwing a streaked appearance. The eufala skipper has a uniformly colored hindwing with no spots. The umber skipper is much larger, has larger yellowish spots on both the forewing and hindwing upperside, and lacks the veined appearance on the outer hindwings.

Field Surveys

As it relates to SDG&E's NCCP Section 10 (a) 'take' permit for the WSB, a survey to determine the presence or absence and current status of this narrow-endemic butterfly and its larval host plant, saltgrass, was performed within the BSA. Special consideration was given to areas containing native vegetation that may support specific larval host plant habitat requirements for WSB. As a result, surveys were mostly confined to the San Dieguito Lagoon and Los Peñasquitos Lagoon areas. Adjacent locations where potential nectar resources may be found were also surveyed,

especially in less disturbed areas inhabited by Deigan coastal sage scrub. The presence or absence of invasive, non-native plant species was noted in an effort to assess the level of previous anthropogenic disturbance in a given area. Other habitat requirements including the presence of potential nectar resources and the overall quality of the site as it pertains to WSB was assessed. A focused survey (no official protocol is in place) for WSB adults and immature stages (eggs, larvae, and/or pupae) was conducted during this study, but not for any other potentially sensitive insect species known from the region.

A large portion of the BSA and SDG&E existing power lines lie within Del Mar Heights, a high-density residential area located on a coastal bluff away from natural WSB marsh habitat found at lower elevations. In general, the BSA between Racetrack View Road to the north and Carmel Valley Road to the south were largely excluded from WSB surveys due to a lack of WSB natural habitat containing its larval hostplant. Although much of this area is developed, small undeveloped lots and disturbed hillsides along the route were assessed for the presence of saltgrass and WSB, and none was observed. Undisturbed areas within Del Mar Heights containing Diegan coastal sage scrub were assessed for potential WSB nectar resources. Other areas were excluded from surveys due to various anthropogenic activities, including commercial and residential development, railroad tracks, parking lots, paved roads, ornamental landscaping and other disturbances.

Foot access to the San Dieguito Lagoon portion of the BSA was generally from San Dieguito Drive east of Jimmy Durante Boulevard and the Del Mar Fairgrounds. Some San Dieguito Lagoon areas were accessed from a portion of the San Dieguito River Walk trail and Racetrack View Drive. Foot access to the southern portion of the Los Peñasquitos Lagoon BSA was from Sorrento Valley Road near Pump Station 65 and a bike path / multi-use trail. The northern portion of the Los Peñasquitos Lagoon area was accessed from Carmel Valley Road south of Portofino Drive. Some marsh areas within both lagoons were inaccessible during this survey due to areas being isolated by tidal flow or a muddy ground surface. Other locations within Los Peñasquitos Lagoon were difficult to access due to the presence of dense cattail patches invading previously disturbed areas, especially northwest of Pump Station 65.

Focused surveys were performed within the BSA only and included an approximately 150 foot buffer on either side of the existing power poles (300 foot total buffer area). Field surveys were conducted during daylight hours from 0945 to 1500 Pacific Daylight (Savings) Time (PDT). Temperatures recorded during the survey ranged from 68 to 87 ºF (degrees Fahrenheit) and conditions were generally partly cloudy to sunny (a marine layer was present during the early portion of most surveys) with little or light winds (less than 2 mph). GPS coordinates of all WSB observations made during field surveys were noted (Appendix A). All butterfly species observed during surveys were identified in the field by Guy Bruyea (Appendix B). Representative

photographs of WSB habitat within both lagoon areas were collected to document current site conditions (Appendix C).

Literature Review

Documentation pertinent to the insect resources for the survey area was reviewed and included (but are not limited to) Emmel and Emmel (1973), Orsak (1976), Brown (1987), Emmel (1998), and Faulkner & Klein (2012). Additional resources may be found at the end of this report.

Results

Conditions during the 2017 field season were conducive to WSB adult seasonal flight activity. WSB adults were observed during three of the five survey visits on July 31, August 7 and August 31, 2017. WSB observations are displayed on Figure 1a through 1m. All WSB observations occurred at two distinct locations within the BSA: 1) San Dieguito Lagoon, mostly along its margins in close proximity to San Dieguito Drive, the San Dieguito River Walk and marsh areas to the east and northeast; and 2) Los Peñasquitos Lagoon, mostly south of the intersection of Carmel Valley Road and Portofino Drive, and areas adjacent to and north of Pump Station 65 and marsh areas to the northwest. The highest number of WSB adult observations (14) was made during the August 31, 2017 field visit to both lagoon areas. Six adults (4 males, 2 females) were observed at Los Peñasquitos Lagoon and eight adults (4 males, 2 females, and 2 undetermined) were observed at San Dieguito Lagoon. Additional observations at Los Peñasquitos Lagoon include three adults (3 males) on July 31 and three adults (2 males, 1 female) on August 7. Additional observations at San Dieguito Lagoon include one adult (1 male) on July 31 and two adults (1 male, 1 female) on August 7. A survey total of twelve adults (9 males, 3 females) were observed at Los Peñasquitos Lagoon and eleven adults (6 males, 3 females, 2 undetermined) were observed at San Dieguito Lagoon (Table 2). The total number of WSB observed is twenty-three adults (15 males, 6 females, and 2 undetermined).

Table 2.
WSB Survey Results (SDL = San Dieguito Lagoon, LPL = Los Peñasquitos Lagoon)
SDG&E Reconfiguration Site, June – September 2017

Date	SDL	LPL	*P. errans* Total
6/13/17	0	0	0
7/31/17	1 male	3 males	4 males
8/07/17	1 male, 1 female	2 males, 1 female	3 males, 2 females
8/31/17	4 males, 2 females *	4 males, 2 females	8 males, 4 females *
9/15/17	0	0	0
* Gender undetermined for two (2) adult WSB observations at SDL on 8/31			

No WSB adults were observed during the June 13 or September 15 surveys. No WSB adults were observed within the Del Mar Heights residential BSA between the two lagoon sites due to lack of salt marsh habitat. In addition, no WSB were observed north of San Dieguito Lagoon along

Jimmy Durante Boulevard or east along Villa De La Valle, or south of Los Peñasquitos Lagoon and Pump Station 65 along and just west of I-5 to Vista Sorrento Parkway east of I-5. These areas are mostly disturbed and/or developed. An undeveloped area northeast of the Jimmy Durante Boulevard bridge (just north of San Dieguito Drive and southeast of the Del Mar Fairgrounds) is currently undergoing habitat restoration and/or development in association with the San Dieguito River Walk trail. Surveys were limited at this location due to a lack of natural habitat, but this area may serve as WSB habitat in the future.

No WSB immature stages (eggs, larvae or pupae) were observed at any location within the SDG&E survey area during this study.

Saltgrass and other salt marsh associated native plants are present in both lagoon areas where WSB was observed in 2017. Several nectar resources are also available. WSB was observed (infrequently) nectaring on alkali heath (*Frankenia salina*) and wild heliotrope (*Heliotropium curassavicum*), which was observed growing among patches of saltgrass at San Dieguito and Los Peñasquitos Lagoons. Most WSB observations were of perching adults on various plants within both lagoon areas, including saltgrass, glasswort (*Salicornia* spp.), iceplant (*Carpobrotus species*), various non-native grasses and other plants growing within or adjacent to saltgrass patches.

Additional summer and early fall blooming potential native and non-native nectar resources that were observed on the site and in immediately adjacent areas include California buckwheat (*Eriogonum fasciculatum*), sand aster (*Lessingia filaginifolia*), telegraph weed (*Heterotheca grandiflora*), mulefat (*Baccharis salicifolia*), coastal goldenbush (*Isocoma menziesii*), twiggy wreath plant (*Stephanomeria virgata*), mustards (*Hirschfeldia* and *Brassica* spp.), ice plant (*Mesembryanthemum* spp.), and other plants.

Discussion and Recommendations

Portions of the BSA remain relatively undisturbed and support a diverse group of native plant species based on the present survey effort. However, relatively few insects were observed during the present survey and diversity appears low for many insect families. Areas to the north, south, east, and in the Del Mar Heights area of the Proposed Project site are mostly developed for residential or commercial use, making the lagoon areas within the SDG&E site an 'island' of isolated natural habitat, which may be one limiting factor. Other disturbances associated with the installation of the Santa Fe railroad tracks (which divides portions of the Los Peñasquitos Lagoon into two halves), I-5, Pump Station 65, invasive non-native vegetation, and the disruption of natural water movement in the area over time may have an adverse effect on local insect diversity and abundance.

Based on our understanding of the Proposed Project, impacts to vegetation beneath poles and power lines will be minimized by SDG&E personnel to the fullest extent possible. Adult

butterflies (including WSB, if present) that are adjacent to any line or pole conversion operations will likely be able to relocate (fly) to areas that are not being temporarily disturbed. The largest threat to WSB individuals will be from trampling and other impacts to the saltgrass where immature stages may be present. As it relates to suitable habitat and potential WSB 'take,' areas where saltgrass occurs should be avoided where reasonably possible, especially within both lagoons where WSB adults were observed during this 2017 study.

The most conspicuous saltgrass patches found within the BSA are located within San Dieguito Lagoon north of San Dieguito Drive between the San Dieguito River Walk area east of the pier in the vicinity of Pole Z90294 to about Racetrack View Drive and Pole Z90289, and within Los Peñasquitos Lagoon south of Carmel Valley Road to just north of Pump Station 65 and Pole Z90243. Additional saltgrass patches are present within Los Peñasquitos Lagoon away from invasive cattail patches and other disturbances. Activities in both lagoon areas should be conducted in a manner that avoids all large saltgrass patches where possible. To minimize (or avoid) disturbance to saltgrass vegetation under the power lines and in adjacent areas, it is recommended that foot traffic be minimized where possible. If any conductors are reeled in during the conversion process, laying conductors directly on saltgrass vegetation beneath the poles should be avoided where reasonably possible.

Conclusion

This survey was performed between June and September 2017 during five daytime field visits. The entire BSA as described above was evaluated for the presence or absence of WSB and potentially suitable WSB habitat. WSB was observed on portions of the Proposed Project site, primarily within saltgrass inhabited areas of San Dieguito Lagoon and Los Peñasquitos Lagoon.

Additional surveys may be warranted just prior to work on the Proposed Project. Focused surveys for immature WSB (i.e. eggs, larvae, pupae) could be performed in areas where WSB was observed to 'clear' these areas. If any immature WSB were found, it may be possible to relocate them to saltgrass patches away from any temporary disturbances associated with the Proposed Project. A disadvantage of conducting additional surveys would be the increased foot traffic on portions of the site, which increases the potential for trampling saltgrass, other salt marsh vegetation, and WSB immatures, if present. In addition, approval to relocate WSB may be required from the United States Fish & Wildlife Service or other agency.

Mr. Alberts:

If I can be of any further assistance regarding this Proposed Project and report, please do not hesitate to contact me by email at gbruyea@gmail.com or phone at 909.226.9268.

Sincerely,
Bruyea Biological Consulting

Guy P. Bruyea
Principal Biologist

Certification and Signature Page

SDG&E TL674A Reconfiguration & TL666D Removal Project
Cities of San Diego and Del Mar, San Diego County, California

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

November 13, 2017

_____ Date _____

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References and Citations

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Source: ESRI; Bing; AECOM; RECON.

350 175 0 350 Feet

1:4,200 1 inch = 350 feet

Figure 1a
Wandering Skipper Survey Results

2017 Survey Results for Wandering Skipper Butterfly for SDGE TL 674A Reconfiguration and TL 666D Removal Project

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Source: ESRI; Bing; AECOM; RECON.

350 175 0 350 Feet

1:4,200 1 inch = 350 feet

Figure 1b
Wandering Skipper Survey Results

2017 Survey Results for Wandering Skipper Butterfly for SDGE TL 674A Reconfiguration and TL 666D Removal Project

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Source: ESRI; Bing; AECOM; RECON.

350 175 0 350 Feet

1:4,200 1 inch = 350 feet

Figure 1c
Wandering Skipper Survey Results

2017 Survey Results for Wandering Skipper Butterfly for SDGE TL 674A Reconfiguration and TL 666D Removal Project

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Source: ESRI; Bing; AECOM; RECON.

350 175 0 350 Feet

1:4,200 1 inch = 350 feet

Figure 1d
Wandering Skipper Survey Results

2017 Survey Results for Wandering Skipper Butterfly for SDGE TL 674A Reconfiguration and TL 666D Removal Project

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Source: ESRI; Bing; AECOM; RECON.

350 175 0 350 Feet

1:4,200 1 inch = 350 feet

Figure 1e
Wandering Skipper Survey Results

2017 Survey Results for Wandering Skipper Butterfly for SDGE TL 674A Reconfiguration and TL 666D Removal Project

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Source: ESRI; Bing; AECOM; RECON.

350 175 0 350 Feet

1:4,200 1 inch = 350 feet

Figure 1f
Wandering Skipper Survey Results

2017 Survey Results for Wandering Skipper Butterfly for SDGE TL 674A Reconfiguration and TL 666D Removal Project

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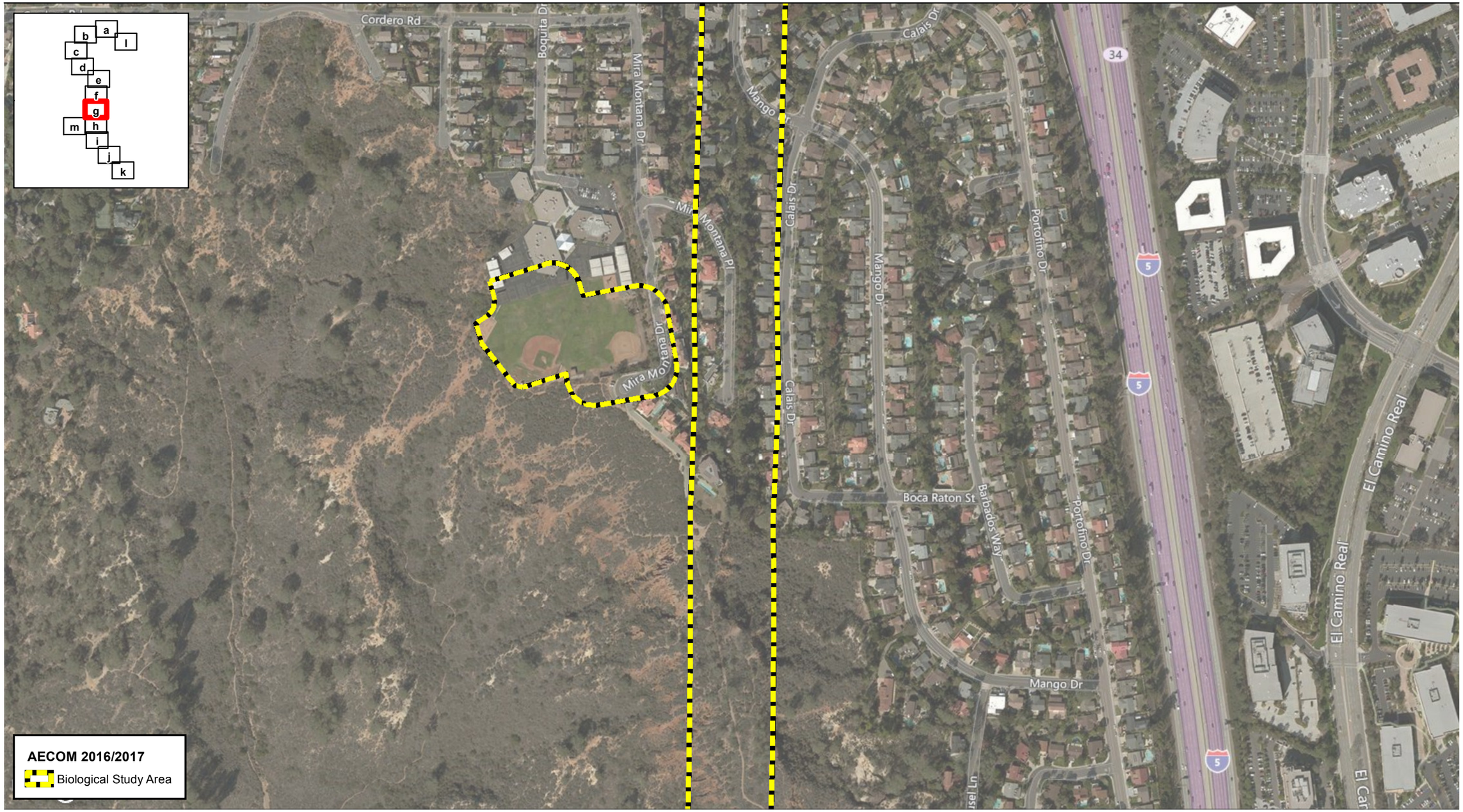

Source: ESRI; Bing; AECOM; RECON.

350 175 0 350 Feet

1:4,200 1 inch = 350 feet

Figure 1g
Wandering Skipper Survey Results

2017 Survey Results for Wandering Skipper Butterfly for SDGE TL 674A Reconfiguration and TL 666D Removal Project

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Source: ESRI; Bing; AECOM; RECON.

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1:4,200 1 inch = 350 feet

Figure 1h
Wandering Skipper Survey Results

2017 Survey Results for Wandering Skipper Butterfly for SDGE TL 674A Reconfiguration and TL 666D Removal Project

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Source: ESRI; Bing; AECOM; RECON.

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1:4,200 1 inch = 350 feet

Figure 1i
Wandering Skipper Survey Results

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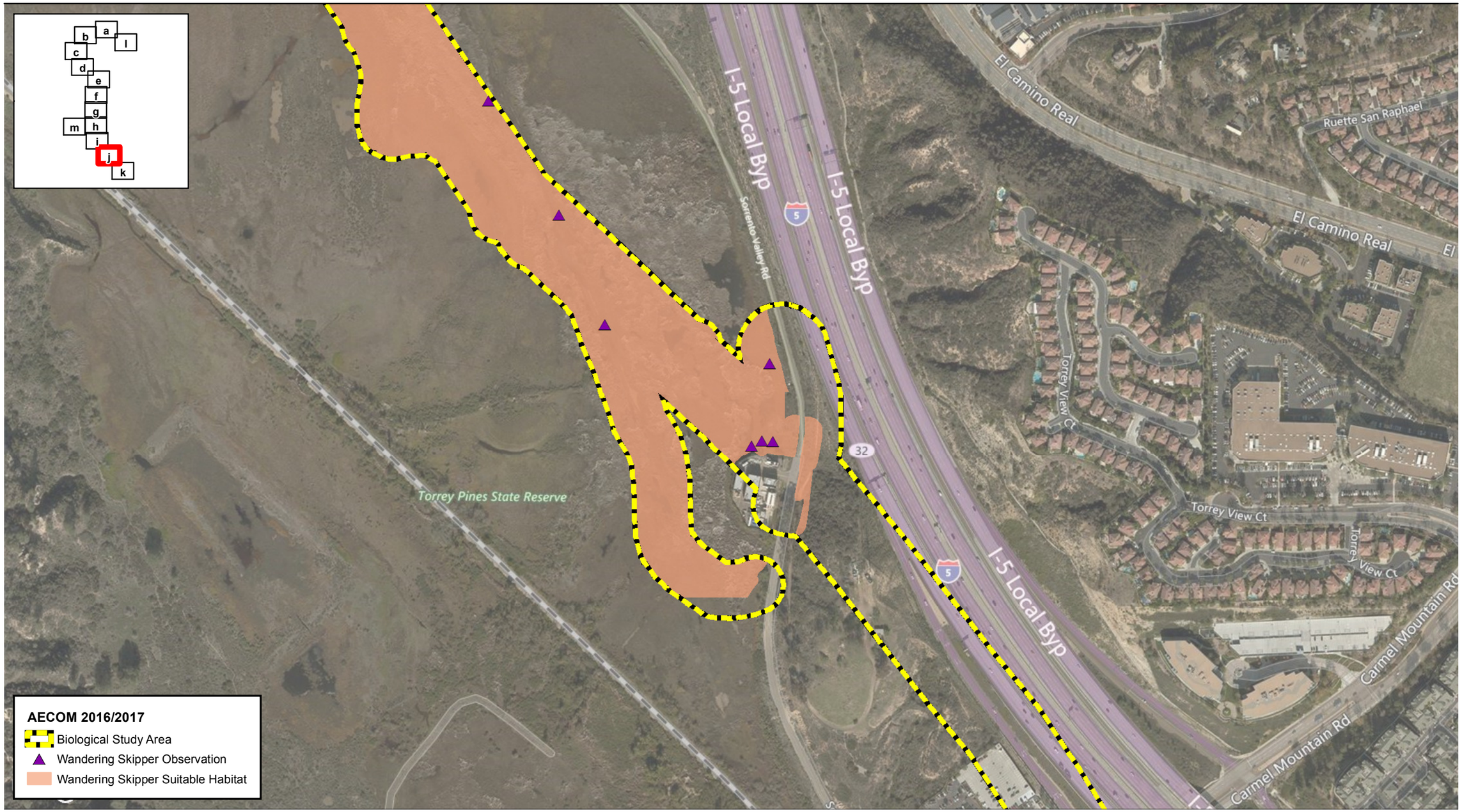

Source: ESRI; Bing; AECOM; RECON.

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1:4,200 1 inch = 350 feet

Figure 1j
Wandering Skipper Survey Results

2017 Survey Results for Wandering Skipper Butterfly for SDGE TL 674A Reconfiguration and TL 666D Removal Project

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Source: ESRI; Bing; AECOM; RECON.

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1:4,200 1 inch = 350 feet

Figure 1k
Wandering Skipper Survey Results

2017 Survey Results for Wandering Skipper Butterfly for SDGE TL 674A Reconfiguration and TL 666D Removal Project

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Source: ESRI; Bing; AECOM; RECON.

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1:4,200 1 inch = 350 feet

Figure 11
Wandering Skipper Survey Results

2017 Survey Results for Wandering Skipper Butterfly for SDGE TL 674A Reconfiguration and TL 666D Removal Project

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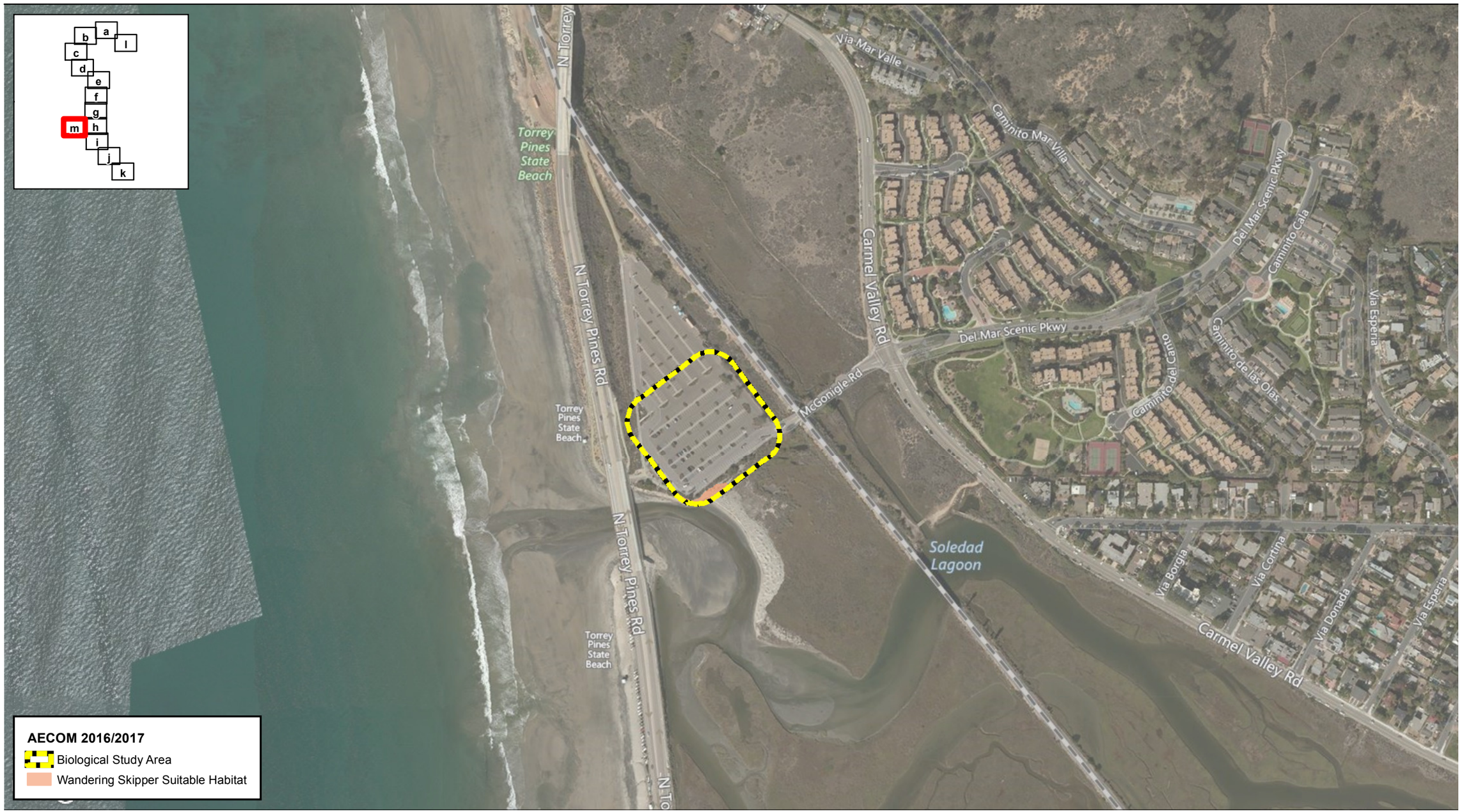

Source: ESRI; Bing; AECOM; RECON.

350 175 0 350 Feet

1:4,200 1 inch = 350 feet

Figure 1m
Wandering Skipper Survey Results

2017 Survey Results for Wandering Skipper Butterfly for SDGE TL 674A Reconfiguration and TL 666D Removal Project

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Appendix A.

Wandering Skipper observations on the SDG&E Reconfiguration Site **(N=23)**
Del Mar area, San Diego County, California
July - August 2017

Date	Observation	Coordinates	Location
7/31/17	*P. errans* (male)	N 32.921755 W 117.239456	LPL; South
7/31/17	*P. errans* (male)	N 32.922516 W 117.239378	LPL; South
7/31/17	*P. errans* (male)	N 32.930565 W 117.247049	LPL; North
7/31/17	*P. errans* (male)	N 32.967713 W 117.259644	SDL; E of River Walk Pier
8/07/17	*P. errans* (female)	N 32.930692 W 117.247782	LPL; S of Carmel Valley Rd.
8/07/17	*P. errans* (male)	N 32.923973 W 117.241869	LPL; South
8/07/17	*P. errans* (male)	N 32.922883 W 117.241317	LPL; South
8/07/17	*P. errans* (male)	N 32.967495 W 117.259466	SDL; E of River Walk Pier
8/07/17	*P. errans* (female)	N 32.966464 W 117.258569	SDL; N of San Dieguito Dr.
8/31/17	*P. errans* (male)	N 32.921745 W 117.239327	LPL; South
8/31/17	*P. errans* (male)	N 32.921702 W 117.239580	LPL; South
8/31/17	*P. errans* (male)	N 32.925098 W 117.242712	LPL; Central
8/31/17	*P. errans* (male)	N 32.930909 W 117.247764	LPL; S of Carmel Valley Rd.
8/31/17	*P. errans* (female)	N 32.930909 W 117.247764	LPL; S of Carmel Valley Rd.
8/31/17	*P. errans* (female)	N 32.930751 W 117.247582	LPL; S of Carmel Valley Rd.
8/31/17	*P. errans* (male)	N 32.968880 W 117.260735	SDL; W of River Walk Pier
8/31/17	*P. errans* (female)	N 32.968229 W 117.260396	SDL; W of River Walk Pier
8/31/17	*P. errans* (male)	N 32.967537 W 117.259606	SDL; E of River Walk Pier
8/31/17	*P. errans* (male)	N 32.967293 W 117.259228	SDL; E of River Walk Pier
8/31/17	*P. errans* (undet.)	N 32.965530 W 117.257452	SDL; N of San Deiguito Dr.
8/31/17	*P. errans* (male)	N 32.966491 W 117.258447	SDL; N of San Dieguito Dr.
8/31/17	*P. errans* (female)	N 32.963446 W 117.254035	SDL; N of Racetrack View Dr
8/31/17	*P. errans* (undet.)	N 32.963576 W 117.253691	SDL; N of Racetrack View Dr

Appendix B.

Butterflies observed on the SDG&E Reconfiguration Site **(N=25)**
Del Mar area, San Diego County, California
June - September 2017

Surveys thoughout the year, especially from March to October, are necessary to achieve a thorough butterfly inventory for any given site. Several butterfly species expected to occur within the SDG&E survey area were not observed due to season and the limited scope of this survey.

Scientific Name	Common Name
Papilionidae	**Swallowtails**
Papilio rutulus	Western Tiger Swallowtail
Papilio zelicaon	Anise Swallowtail*
Nymphalidae	**Brush-footed Butterflies**
Agraulis vanillae	Gulf Fritillary
Basilarchia lorquini	Lorquin's Admiral
Junonia coenia	Buckeye
Nymphalis antiopa	Mourning Cloak
Vanessa cardui	Painted Lady
Vanessa annabella	West Coast Lady
Vanessa atalanta	Red Admiral
Vanessa virginiensis	Virginia Lady
Danaidae	**Milkweed Butterflies**
Danaus plexippus	Monarch
Riodinidae	**Metalmarks**
Apodemia mormo virgulti	Behr's Metalmark
Calephelis wrighti	Wright's Metalmark
Lycaenidae	**Blue, Hairstreaks, Coppers**
Brephidium exilis	Pygmy Blue
Hemiargus isola	Reakirt's Blue
Icaricia acmon	Acmon Blue
Leptotes marina	Marine Blue
Strymon melinus	Common Hairstreak

Appendix B. Butterflies (Continued)

Pieridae	**Whites and Sulfurs**
Colias eurytheme	Alfalfa Sulphur
Phoebis sennae	Cloudless Sulphur
Pontia protodice	Checkered White
Pieris rapae	Cabbage White
Hesperiidae	**Skippers**
Heliopetes ericetorum	Large White Skipper
Hylephila phyleus	Fiery Skipper
Panoquina errans	Wandering Skipper

* *P. zelicaon* larvae (all instars) were observed commonly on sweet fennel (*Foeniculum vulgare*) at the eastern margins of Los Peñasquitos Lagoon during the 8/7/17 field visit.

Appendix C. Site Photos for SDG&E TL674A Reconfiguration & TL666D Removal Site

Image 1: View west of San Dieguito Lagoon east of San Dieguito River Walk pier showing saltgrass habitat for wandering skipper. Wandering skipper was observed in this area.

Image 2: View west of San Dieguito Lagoon showing saltgrass habitat for wandering skipper along margin of San Dieguito River Walk. Wandering skipper was observed in this area.

Image 3: View east of San Dieguito Lagoon showing habitat for wandering skipper. Tidal flow prevented access to some pole sites east of this location.

Image 4: View west of San Dieguito Lagoon from San Dieguito Drive / Racetrack View Road showing habitat for wandering skipper. Foreground area contains Diegan coastal sage scrub.

Image 5: Wandering skipper perched on iceplant in San Dieguito Lagoon near River Walk pier.

Image 6: Wandering skipper saltgrass habitat near Pump Station 65 in Los Peñasquitos Lagoon.

Image 7: View northwest in Los Peñasquitos Lagoon showing invasive cattail (*Typha* spp.).

Image 8: View of Los Peñasquitos Lagoon from Portofino Drive and Carmel Valley Road. Wandering skipper was observed just south of this intersection. An undeveloped lot (left) with Diegan coastal sage scrub and potential nectar resources was included in surveys.

Image 9: Wandering skipper nectaring on alkali heath (*Frankenia salina*) in saltgrass habitat just north of Pump Station 65 at the east end of Los Peñasquitos Lagoon.

Image 10: Wandering skipper larval hostplant, Saltgrass (*Distichlis spicta*).