Habitat Survey for the Delhi Sands Flower-loving Fly at the 2470 Foothill Blvd., 2506 Foothill Blvd., and 2512 Foothill Blvd. sites in San Bernardino, California

APNs: 0142-041-31, 0142-041-34, 0142-521-01, and 0142-521-03

5.5-Acre Property, Total Area Surveyed: 0.7-Acres

Project Site Location: 2470 Foothill Blvd, 2506 Foothill Blvd., and 2512 Foothill Blvd., San Bernardino, San Bernardino County
USGS San Bernardino South 7.5' quadrangle map in
Township 6 south, Range 4 west

Prepared for:

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Survey Conducted On:

January 16, 2024

Report Date:

February 8, 2024

INFORMATION SUMMARY

A.	**Report Date:**	Prepared: January 5, 2024
B.	**Report Title:**	Habitat Survey for the Delhi Sands Flower-loving Fly at the 2470 Foothill Blvd., 2506 Foothill Blvd., and 2512 Foothill Blvd., San Bernardino, San Bernardino County
C.	**Project Location:**	Project Site Location: 2470 Foothill Blvd., 2506 Foothill Blvd., and 2512 Foothill Blvd. San Bernardino, San Bernardino County USGS San Bernardino North 7.5' quadrangle map in Township 1 south, Range 8 west.
D.	**PP & APN #:**	APNs: 0142-041-31, 0142-041-34, 0142-521-01, and 0142-521-03
E.	**Applicant:**	Bobby Nassir 1820 San Vicente Blvd. Santa Monica CA 90402 Phone: (310) 466-7225 E-Mail: bnassir@truckterminalproperties.com
F.	**Principal Invest. & Surveyor:**	Dale A. Powell Powell Environmental Consultants 146 West Broadbent Drive Riverside, California 92507 Mobile: (951) 440-4235 E-Mail: dajrpowell@msn.com
G.	**Summary:**	A biological survey was conducted for suitable Delhi Sands Flower-loving Fly habitat on an approximately 0.7-acre area of the site in San Bernardino, on January 16, 2024. There is approximately 0.7 acres of Delhi Sands Soil located upon the site. The presence Delhi Sands soil may indicate that the endangered Delhi Sands Flower-loving Fly may utilize the site. This was the area examined for suitable fly habitat.
H.	**Preparer:**	Dale A. Powell 146 West Broadbent Drive Riverside, California 92507 Office: (951) 686-1497 Mobile: (951) 440-4235 E-Mail: dajrpowell@msn.com

GENERAL SURVEY REPORT REQUIREMENTS:

A. Site Photographs: See Photographs 1-7. Taken: January 16, 2024

B. APNs: 0142-041-31, 0142-041-34, 0142-521-01, and 0142-521-03

C. Case Number: -

D. Surveyor Name: Dale A. Powell.

E. Survey Dates: January 16, 2024.

F. Topography/Hydrology: The site was relatively level. It was approximately 1,200 feet above sea level. No riparian/river areas, drainages or vernal pools existed on the site.

G. Soil analysis: Approximately 13.5 percent of the site consisted of Delhi fine sand (Db), 20.3 percent of the site consists of Hanford sandy loam, 0 to 2 percent slopes (Hba), and 66.2 percent Tujunga loamy sand, 0 to 5 percent slopes (TuB), (According to the Web Soil Survey (USDA, NRCS)). The Delhi series consists of very deep, somewhat excessively drained soils. They formed in wind modified material weathered from granitic rock sources. Delhi soils are on floodplains, alluvial fans and terraces. Slopes are 0 to 15 percent. Used for growing grapes, peaches, truck crops, alfalfa and for home sites. Principal native plants are buckwheat and a few shrubs and trees. Typical vegetation is annual grasses and forbs. The Hanford series consists of very deep, well drained soils that formed in moderately coarse textured alluvium dominantly from granite. Hanford soils are on stream bottoms, floodplains and alluvial fans and have slopes of 0 to 15 percent. Hanford soils are used for growing a wide range of fruits, vegetables, and general farm crops. They are also used for urban development and dairies. Vegetation in uncultivated areas is mainly annual grasses and associated herbaceous plants. The Tujunga series consists of very deep, somewhat excessively drained soils that formed in alluvium from granitic sources. Tujunga soils are on alluvial fans and floodplains, including urban areas. Slopes range from 0 to 12 percent. This soil is used for grazing, citrus, grapes, other fruits, and urban residential or commercial development. Uncultivated areas have a cover of shrubs, annual grasses and forbs. In urban areas ornamentals and turf-grass are common.

H. Species Observed list: rock dove, house finch. (See Plant Table)

I. Current Vegetation Description: Most of the northern area of the site was covered with a combination of ruderal vegetation and native vegetation, typical of the area (See Plant Table). In southwestern area of the site were houses and commercial development with primarily ruderal and ornamental vegetation growing upon it. In the southeastern area of the site were old concrete foundations. Between the two southern areas was an open area approximately 100 feet across with a combination of ruderal and native vegetation upon it. At one time a house and driveway existed upon a portion of this area. A row of *Tamarix* sp. existed on the eastern border of this small area. The DSFLF “indicator plants” California buckwheat (*Eriogonum fasciculatum*), California croton (*Croton californicus*), annual bursage (*Ambrosia acanthicarpa*), and telegraph weed (*Heterotheca grandiflora*) were absent from the site. The southern area that possessed Delhi Sands Soil was the area examined for suitable habitat for the fly. (See: Photographs and Biological Resources Map)

J. Oak Trees: None

K. Site Plan: -.

L. Jurisdictional assessment: Not applicable.

M. Assessment for any riparian/river areas and vernal pools: There were no vernal pools, drainages or riparian/river areas present upon the site.

N. Discussion of habitat: The principal vegetative type was ruderal mixed with native vegetation typically found on loamy and sandy soils of the area. In southwestern area of the site were houses and commercial development with primarily ruderal and ornamental vegetation growing upon it. In the southeastern area of the site were old concrete foundations. Between the two southern areas was an open area approximately 100 feet across with a combination of ruderal and native vegetation upon it. A row of *Tamarix* sp. existed on the eastern border of this small area. The DSFLF "indicator plants" were absent from the site. The southern area that possessed Delhi Sands Soil was the area examined for suitable habitat for the fly. Overall the site was surrounded by residential development to the north and south (across Foothill Blvd.). To the west (northern portion), across North Dallas Avenue, there was a field with vegetation similar to the vegetation found upon the site. To the west across a wall there was a field with vegetation similar to the vegetation found upon the site. It contained less ruderal vegetation however. Approximately 2,300 feet west of the site was the south end of Lytle Creek wash and a flood control basin. (See Maps, Photographs & Discussion) There is approximately 0.7 acres of Delhi Sands Soil upon the site. The presence Delhi Sands soil may indicate that the endangered Delhi Sands Flower-loving Fly may utilize the site to reproduce. The central approximately 0.2 acres is covered by open Delhi Sands Soil (the eastern 0.3 acres portion of the Delhi Sands Soil is covered by an old concrete slab and the western 0.2 acres portion is covered by development). Part of the central portion at one time possessed a house and driveway. A portion of this area has been degraded by vehicle use and by the addition of foreign matter, such as gravel and crushed stone, which makes the area unsuitable for the Delhi Sands Flower-loving Fly to lay eggs upon and reproduce. Upon the south-central portion containing Delhi Sands Soil, several *Tamarix* sp. trees were growing until recently. These trees have contaminated this portion of the Delhi Sands Soil with allelopathic compounds that render the area unsuitable for the fly. The site habitat survey found approximately 0.1 acres suitable for the fly. However this area also has been degraded by prior use and because of its small area the fly could not sustain itself. In addition the DSFLF is frequently associated with certain plants: California buckwheat (*Eriogonum fasciculatum*), California croton (*Croton californicus*), annual bursage (*Ambrosia acanthicarpa*), and telegraph weed (*Heterotheca grandiflora*), are sometimes called "indicator plants". Other native plant species also occur in DSFLF habitat: California evening primrose (*Oenothera californica*), deerweed (*Lotus scoparius*), lessinga (*Lessingia glandulifera*), rancher's fiddleneck (*Amsinckia menziesii*), sapphire woolly-star (*Eriastrum sapphirinum*), and Thurber's buckwheat (*Eriogonum thurberi*). None of these plants were observed growing upon any area of the site. A site adjacent to the west of this site was surveyed for four consecutive years in 2020, 2021, 2022, and 2023. The area surveyed was 3.4 acres in size. The surveys resulted in negative findings. The latest report was entitled: 2410 Foothill Boulevard Site in San Bernardino, California (APNs: 0142-041-20, 0142-041-18, 0142-041-17, 0142-041-11, 0142-041-10, 0142-041-09, 0142-041-44) Focused Survey for the Delhi Sands Flower-loving Fly (October 6, 2023) and was conducted by Powell Environmental Consultants.

MAP 1. General Location of the Site.

MAP 2. Location of the Site.

MAP OF SOILS

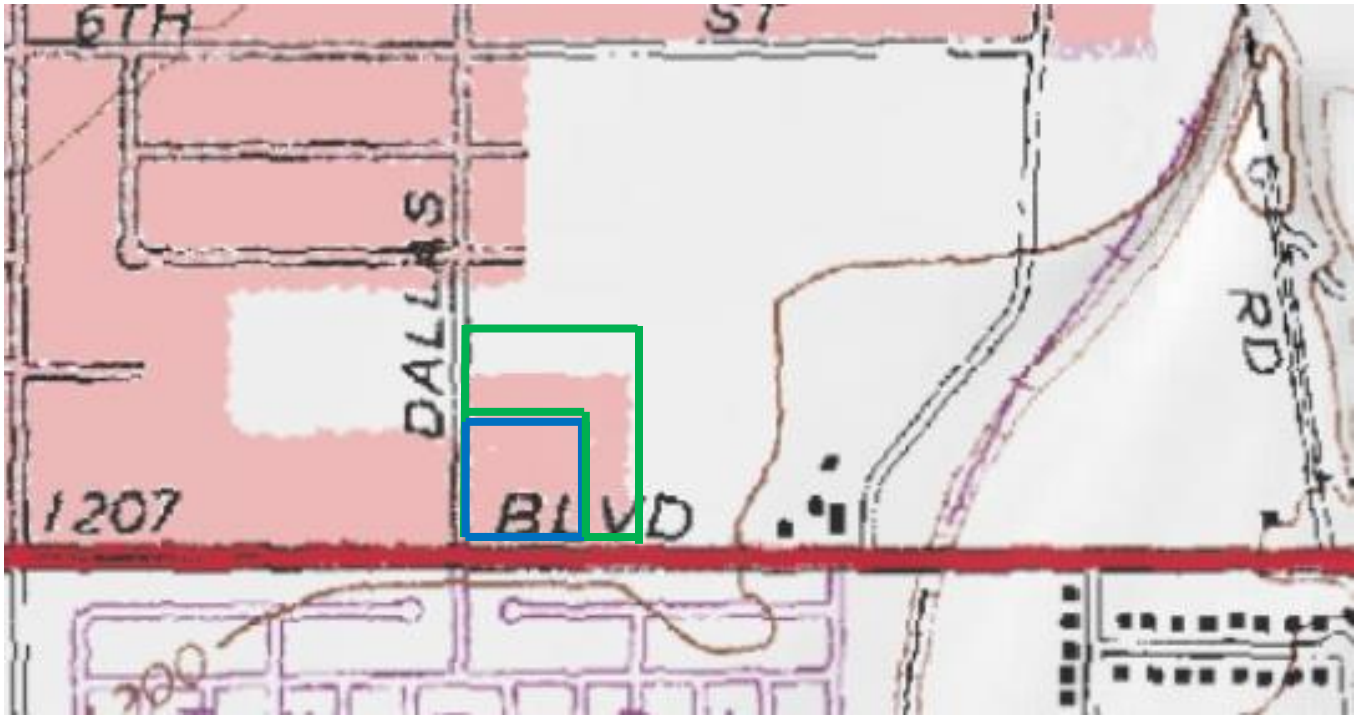
San Bernardino County Southwestern Part, California (CA677)

San Bernardino County Southwestern Part, California (CA677)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Db	Delhi fine sand	0.7	13.5%
HbA	Hanford sandy loam, 0 to 2 percent slopes	1.1	20.3%
TuB	Tujunga loamy sand, 0 to 5 percent slopes	3.6	66.2%
Totals for Area of Interest		**5.5**	**100.0%**

BIOLOGICAL RESOURCES MAP

an



LEGEND

Mixed Ruderal and Native Vegetation

Mixed Ornamental and Ruderal Vegetation

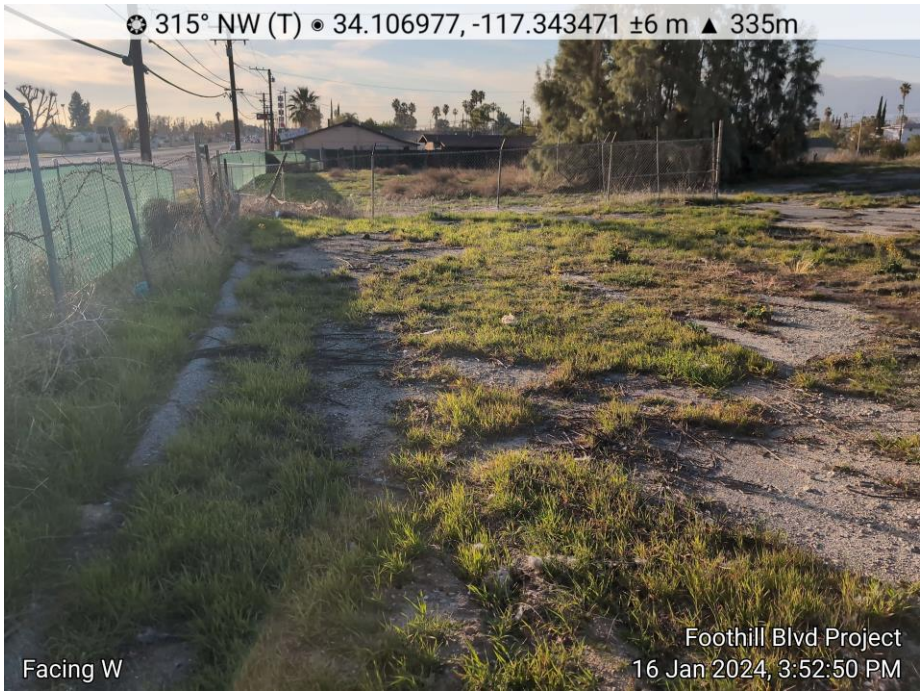
Firm Name: Powell Environmental Consultants
Report Author: Dale A. Powell
Date that the survey was performed: January 16, 2024
APNs: 0142-041-31, 0142-041-34, 0142-521-01, and 0142-521-03

Picture 1. Overview of the site facing north, from the southeastern corner.

Picture 2. Overview of the site facing northwest, from the southeastern corner.

APNs: 0142-041-31, 0142-041-34, 0142-521-01, and 0142-521-03
Photographs Taken: January 16, 2024

Picture 3. Overview of the site facing west, from the southeastern corner.



Picture 4. Overview of the site facing north, from the east-central area of the site.

APNs: 0142-041-31, 0142-041-34, 0142-521-01, and 0142-521-03
Photographs Taken: January 16, 2024

Picture 5. Overview of the site facing northeast, from the east-central area of the site.

Picture 6. Overview of the site facing east, from the east-central area of the site.

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Picture 7. House that was formally upon the property.

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PLANT SPECIES LIST

FAMILY	SPECIES	COMMON NAME
Amaranthaceae	*Chenopodium album*	Lambsquarter
Brassicaceae	*Hirschfeldia incana*	Shortpod mustard
Chenopodiaceae	*Salsola tragus*	*Russian thistle*
Geraniaceae	*Erodium* sp.	*Stork's bill*
Poaceae	*Avena fatua*	Wild oat
	Bromus diandrus	Ripgut brome
	Conyza sp.	Horseweed
	Cynodon dactylon	Bermuda grass
	Schismus sp.	Mediterranean grass
	Various grasses (primarily dried *Bromus* spp.)	grass
Tamaricaceae	*Tamarix* sp.	Tamarisk

GENERAL DISCUSSION

The site is located within the city of San Bernardino. It is approximately 5.5-acres in size and is relatively level. The site is approximately 1,200 feet above sea level.

A site evaluation was made on January 16, 2024 from 3:45 to 4:30 PM by Dale Powell. The temperature at the start of the survey was 70°F. The sky was clear and the wind speed varied from 3-5 mph.

The site was surrounded by residential development to the north and south (across Foothill Blvd.). To the west (northern portion), across North Dallas Avenue, there was a field with vegetation similar to the vegetation found upon the site. To the west across a wall there was a field with vegetation similar to the vegetation found upon the site. It contained less ruderal vegetation however. Approximately 2,300 feet west of the site was the south end of Lytle Creek wash and a flood control basin.

Approximately 13.5 percent of the site consists of Delhi fine sand (Db). Principal native plants found upon Delhi fine sand are buckwheat and a few shrubs and trees. Typical vegetation is annual grasses and forbs. 20.3 percent of the site consists of Hanford sandy loam, 0 to 2 percent slopes (Hba). Upon Hanford sandy loam native vegetation consists mainly of annual grasses and associated herbaceous plants. 66.2 percent is Tujunga loamy sand, 0 to 5 percent slopes (TuB). Upon Tujunga loamy sand native vegetation usually is a cover of shrubs, annual grasses and forbs. The area possessing Delhi fine sand was assessed as to whether it was suitable habitat for the Delhi Sands Flower-loving Fly.

No riparian/river areas, drainages or vernal pools were observed on the site.

The principal vegetative type is ruderal mixed with native vegetation typically found on loamy and sandy soils of the area. Almost all of the northern area of the site consisted of open soil. In southwestern area of the site were houses and a commercial development, with primarily ruderal and ornamental vegetation growing upon it. A row of *Tamarix* sp. was situated on the eastern border of this small area. According to old topographic maps at least a portion of the site was used for agriculture at one time. The nearest natural area was approximately 2,300 feet to the west of the site. This natural area was the south end of Lytle Creek wash and a flood control basin.

There is approximately 0.7 acres of Delhi Sands Soil upon the site. The presence Delhi Sands soil may indicate that the endangered Delhi Sands Flower-loving Fly may utilize the site. The central approximately 0.2 acres is covered by open Delhi Sands Soil (the eastern 0.3 acres portion of the Delhi Sands Soil is covered by an old concrete slab and the western 0.2 acres portion is covered by development). The central portion had at one time a house and driveway sitting upon it and was used as an access point for vehicles. Some of this area has been degraded by vehicle use and by the addition of foreign matter, such as gravel and crushed stone. The site habitat survey found approximately 0.1 acres suitable for the fly. However this area also has been degraded by prior use and because of its small area the fly could not sustain itself. The DSFLF “indicator plants” California buckwheat (*Eriogonum fasciculatum*), California croton (*Croton californicus*), annual bursage (*Ambrosia acanthicarpa*), and telegraph weed (*Heterotheca grandiflora*) were absent from the site. Also, upon the central portion containing Delhi Sands Soil, several *Tamarix* sp. trees are growing. These trees have contaminated this portion of the Delhi Sands Soil with allelopathic compounds that render the area unsuitable for the fly.

A focused survey for the Delhi Sands Flower-loving Fly is not recommended for the site.

BIBLIOGRAPHY

California Native Plant Society Electronic Inventory (CNPSEI), http://www.cnps.org/inventory/, http://www.cnplx.info/index.html.

California Natural Diversity Database (CNDDB), http://www.dfg.ca.gov/biogeodata/.

CalPhotos. http://calphotos.berkeley.edu/.

Hickman, J. C. editor 1996. The Jepson Manual. Higher Plants of California. University of California Press. Berkeley.

Munz, P.A. 1974. A Flora of Southern California. University of California Press, Berkeley, California.

Reiser, C.H. 2001. Rare Plants of San Diego County, 2001 edition. Unpublished. Aquafir Press, San Diego, California.

Sibley, D. A. 2000. The Sibley Guide to Birds. National Audubon Society. Alfred A. Knopf. New York.

Web Soil Survey. http://websoilsurvey.nrcs.usda.gov/app/.

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP).

Western Riverside County MSHCP Species Accounts – Plants.

Whitson, T. D. editor 2000. Weeds of the West. University of Wyoming.

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CERTIFICATION: I certify that the information in this survey report and attached exhibits fully and accurately represents my work.

Dale A. Powell

2/8/2024

Dale A. Powell
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