

*Re: 10/18/03 Percolation Study
END 10/18/03 A332-1*

**FOCUSED SURVEY REPORT FOR THE
DELHI SANDS FLOWER-LOVING FLY**

REGIONAL PLANT NON-3 PERCOLATION FACILITY

CITY OF FONTANA

SAN BERNARDINO COUNTY, CALIFORNIA

LSA

© October 22, 2001



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TO: Ken Peterson DATE: October 22, 2001
Inland Empire Utilities Agency FOR YOUR REVIEW FOR YOUR FILES
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SUBJECT: _____

PROJECT: Plant No. 3
PROJECT NUMBER: IEU030

ITEMS BELOW ARE TRANSMITTED: HERewith UNDER SEPARATE COVER VIA: Overnight

DATE	COPIES	DESCRIPTION
October 22, 2001	4 bound	Focused Survey Report For The Delhi Sands Flower - Loving Fly

GENERAL REMARKS: _____

COPIES TO: _____
BY: Sheryl Schumacher for Denise Woodard

INTRODUCTION

This report serves to document the results of the second consecutive year of Delhi sands flower-loving fly (*Raphiomidas terminatus abdominalis*) (DSF) focused surveys by LSA Associates, Inc. (LSA) on the proposed 60-acre Regional Plant No. 3 Percolation Facility project site. It is located within the northeast 1/4 of Section 35, T1S, R3W, at the southwest corner of Jurupa Avenue and Beech Avenue in the City of Fontana, San Bernardino County, California (Figure 1).

BACKGROUND

The reduction and fragmentation of approximately 97 percent of DSF habitat by agricultural conversion, commercial and residential development, and mining activities led to the listing of DSF as Endangered by the U.S. Fish and Wildlife Service (USFWS) on September 23, 1993 (58 Federal Register 49881). The USFWS has produced guidelines for focused DSF surveys (USFWS, 1996), and approved a recovery plan (USFWS, 1997).

The DSF is in the Dipteran family Mydidae. It is 2.5 centimeters (1 inch) long, orange-brown in color with dark brown oval spots on the upper surface of the abdomen, and has an elongated body and a long tubular proboscis which may be used for extracting nectar from flowers.

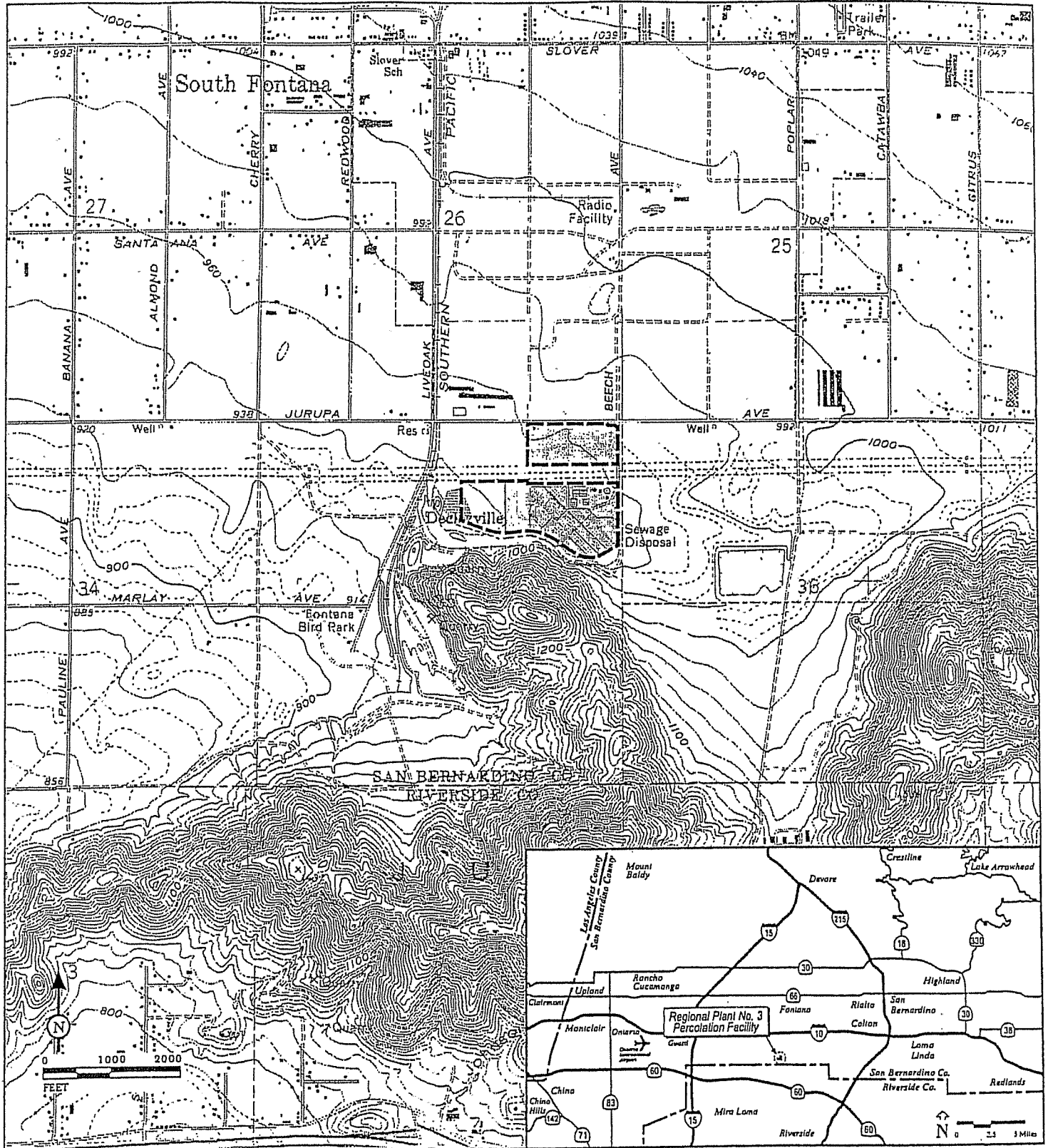
The DSF is found in association with sandy Delhi series soils, which occur irregularly over approximately 1,200 acres in western Riverside and San Bernardino Counties. The DSF is currently only known from approximately 12 locations, but is thought to have once occurred throughout the distribution of the Delhi soils series in Riverside and San Bernardino Counties.

Knowledge of the biology of the DSF is extremely limited. Females lay eggs in unconsolidated Delhi sand, usually in association with sparse (0 to 40 percent cover), native vegetation of the Riversidean sage scrub plant community typically dominated by California croton (*Croton californicus*), California buckwheat (*Eriogonum fasciculatum*), deer weed (*Lotus scoparius*), and telegraph weed (*Heterotheca grandiflora*). The larvae develop beneath the sand, and adults emerge from late July through mid-September. The adult life span is likely to be from one to two weeks.

The project site is within the Ontario and Jurupa Recovery Units for the DSF (USFWS, 1997). The closest known occurrence of the DSF to the subject site is approximately one mile to the southeast in the Jurupa Hills.

SURVEY METHODS

LSA biologist, Denise Woodard, permitted under PRT-777965 to conduct focused DSF surveys, visited the site during the 2001 survey season (August 1 to September 20, 2001). The site was surveyed 14 times according to USFWS guidelines (USFWS 1996). Approximately 50 acres of the total 60-acre site were determined to be potentially suitable habitat for the DSF during the 2000 survey season (LSA 2000). Figure 2 shows the DSF survey area and Figures 3 and 4 show site photographs. Appendix A contains a list of all plant and animal species identified on site, and Appendix B contains the biological data sheet showing the survey personnel, survey dates, survey times, weather conditions, and general field notes.



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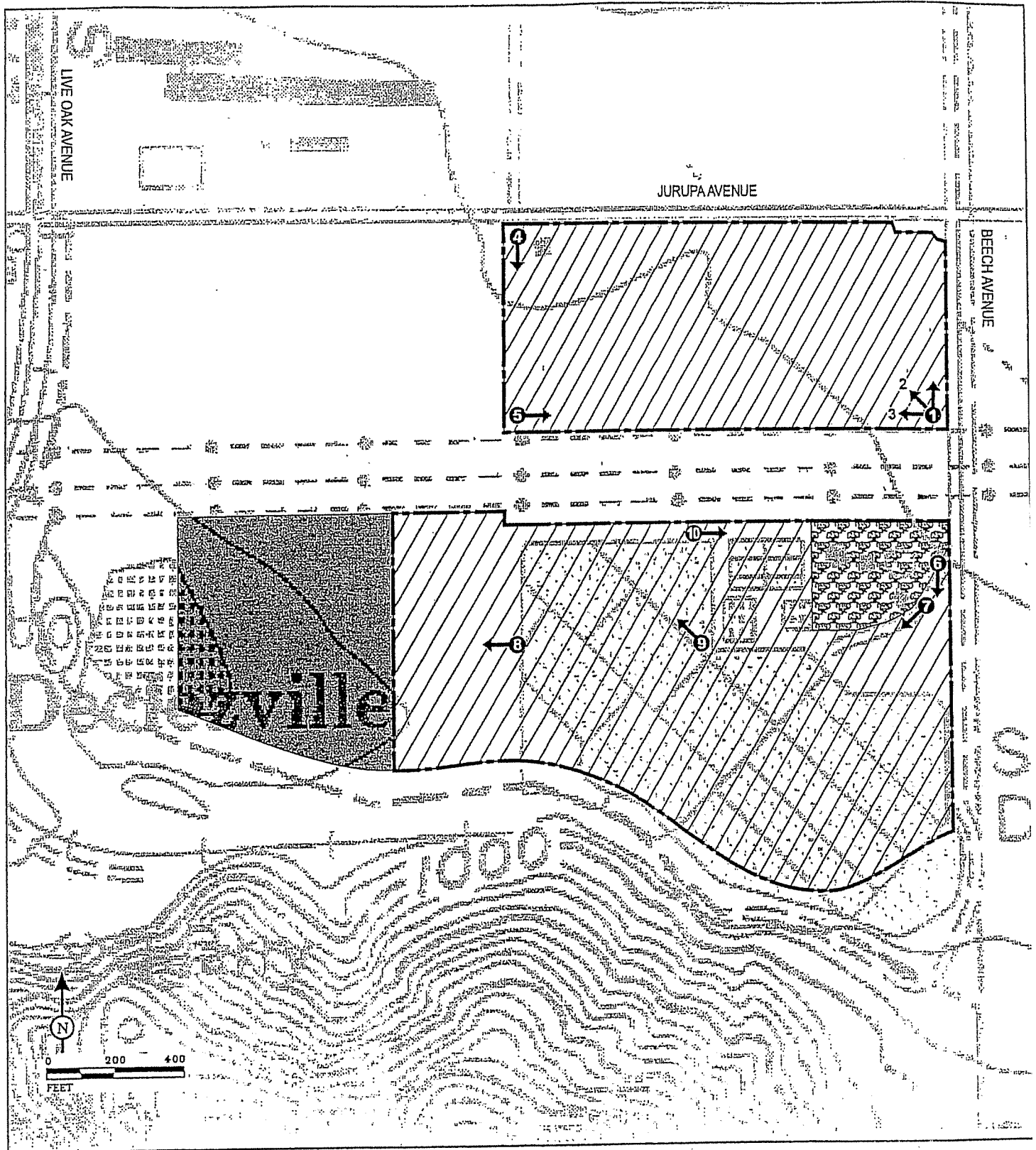
- PROJECT BOUNDARY
- SURVEY AREA

Regional Plant No. 3 Percolation Facility
 Delhi Sands Fly Survey
 Regional Location

SOURCE: USGS 7.5' QUAD - FONTANA, 1980






R:\NEU1030\Graphics\2001\DSF\regional.cdr (10/18/01)

FIGURE 1



FIGURE

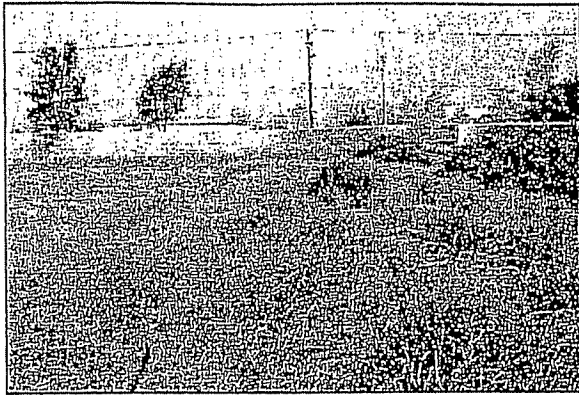
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- | | | | |
|---|----------------------|---|---|
|  | SURVEY AREA BOUNDARY |  | ORNAMENTAL TREES AND SHRUBS |
|  | EXCLUDED AREA |  | DISTURBED, NON-NATIVE ANNUAL GRASSLAND |
| | |  | PHOTOGRAPH LOCATION AND DIRECTION TAKEN |

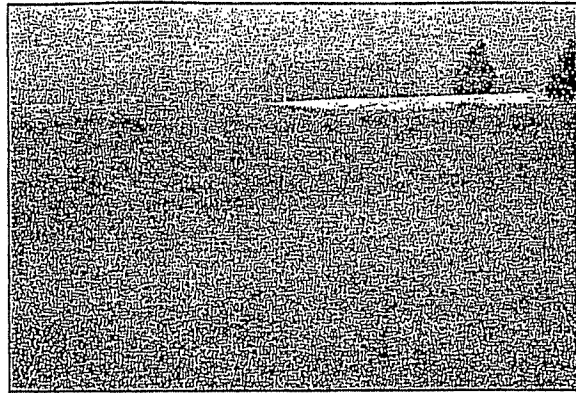
Regional Plant No. 3 Percolation Facility
 Delhi Sands Fly Survey
 Survey Area Showing
 Vegetative Communities

SOURCE: USGS 7.5' QUAD - FONTANA, 1980

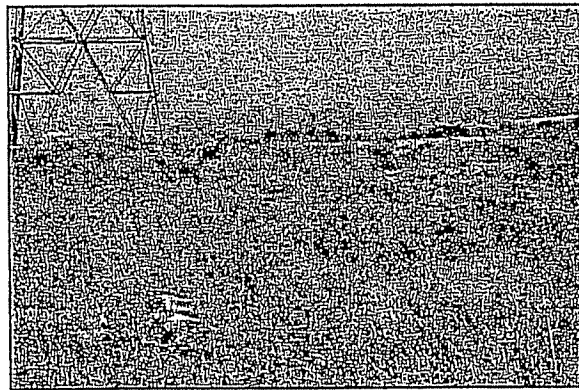
R:\NEU1030\Graphics\2001 DSVveg.cdr (10/18/01)



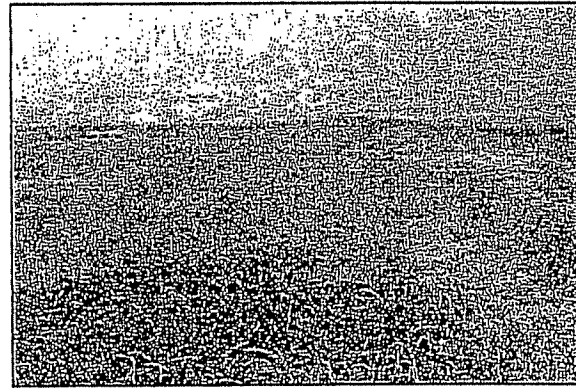
Photograph 1: View north showing general site conditions.



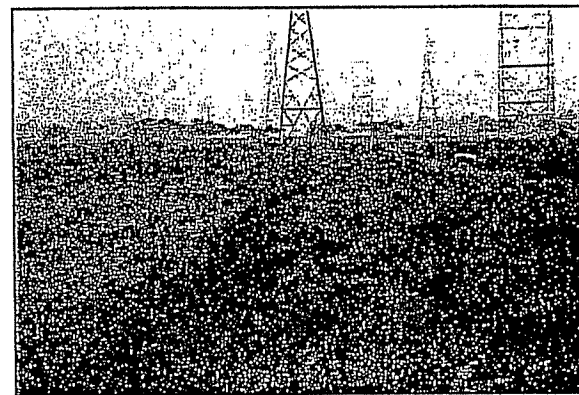
Photograph 2: View northwest showing general site conditions.



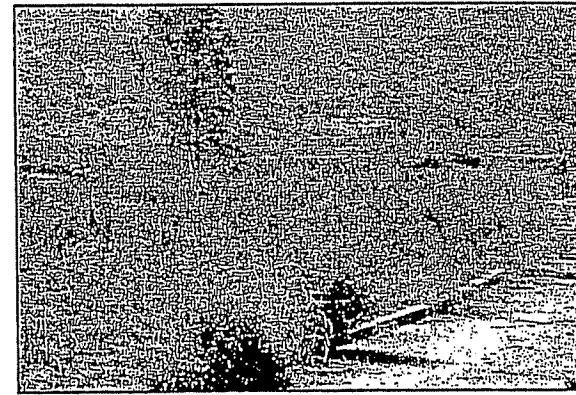
Photograph 3: View west showing general site conditions.



Photograph 4: View south showing general site conditions.



Photograph 5: View east showing general site conditions.

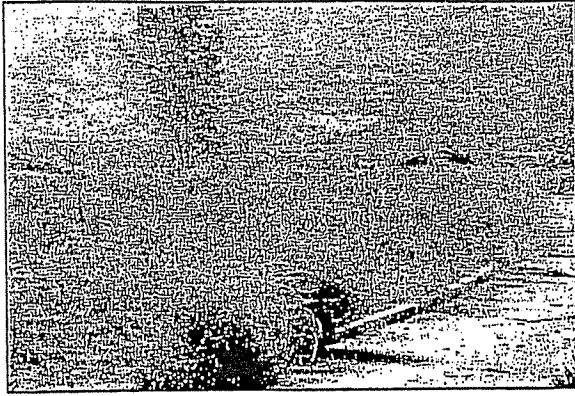


Photograph 6: View south showing general site conditions.

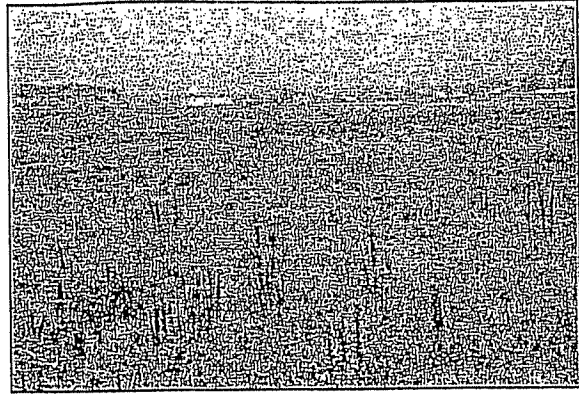
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FIGURE 3

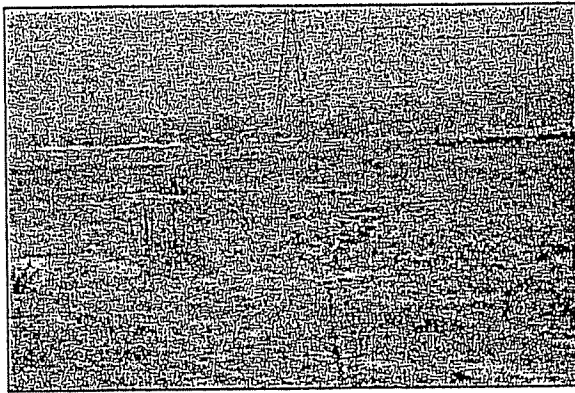
*Regional Plant No. 3 Percolation Facility
Delhi Sands Fly Survey
Site Photographs*



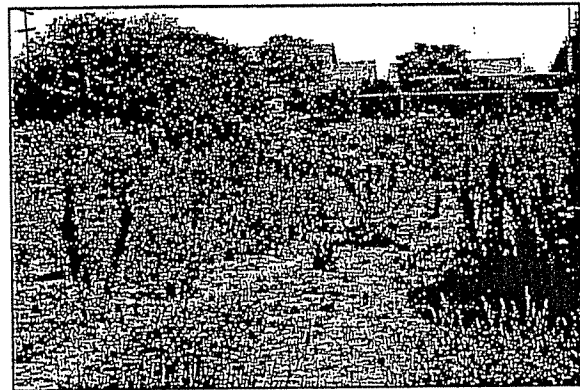
Photograph 7: View southwest showing general site conditions.



Photograph 8: View west showing general site conditions.



Photograph 9: View northwest showing general site conditions.



Photograph 10: View east showing general site conditions.

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FIGURE 4

*Regional Plant No. 3 Percolation Facility
Delhi Sands Fly Survey
Site Photographs*

RESULTS

General Site Characteristics

The elevation of the 60-acre project site ranges approximately from 930 to 970 feet. A sewage disposal facility was formerly operated on the site and site conditions have not changed since the 2000 DSF surveys. The northern portion of the site is occupied entirely by old settling ponds. The southern portion of the site contains abandoned facility structures and abandoned settling ponds. These facilities occupy the eastern two thirds of the this portion of the site. It is apparent from an aerial photograph in *Soil Survey of San Bernardino County, Southwestern Part, California* (Soil Conservation Service, 1980), that the portions of the site not covered by the sewage disposal facility were once under cultivation.

A power transmission line corridor separates northern survey area from the southern survey area. The site is bounded on the south by a concrete-lined canal, on the east by Beech Avenue and a residential development, and on the north by Jurupa Avenue and residential development. Land adjoining the western boundary is undeveloped, but has been highly disturbed by weed abatement and past agricultural use.

According to *Soil Survey of San Bernardino County, Southwestern Part, California* (Soil Conservation Service, 1980), Tujunga loamy sand and Tujunga gravelly loamy sand cover approximately 50 acres of the site, with Delhi fine sand covering the remaining 10 acres (on the southeast corner of northern survey area and on the northeast corner of southern survey area). The soils observed on the site during the surveys are mostly compacted gravelly loamy sands or sandy loams. Loose sands are mostly limited to a few acres at the northeastern corner of the southern survey area. Overall soil conditions on site are considered very poor for the DSF.

Plant Communities

The predominant plant community on the site is disturbed non-native annual grassland, dominated by foxtail chess (*Bromus madritensis*), common ripgut grass (*Bromus diandrus*), hare barley (*Hordeum murinum*), Russian thistle (*Salsola tragus*), annual bur-sage (*Ambrosia acanthicarpa*), and shortpod mustard (*Hirschfeldia incana*) (Figure 2). A total of 10 acres at the extreme western end of southern survey is more densely covered with these species than is the remainder of the site, and was determined to be unsuitable habitat for DSF (LSA, 2000).

Ornamental trees and shrubs, including oleander (*Nerium oleander*) and ash (*Fraxinus sp.*), occur at the east end of northern survey area and in the northeast corner of southern survey area. Mulefat (*Baccharis salicifolia*), the only common native perennial on the site, occurs along a brick wall at the east end of the northern survey area.

Wildlife

Wildlife observed during the DSF surveys included vertebrate species typical of non-native grasslands and of other settings where little natural habitat remains. Common insect species observed on the site include pallid band-wing grasshopper (*Trimertropis pallidipennis*), fiery skipper

(*Hylephila phyleus*), checkered white butterfly (*Pontia protodice*), red harvester ants (*Pogonomyrmex californicus*), paper wasps (*Polistes spp.*), thread-waisted wasps (*Sphecid spp.*), metallic sweat bee (*Agopostemon texana*), leafcutting bee (*Megachile sp.*), and honey bee (*Apis mellifera*). A list of insects identified on the site is provided in Appendix A.

Special interest species observed on the site during the surveys include Cooper's hawk, loggerhead shrike, and San Diego black-tailed jackrabbit, all of which are California 'Species of Special Concern.'

SUMMARY AND CONCLUSIONS

The 60-acre project site contains approximately 50 acres of potential habitat. This habitat is of low quality due to the absence of loose Delhi series soils over most of the site, and a high level of disturbance due to past use of the site for sewage treatment and agricultural purposes, and ongoing weed abatement practices.

The DSF was not detected on or in the vicinity of the project site during the year 2001 focused survey or during the year 2000 focused survey (LSA, 2000). Thus per the 1996 guidelines, the DSF is considered absent from the 60-acre Regional Plant No. 3 Percolation Facility.

REFERENCES

- Hickman, J.C., ed. 1993. *The Jepson Manual: Higher Plants of California*. University of California Press, Berkeley and Los Angeles, CA. 1400 pp.
- LSA Associates, Inc. October 2001. *Focused Survey Report for the Delhi Sands Flower-loving Fly, Regional Plant No. 3 Percolation Facility, San Bernardino County, California*. Prepared for Inland Empire Utilities Agency.
- Soil Conservation Service. 1980. *Soil survey of San Bernardino County, Southwestern Part, California*. U.S. Department of Agriculture, Washington, D.C.
- U.S. Fish and Wildlife Service. 1996. *Interim General Survey Guidelines for the Delhi Sands Flower-loving Fly*. U.S. Fish and Wildlife Service, Carlsbad Field Office, Carlsbad, CA.
- U.S. Fish and Wildlife Service. 1997. *Delhi Sands Flower-loving Fly (Rhaphiomidas terminatus abdominalis) Recovery Plan*. U.S. Fish and Wildlife Service, Portland, OR. 51 pages.

**APPENDIX A -
PLANT AND ANIMAL SPECIES OBSERVED**

APPENDIX A - PLANT AND ANIMAL SPECIES OBSERVED

VASCULAR PLANT SPECIES OBSERVED

PLANTAE	PLANTS
MAGNOLIOPHYTA:	DICOT FLOWERING PLANTS
MAGNOLIOPSIDA	
Amaranthaceae	Amaranth family
<i>Amaranthus albus</i> *	Tumbleweed
Apocynaceae	Dogbane family
<i>Nerium oleander</i> *	Oleander
Asteraceae	Sunflower family
<i>Ambrosia acanthicarpa</i>	Annual bur-sage
<i>Artemisia californica</i>	California sagebrush
<i>Artemisia dracunculus</i>	Tarragon
<i>Baccharis salicifolia</i>	Mule fat
<i>Centaurea melitensis</i> *	Tocalote
<i>Conyza canadensis</i>	Common horseweed
<i>Gnaphalium stramineum</i>	Cotton-batting plant
<i>Hemizonia paniculata</i>	San Diego tarweed
<i>Heterotheca grandiflora</i>	Telegraph weed
<i>Lessingia filaginifolia</i>	California aster
<i>Stephanomeria sp.</i>	Stephanomeria
<i>Verbesina encelioides</i> *	Golden crownbeard
Boraginaceae	Borage family
<i>Amsinckia menziesii</i>	Common fiddleneck
Brassicaceae	Mustard family
<i>Hirschfeldia incana</i> *	Shortpod mustard
Chenopodiaceae	Saltbush family
<i>Atriplex semibaccata</i> *	Australian saltbush
<i>Salsola tragus</i> *	Russian thistle
Euphorbiaceae	Spurge family
<i>Eremocarpus setigerus</i>	Dove weed
Fabaceae	Pea family
<i>Lotus purshianus</i>	Spanish clover
Geraniaceae	Geranium family
<i>Erodium cicutarium</i> *	Red-stemmed filaree
Myrtaceae	Myrtle family
<i>Eucalyptus sp.</i> *	Eucalyptus
Oleaceae	Olive family
<i>Fraxinus sp.</i>	Ash
Polygonaceae	Buckwheat family
<i>Polygonum arenastrum</i> *	Common knotweed
Solanaceae	Nightshade family
<i>Datura wrightii</i>	Jimson weed
<i>Nicotiana glauca</i> *	Tree tobacco

Tenebrionidae	Darkling beetles
<i>Eleodes sp.</i>	Darkling beetle
LEPIDOPTERA	BUTTERFLIES AND MOTHS
Pieridae	Sulphurs and Whites
Subfamily Pierinae	Whites
<i>Pontia protodice</i>	Common (checkered) white
Subfamily Coliadinae	Sulphurs
<i>Colias eurytheme</i>	Alfalfa butterfly
Nymphalidae	Brush-footed and milkweed butterflies
Subfamily Nymphalinae	Brush-footed Butterflies
<i>Vanessa cardui</i>	Painted lady
Lycaenidae	Blues, Coppers, Hairstreaks, Metalmarks
Subfamily Lycaeninae	Blues, Coppers, Hairstreaks
Tribe Theclini	Hairstreaks
<i>Strymon melinus pudica</i>	Common (or gray) hairstreak
Tribe Polyommataini	Blues
<i>Brephidium exilis</i>	Pygmy blue
<i>Leptotes marina</i>	Marine blue
Hesperiidae	Skippers
Subfamily Hesperinae	Grass skipper
<i>Hylephila phyleus</i>	Fiery skipper
Subfamily Pyrginae	Duskywings, Checkered Skippers, etc.
<i>Pyrgus communis</i>	Common checkered skipper
DIPTERA	FLIES
Apioceridae	Flower-loving flies
<i>Apiocera chrysolasia</i>	Flower-loving fly
Asilidae	Robber flies
<i>Efferia albibarbis</i>	
unidentified sp.	
Mydidae	Midas flies
<i>Nemomydas pantherinus</i>	Midas fly
Bombyliidae	Bee flies
<i>Thyridanthrax atrata</i>	Bee fly
unidentified spp.	Bee fly
Syrphidae	Hover flies
<i>Copestylum mexicana</i>	Cactus fly
<i>Eristalis tenax</i>	Drone fly
Tephritidae	Fruit flies
<i>Ceratitis capitata</i>	Mediterranean fruit fly
Calliphoridae	Blow flies
<i>Phaenicia sp.</i>	Green bottle fly
Sarcophagidae	Flesh flies
<i>Sarcophaga haemorrhoidalis</i>	Flesh fly

MAGNOLIOPHYTA: LILLOPSIDA

Poaceae

*Avena barbata**
*Bromus diandrus**
*Bromus madritensis**
*Cynodon dactylon**
*Hordeum murinum**
*Lamarckia aurea**
*Schismus barbatus**
*Sorghum halepense**
*Vulpia myuros**

INSECTA

ODONATA

Aeshnidae

Aeshna multicolor
unidentified sp.

ORTHOPTERA

Acrididae

Psolessa sp.
Trimerotropis pallidipennis

MANTODEA

Stagmomantis californica

HETEROPTERA

Lygaeidae

Lygaeus kalmii

Pentatomidae

Chlorochroa sayi

Reduviidae

Zelus tetracanthus

HOMOPTERA

Cicadellidae

unidentified sp.

NEUROPTERA

Brachynemurus sp.

Coccinellidae

Coccinella novemnotata franciscana

Scarabaeidae

Cotinus mutabilis

MONOCOT FLOWERING PLANTS

Grass family

Slender wild oat
Common ripgut grass
Foxtail Chess
Bermuda grass
Hare barley
Goldentap
Mediterranean schismus
Johnsongrass
Foxtail fescue

INSECTS

DRAGONFLIES AND DAMSELFLIES

Darners

Multicolored darner
Darner

GRASSHOPPERS, CRICKETS, KATYDIDS

Short-horned grasshoppers

Short-horned grasshopper
Pallid band-wing

MANTIDS

California praying mantis

TRUE BUGS

Seed bugs

Seed bug

Stink bugs

Say's stink bug

Assassin bugs

CICADAS, HOPPERS, APHIDS, SCALE

INSECTS

Leafhoppers

Leafhopper

LACEWINGS, ANTLIONS,

DOBSONFLIES, SNAKEFLIES

Antlion

Ladybird beetles

Spotless nine-spotted ladybug

Scarab and June beetles

Green fruit beetle

HYMENOPTERA

Chrysididae

unidentified sp.

Tiphidae

Paratiphia sp.

Scoliidae

Campsomeris tolteca

Mutillidae

Dasymutilla sackeni

Dasymutilla spp.

Formicidae

Pogonomyrmex californicus

unidentified spp.

Vespidae

Polistes apachus

Polistes exclamans

Polistes fuscatus

Sphecidae

Subfamily Sphecinae

Tribe Sceliphronini

Chalybion californicum

Sceliphron caementarium

Tribe Sphecini

Ammophila sp.

Tribe Ammobiini

Prionyx foxi

Subfamily Nyssoninae

Tribe Bembicini

Bembix comata

Bicyrtes ventralis

Subfamily Philanthinae

Tribe Cercerini

Cerceris sp.

Halictidae

Subfamily Halictinae

Tribe Halictini

Agapostemon texana

Halictus ligatus

Lasioglossum sp.

Megachilidae

Subfamily Megachilinae

Tribe Megachilini

Megachile sp.

BEEES, WASPS, ANTS

Cuckoo wasps

Cuckoo wasp

Tiphid wasps

Tiphid wasp

Scoliid wasps

Toltec scoliid

Velvet ants

White velvet ant

Velvet ants

Ants

Red harvester ant

Ant

Paper wasps

Paper wasp

Zebra paper wasp

Golden polistes

Sphecid wasps

Thread-waisted wasps

Blue mud wasp

Mud dauber

Thread-waisted wasp

Thread-waisted wasp

Sand wasp

Sand wasp

Sphecid wasp

Halictid bees

Metallic sweat bee

Halictid bee

Halictid bee

Leafcutting bees

Leafcutting bee

Anthophoridae	Digger, cuckoo, and carpenter bees
<i>Anthophora nomada</i>	Digger bee
Tribe Eucerini	
<i>Melissodes sp.</i>	Digger bee
Subfamily Xylocopinae	Carpenter bees
<i>Ceratina sp.</i>	
Tribe Xylocopini	
<i>Xylocopa californica</i>	Carpenter bee
Apidae	Bumble and honey bees
Subfamily Apinae	Honey bees
<i>Apis mellifera</i>	Honey bee
Subfamily Bombinae	Bumble bees
<i>Bombus sp.</i>	Bumble bee

The above list represents insects observed during the survey and identified. It is not intended to be a complete list of insects on the project site.

REPTILIA

Phrynosomatidae

Uta stansburiana

Teiidae

Cnemidophorus tigris

REPTILES

Phrynosomatid Lizards

Side-blotched lizard

Whiptails

Western whiptail

AVES

Accipitridae

Accipiter cooperii

Buteo jamaicensis

Circus cyaneus

Falconidae

Falco sparverius

Columbidae

*Columba livia**

Zenaida macroura

Strigidae

Bubo virginianus

Trochilidae

Calypte anna

Tyrannidae

Sayornis nigricans

Sayornis saya

Tyrannus verticalis

Laniidae

Lanius ludovicianus

Corvidae

BIRDS

Kites, Hawks, and Eagles

Cooper's hawk

Red-tailed hawk

Northern harrier

Falcons

American kestrel

Pigeons and Doves

Rock dove

Mourning dove

Typical Owls

Great horned owl

Hummingbirds

Anna's hummingbird

Tyrant Flycatchers

Black phoebe

Say's phoebe

Western kingbird

Shrikes

Loggerhead shrike

Crows and Ravens

**APPENDIX B -
BIOLOGICAL DATA SHEETS**

<i>Corvus brachyrhynchos</i>	American crow
<i>Corvus corax</i>	Common raven
Hirundinidae	Swallows
<i>Hirundo rustica</i>	Barn swallow
Aegithalidae	Bushtits
<i>Psaltriparus minimus</i>	Bushtit
Mimidae	Mimic Thrushes
<i>Mimus polyglottos</i>	Northern mockingbird
Sturnidae	Starlings
<i>Sturnus vulgaris*</i>	European starling
Icteridae	American Orioles and Blackbirds
<i>Sturnella neglecta</i>	Western meadowlark
Fringillidae	Finches
Passeridae	Old World Sparrows
<i>Passer domesticus*</i>	House sparrow

MAMMALIA

LAGOMORPHA

Leporidae

Lepus californicus

Sylvilagus audubonii

RODENTIA

Spermophilus beecheyi

Canidae

Canis latrans

Canis familiaris

MAMMALS

LAGOMORPHS

Rabbits and Hares

Black-tailed jackrabbit

Desert cottontail

RODENTS

California ground squirrel

Dogs, foxes and allies

Coyote

Feral domestic dog

ANIMALS

This is a list of the butterflies, bony fishes, amphibians, reptiles, birds and mammals noted in the study area by LSA biologists. Presence may be noted if a species is seen or heard, or identified by the presence of tracks, scat or other signs.

* - Non-native

BIRDS

Taxonomy and nomenclature follow American Ornithologists' Union (1998, Check-list of North American Birds, 7th edition, American Ornithologists' Union, Washington, D.C).

PLANTS

Taxonomy and scientific nomenclature follow Hickman (1993); common names primarily follow Roberts (1998) and Hickman (1993).

* - Non-native

BIOLOGICAL EVALUATION DATA SHEET

Project Name IEU Plant # 5 Project # IEU 030 Survey Type DSF #1

Location/Site I.D. # Southern of Intersection of Curran & Birch, Fontana

Biologist(s) Devin Woodard Date 1 August 2001 Time (start) 1030 (end) 1400

Weather (cloud cover, est. wind speed/direction, precipitation) Clear, warm & hot, Wind NW 1-3 mph.

Air Temp. (°F) 22°C (end) 30°C Photo # _____
(start)

General Site Conditions (topography, soils, aspect/slope, vegetation/plant communities):
Habitat quality is generally poor as a result of the site being used as a Retention Basin in the past. The northern half of the site has no loose sand and is compacted & gravelly. The south half of the site has some loose sandy soils near the structures & holding tanks on site. The western portion has 100% non-native grassland cover.

Existing Habitat Quality: Poor Fair Moderate Good Pristine

Adjacent Land Uses:

North:
South:
East:
West:

Animal Species Present (observed, detected, activity):
Noma Checked Red White
LEGO Beely spp.
IT&FI Polistes spp.
[ASH] Hivester Ant
Field Skipper
S. beccalyi
Side-blotched Lizard
Western Wh. Cat

Plant Species Present:

Notes: (use reverse side for additional site information)
collected -

BIOLOGICAL EVALUATION DATA SHEET

Project Name Plant # 3 Project # IEU030 Survey Type DSF E 2

Location/Site I.D. # _____

Biologist(s) Denise Woodford Date 7 August 2001 Time (start) 1000 (end) 1400

Weather (cloud cover, est. wind speed/direction, precipitation) clear, hot, wind west
5-8 mph

Air Temp. (°F) (start) 34°C (end) 35°C Photo # _____

General Site Conditions (topography, soils, aspect/slope, vegetation/plant communities):

Existing Habitat Quality: Poor Fair Moderate Good Pristine

Adjacent Land Uses:

North:

South:

East:

West:

Animal Species Present (observed, detected, activity):

<u>Chickadee white</u>	<u>fiery flycatcher</u>	<u>MDDO</u>	<u>WE ME</u>
<u>Polioptila sp.</u>	<u>Bee fly sp.</u>	<u>WASW</u>	<u>Lepus californicus</u>
<u>And Linn</u>	<u>House sp.</u>	<u>MDFI</u>	
<u>Azilia sp.</u>	<u>Scy's stick bug</u>	<u>Uta (common)</u>	
<u>T. arizonensis</u>		<u>sc. beakly</u>	
<u>Villa atitana</u>		<u>EUST</u>	
		<u>NDMO</u>	

Plant Species Present:

Notes: (use reverse side for additional site information)

BIOLOGICAL EVALUATION DATA SHEET

Project Name Blair Hill Project # IEU03e Survey Type DSFH3

Location/Site I.D. # _____

Biologist(s) Jonice Woodard Date 9 August 2001 Time (start) 1000 (end) 1400

Weather (cloud cover, est. wind speed/direction, precipitation) _____

Air Temp. (°F) 27°C (start) (end) 31°C Photo # _____

General Site Conditions (topography, soils, aspect/slope, vegetation/plant communities):

Existing Habitat Quality: Poor Fair Moderate Good Pristine

Adjacent Land Uses:

North:

South:

East:

West:

Animal Species Present (observed, detected, activity):

Herbigian bug	Tiny orange ant	Asilid sp.	Uta	Lepus californicus
Harvester Ants	midco fly sp.		HDFI	Mus mus domesticus
Pier sk. paper	Trinicrotopis		Sbaely	NH AR
checkered white	Alfalfa sulphur		DIPH	Western L. Hptc.
bombix comete	Beetle sp.		BASW	
			SA PHT	
			ANHU	

Plant Species Present:

Notes: (use reverse side for additional site information)

BIOLOGICAL EVALUATION DATA SHEET

Project Name Plant #3 Project # IEU030 Survey Type DJFH 4

Location/Site I.D. # _____

Biologist(s) Verice Woodard Date 14 Aug 2001 Time (start) 1015 (end) 1400

Weather (cloud cover, est. wind speed/direction, precipitation) clear, hot, wind west
5-8 mph

Air Temp. (°F) 33°C (end) 36°C Photo # _____
(start)

General Site Conditions (topography, soils, aspect/slope, vegetation/plant communities):

Existing Habitat Quality: Poor Fair Moderate Good Pristine

Adjacent Land Uses:

North:

South:

East:

West:

Animal Species Present (observed, detected, activity):

checkered white Ladybug
morning blue Green Decid beetle
mides fly sp. Fairy skiffier
Pallidus sp. muscid fly sp.
Vulva + Ant (Red ♂) Ben six cometa

JASW
AMCR
GITOW ♀
NOMO
WEKI
HIFI
JMKIE
JLPH
Utu

Plant Species Present:

Notes: (use reverse side for additional site information)

BIOLOGICAL EVALUATION DATA SHEET

Project Name Diner + HS Project # IEU03c Survey Type DEFHS

Location/Site I.D. # _____

Biologist(s) Unisa Wood et al. Date 17 Aug - 11-3-2001 Time (start) 1030 (end) 1400Weather (cloud cover, est. wind speed/direction, precipitation) clear, hot 95 h¹⁹, wind
west 3-5 mphAir Temp. (°F) _____ (start) 34°C (end) 39°C Photo # _____

General Site Conditions (topography, soils, aspect/slope, vegetation/plant communities):

Existing Habitat Quality: Poor Fair Moderate Good Pristine

Adjacent Land Uses:

North:

South:

East:

West:

Animal Species Present (observed, detected, activity):

CA flying mouse
 Green scarab beetle
 black/red white
 Polistes sp.
 Bee fly sp.
 Cicada beetle

UFA
 HOFI
 BASW
 RoDo
 Woma
 RT HA
 AMCR
 Sib-echoy

Plant Species Present:

Notes: (use reverse side for additional site information)

BIOLOGICAL EVALUATION DATA SHEET

Project Name Plant #5 Project # IEV030 Survey Type DSFH 6

Location/Site I.D. # _____

Biologist(s) Dan Wood Date 27 August 2001 Time (start) 1015 (end) 1400

Weather (cloud cover, est. wind speed/direction, precipitation) hazy to clearing. warm to hot. Wind West 5-8 mph.

Air Temp. (°F) 25°C (start) (end) 27°C Photo # _____

General Site Conditions (topography, soils, aspect/slope, vegetation/plant communities):

Existing Habitat Quality: Poor Fair Moderate Good Pristine

Adjacent Land Uses:

North:

South:

East:

West:

Animal Species Present (observed, detected, activity):		Hoff / S. black
Green scarab beetle	dragon fly (orange scaled)	COBA
Dorling beetle	Behix cecate	MOD 0
Polistes SP.	Fair skinner	AMHU
Sphex SP.	muscid fly	DASW
Chloroceryle white	Muscid SP.	Uta
A. + Lion		

Plant Species Present:

Notes: (use reverse side for additional site information)

BIOLOGICAL EVALUATION DATA SHEET

Project Name Phase # 3 Project # IEU050 Survey Type DSF # 7

Location/Site I.D. # _____

Biologist(s) Denise Woodard Date 24 Aug. 2001 Time (start) 1000 (end) 1400
metallic bluewinged

Weather (cloud cover, est. wind speed/direction, precipitation) hazy to clearing, wet,
Wind West 3-5 mph

Air Temp. (°F) _____ (start) 29°C (end) 31°C Photo # _____

General Site Conditions (topography, soils, aspect/slope, vegetation/plant communities):

Existing Habitat Quality: _____ Poor Fair Moderate Good Pristine

Adjacent Land Uses:

North:

South:

East:

West:

Animal Species Present (observed, detected, activity):

Harvester Ant	Pilister sp.	Dragonfly sp.
Green Scorpion Beetle	Muscid fly sp.	Megachile bee
Pambix cornuta	Ascidid sp.	Metallic Blue wasp
Spectral sp.	Painted Lady	Field Skipper
Chalcid white	Honey bee	

Audubon's catbird, l.
 WFM E
 Uta

Plant Species Present:

Notes: (use reverse side for additional site information)

BIOLOGICAL EVALUATION DATA SHEET

Project Name Dione # 3 DJF Project # _____ Survey Type DJF # 8

Location/Site I.D. # _____

Biologist(s) Denise L. Jordan Date 30 August 2001 Time (start) 1000 (end) 1400Weather (cloud cover, est. wind speed/direction, precipitation) Clear, hot, Wind
West @ 3mphAir Temp. (°F) _____ (start) 26°C (end) 28°C Photo # _____

General Site Conditions (topography, soils, aspect/slope, vegetation/plant communities):

Existing Habitat Quality: _____ Poor Fair Moderate Good Pristine

Adjacent Land Uses: _____

North: _____

South: _____

East: _____

West: _____

Animal Species Present (observed, detected, activity):

<u>Harvester Ant</u>	<u>Apocorn</u>	<u>WEKI</u>
<u>Trinacrotropis</u>	<u>Honey Bee</u>	<u>HDFI</u>
<u>Black-red Wasp</u>	<u>Polistes sp.</u>	<u>S. buckleyi</u>
<u>Scorpius carolinensis</u>	<u>Dragonfly sp.</u>	<u>Uta</u>
<u>Painted Lady</u>		

Plant Species Present: _____

Notes: (use reverse side for additional site information)

BIOLOGICAL EVALUATION DATA SHEET

Project Name Plant # 3 Project # IEU030 Survey Type DSF #13

Location/Site I.D. # _____

Biologist(s) Dennis Woodard Date 14 Sept 1991 Time (start) 1000 (end) 1400

Weather (cloud cover, est. wind speed/direction, precipitation) _____

Air Temp. (°F) 89°F (end) 94°F Photo # _____
(start)

General Site Conditions (topography, soils, aspect/slope, vegetation/plant communities):

Existing Habitat Quality: Poor Fair Moderate Good Pristine

Adjacent Land Uses:

North:

South:

East:

West:

Animal Species Present (observed, detected, activity):

Animal Species Present (observed, detected, activity):	Name	Use
Musical fly	fly skipper	DLPH
Rubber fly sp.	Harvester ant	MOFI
Flesh fly	Polistes sp.	BUJH
Rubber fly (white stripe)	Sphex sp.	COHA
Lady bug		BASW

Plant Species Present:

Notes: (use reverse side for additional site information)

BIOLOGICAL EVALUATION DATA SHEET

Project Name Plant #3 Project # IEU030 Survey Type DEF #14

Location/Site I.D. # _____

Biologist(s) Denise Woodard Date 20 Sept 2001 Time (start) 1030 (end) 1400

Weather (cloud cover, est. wind speed/direction, precipitation) hazy fog (70%) to clear,
warm, wind northwest 5-8 mph

Air Temp. (°F) 70°F (end) 77°F Photo # _____
(start)

General Site Conditions (topography, soils, aspect/slope, vegetation/plant communities):

Existing Habitat Quality: Poor Fair Moderate Good Pristine

Adjacent Land Uses:

North:

South:

East:

West:

Animal Species Present (observed, detected, activity):

<u>Ficopk.ppor</u>	<u>metallic black cat sp</u>	<u>Prune fly</u>
<u>Dembix conata</u>	<u>Honey bee</u>	
<u>Harvester Ant</u>	<u>Dee fly sp.</u>	
<u>Pelister sp.</u>	<u>Muscid fly</u>	
<u>Spkaid sp</u>	<u>Ago Proteran</u>	

msDo S. bae. ch. sp.
HuAI Uta
RTHA
BASW
EUST

Plant Species Present:

Notes: (use reverse side for additional site information)

BIOLOGICAL EVALUATION DATA SHEET

Project Name Plant #7 DSF Project # FE0030 Survey Type DSF #12

Location/Site I.D. # _____

Biologist(s) Denise Woodard Date 13 Sept. 2001 Time (start) 1015 (end) 1400

Weather (cloud cover, est. wind speed/direction, precipitation) clear, hot, Wind West + 1-3 mph.

Air Temp. (°F) (start) 82°F (end) 84°F Photo # _____

General Site Conditions (topography, soils, aspect/slope, vegetation/plant communities):

Existing Habitat Quality: Poor Fair Moderate Good Pristine

Adjacent Land Uses:

North:

South:

East:

West:

Animal Species Present (observed, detected, activity):

Chalcidred White	Robber fly sp.	SLPH	COHA
Orange-darner	Agapostemon	COHA	KIDE
Dain red Lady	Leaf hopper	HOSP	Uta
Fairy skipper	Assassin bug	HDFI	
darkling beetle	meag. fly sp.	EUST	
Velvet Ant (White ♀)	Pyralis (ox)	BUSH	
		AMHU	

Plant Species Present:

Notes: (use reverse side for additional site information)

BIOLOGICAL EVALUATION DATA SHEET

Project Name Plant EC Project # 2EUE30 Survey Type Def E11

Location/Site I.D. # _____

Biologist(s) Jessica Woodard Date 8 Sept. 2001 Time (start) 1015 (end) 1400

Weather (cloud cover, est. wind speed/direction, precipitation) overcast (50%) 70c/100f, wind to hit, wind west 2-5 mph.

Air Temp. (°F) 24°C (end) 26°C Photo # _____
(start)

General Site Conditions (topography, soils, aspect/slope, vegetation/plant communities):

Existing Habitat Quality: Poor Fair Moderate Good Pristine

Adjacent Land Uses:

North:

South:

East:

West:

Animal Species Present (observed, detected, activity):

Fly sk. sp. 2	Pentix c. m. m. m.
fly orange an	Helveta ant (Red ♂)
H. vesper ant	dragon fly sp
checkered white	midges fly
Black Ant	

HOPI	Amk c
EUST	NE IC I
KIDE	Audubon's rattentail
NOMO	COHA
MOOD	RODO
UWA	BUJH

Plant Species Present:

Notes: (use reverse side for additional site information)

BIOLOGICAL EVALUATION DATA SHEET

Project Name Plant #3 Project # _____ Survey Type DIF # 9

Location/Site I.D. # _____

Biologist(s) Denise Woodward Date 31 Aug, 2001 Time (start) 1000 (end) 1400

Weather (cloud cover, est. wind speed/direction, precipitation) clear, hot, wind
West 5-8 mph

Air Temp. (°F) _____ (start) 28°C (end) 29°C Photo # _____

General Site Conditions (topography, soils, aspect/slope, vegetation/plant communities):

Existing Habitat Quality: _____ Poor Fair Moderate Good Pristine

Adjacent Land Uses:

North:

South:

East:

West:

Animal Species Present (observed, detected, activity):

<u>Trimerotropis</u>	<u>Sphelid sp.</u>	<u>Asilid sp.</u>
<u>Fery St. PPR</u>	<u>Stenobothrus</u>	<u>metallic blue wasp</u>
<u>checkered white</u>	<u>muscid fly</u>	
<u>Painted Lady</u>	<u>dragonfly spp</u>	
<u>Polistes sp</u>	<u>Andrena sp.</u>	

Plant Species Present:

Notes: (use reverse side for additional site information)

BIOLOGICAL EVALUATION DATA SHEET

Project Name Plant #3 Project # 1E0230 Survey Type DEFH 10

Location/Site I.D. # _____

Biologist(s) Veronica Wood et al Date 7 Sept 2001 Time (start) 1030 (end) 1400Weather (cloud cover, est. wind speed/direction, precipitation) Haze (70%) to clear,
warm, wind 1.1 to 5-8 mph.Air Temp. (°F) _____ (start) 23°C (end) 25°C Photo # _____

General Site Conditions (topography, soils, aspect/slope, vegetation/plant communities):

Existing Habitat Quality: _____ Poor Fair Moderate Good Pristine

Adjacent Land Uses: _____

North: _____

South: _____

East: _____

West: _____

Animal Species Present (observed, detected, activity):

Harvester Ant	Common hairy streak	HOF1	AN H0
Ruby skipper	Bombix cometa	MO20	
Syrphid fly	Green scarab beetle	AMCK	
Drone fly		NO M0	
Painted lady		EUST	
		UtA	

Plant Species Present: _____

Notes: (use reverse side for additional site information)



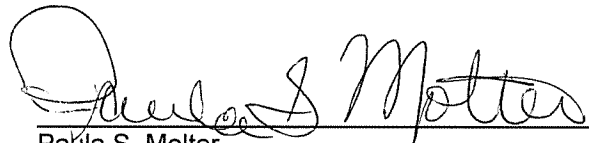
CHINO BASIN WATERMASTER

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April 12, 2007

I, Paula S. Molter, am an employee of the Chino Basin Watermaster ("Watermaster"). As part of its normal course of business, Watermaster maintains a library of documents relevant to the Chino Groundwater Basin and Watermaster's role as the arm of the Court administering the Chino Basin Judgment. It is part of my regular duties to retrieve such documents from the library in response to requests from various parties.

I hereby certify that the attached document, titled ***Focused Survey Report for the Delhi Sands Flower-Loving Fly (RP-3) LSA Associates Oct. 2001*** is a full, true and accurate copy of that document, on file and of record in the Watermaster library.



Paula S. Molter