

QUINO CHECKERSPOT BUTTERFLY
(*Euphydryas editha quino*)
FOCUSED SURVEY REPORT
FOR THE SAN DIEGO GAS & ELECTRIC
CLEVELAND NATIONAL FOREST PROJECT
SAN DIEGO COUNTY, CALIFORNIA

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TABLE OF CONTENTS

	Page
SECTION 1.0 – INTRODUCTION	1
1.1. PROJECT DESCRIPTION	1
1.2. SURVEY AREA.....	1
1.3. QCB BACKGROUND INFORMATION	1
SECTION 2.0 – METHODOLOGY.....	4
2.1. HABITAT ASSESSMENT	4
2.2. FOCUSED SURVEYS	4
SECTION 3.0 – RESULTS	6
3.1. GPS LOCATIONS AND HABITAT DESCRIPTION FOR QCB OBSERVED	6
SECTION 4.0 – CONCLUSIONS AND RECOMMENDATIONS.....	7
SECTION 5.0 – SELECTED REFERENCES.....	8

LIST OF APPENDICES

APPENDIX A: Project and QCB Location Maps
APPENDIX B: Butterfly Species Observed
APPENDIX C: Photo Pages
APPENDIX D: QCB Survey Data Table
APPENDIX E: Survey Results Map of QCB Host Plant Locations
APPENDIX F: QCB General Forms
APPENDIX G: QCB Biologists' Signature Pages

LIST OF TABLES

	Page
Table 1: USFWS-Permitted QCB Biologists	5
Table 2: GPS Locations of QCB Observed	6
Table 3: Acreage Breakdown of QCB Survey by ROW, CNF, and USFWS Occupied Habitat	7

LIST OF ACRONYMS

BA/BE:	Biological Assessment/Biological Evaluation
CNF:	Cleveland National Forest
DEV:	Developed
EIS:	Environmental Impact Statement
GIS:	Geographic Information System
GPS:	Global Positioning System
Project:	San Diego Gas & Electric Cleveland National Forest Project
QCB:	Quino Checkerspot Butterfly
ROW:	Right-of-Way
SDG&E:	San Diego Gas and Electric
SMC:	Southern Mixed Chaparral
TL:	Tie Line
USFS:	United States Forest Service
USFWS:	United States Fish and Wildlife Service

SECTION 1.0 – INTRODUCTION

1.1. PROJECT DESCRIPTION

The Cleveland National Forest (CNF) is requesting an Environmental Impact Statement (EIS) for a Master Special Use Permit to be issued to the San Diego Gas & Electric Company (SDG&E) to assist the CNF in making necessary findings with regard to fire and public safety to cover operation and maintenance of existing electric distribution and transmission lines, appropriate access roads, and facilities. The Master Use Permit would include conditions necessary for resource protection. The CNF is contemplating moving forward with an Increased Fire Prevention Plan that would involve operational and equipment upgrades and improvements to the existing lines traversing the CNF. The Action Area is based on the elements of the Fire Prevention Plan Proposed Action that would result in physical ground disturbing impacts or that could have secondary impacts to sensitive species. In addition to the data gathered from the surveys, the United States Forest Service (USFS) Biological Assessment/Biological Evaluation (BA/BE) for the CNF will be used to support this effort and report analysis.

The objective of this study was to determine the presence or absence of Quino checkerspot butterfly (*Euphydryas editha quino*; QCB) and suitable QCB habitat along the proposed Project transmission line right-of-way (ROW).

1.2. SURVEY AREA

The Action Area is located within the Trabuco, Palomar, and Descanso Ranger Districts, in the CNF, California. Maintenance and repairs of the facilities within the Action Area are necessary because the existing SDG&E authorizations are expired and the existing power lines are needed to supply power to local communities, residents, and government owned facilities located within and adjacent to the CNF. The Action Area for the proposed project includes three types of power lines: overhead transmission lines, overhead distribution lines, and underground distribution lines. To adequately cover the Action Area for the focused biological survey effort, the Survey Area is based on 1) a 250-ft radius around each pole having an angle greater than 2 degrees and 2) within 150-ft of the pole line centerline along both sides of the pole line, continuously, for all other poles for the entire length of each project. **Appendix E** contains maps showing the host plant locations within the Project survey areas.

1.3. QCB BACKGROUND INFORMATION

The following QCB background information was written by QCB-permitted biologist Ken Osborne (Chambers Group 2010).

The QCB, a subspecies of Edith's checkerspot, is a small brush-footed butterfly (family Nymphalidae) that flies once a year. Like most *Euphydryas* sp., it has a small, approximately 2.5 to 4 cm wingspan and is checkered with black, red, and yellowish markings. This species is distributed in local colonies over much of western North America (Scott 1986, Parmesan 1996). Many subspecies have been described including at least 18 from California (Garth and Tilden 1986, Emmel et al. 1998).

QCB colonies are primarily associated with low elevation (sea level to 3,000 feet) open grasslands, vernal pools, and sunny openings within chaparral, coastal-sage scrub, and juniper woodlands. Colonies are found frequently near clay soils and soils that possess cryptogamic crusts (soil infused with algae and

lichen in the soil surface) (Osborne 1998). QCB distributions closely approximate the distributions of the primary larval host plant, dot-seed plantain (*Plantago erecta*, Plantaginaceae) also known as dwarf plantain. Recently discovered, higher elevation QCB populations (Pratt et al. 2001) have been found to use woolly plantain (*Plantago patagonica*, Plantaginaceae), Coulter's snapdragon (*Antirrhinum coulterianum*, Plantaginaceae), bird's beak (*Cordylanthus rigidus*, Orobanchaceae), and *Collinsia concolor* (southern Chinese houses, Plantaginaceae) (Pratt and Pierce 2010). Purple owls' clover (*Castilleja exserta*, Orobanchaceae) is also known to be used by larvae occasionally and may also represent an ovipositional substrate. Larvae may use other plantain (*Plantago*) species (e.g. *P. ovata*, and *P. insularis*) as well. Introduced Mediterranean plantain species such as *P. lanceolata* and *P. major* - common weeds of residential lawns and city lots - although suitable in the laboratory (Osborne 2009), and used by some wild *E. editha* populations in Oregon, are not likely used where they occur in habitats not frequented by QCB. Nevertheless, these exotic host plants may be of potential use to QCB where they occur in wild habitats proximal to QCB populations. Although QCB are oligophagous (feed upon a limited range of plant species) and feed primarily upon plants contained within the Orobanchaceae (formerly Scrophulariaceae) and Plantaginaceae families, most local populations tend to be monophagous (feed on only one plant species) (White 1974, Scott 1986).

QCB mating activity occurs in or near the meadows, clearings, and open areas on slopes and ridgelines inhabited by the host plants, where the larvae previously developed, and on open or sparsely vegetated hilltops, ridgelines, and occasionally rocky hilltops (with or without the host plant being present nearby). Inordinately large numbers of adult males are found on hilltops (usually only one or two per hilltop), where they exhibit "territorial behavior" – flying sorties from various perches to chase other butterflies, including conspecifics. QCB males often chase each other high into the air, only to return to different parts of the hilltop. Hilltopping, where male butterflies await the arrival of unmated females in order to secure mates, is common in many species of butterflies and the behavior in QCB is well known among experienced southern California lepidopterists (Shields 1967). When QCB adult densities are relatively low, mating success derived from facultative hilltopping behavior may be critical to long term viability.

Females lay egg masses that contain approximately 20-75 eggs and may produce up to 1,200 eggs in several batches during their lifetime. The eggs hatch in about ten days under favorable conditions and the larvae immediately begin to feed. In coastal California, the early larval stages undergo an obligatory aestival diapause (dormant period from late spring through winter), which is broken after fall or winter rains (Murphy and White 1984, Osborne 1998). The larvae then quickly complete their development, usually on the native annual plant dot-seed plantain, and emerge as adults during the same spring (Emmel and Emmel 1973, White 1974, Orsak 1977, Murphy and White 1984, Mattoni et al. 1997). Adult flight typically occurs between late January and mid-May, with peak activity generally in March and April. The flight period varies from year to year, depending upon the annual rainfall and other weather conditions. The timing and abundance of rainfall are important factors affecting the timing of host seed germination, growth, maturity, and senescence of the host plant (Murphy and White 1984, Dobkin et al. 1987), which in turn affects the survivorship of the larvae (Singer 1972, Ehrlich et al. 1980). Solar insolation on hillsides (determined in part by topography), where the larvae live, affects both the rate of host development and that of the larvae (White 1974, Weiss et al. 1988). In the race against host senescence, post-diapause larvae seek microclimates with high solar insolation in order to bask (Osborne 1998, Osborne and Redak 1999). This behavior increases their rate of development (Weiss et al. 1987). During periods of extended drought, the butterfly's populations decline and individual butterflies may become difficult to find. It is hypothesized that extended periods of diapause, lasting up to five or six years, occur during these droughts.

Populations of QCB, which were once distributed through much of lowland coastal southern California from northern Baja California, Mexico to Point Dume, Los Angeles County, have been declining since the late 1960's (Thorne 1970, Emmel and Emmel 1973, Orsak 1977, 1988). It has been hypothesized that this decline is primarily due to habitat loss by urban and agricultural expansion (Thorne 1970, Emmel and Emmel 1973, Orsak 1988), and possibly because of global warming and drought (Parmesan 1996), fire and overgrazing (Orsak 1977, 1988). After an extended drought in the late 1980's and early 1990's, only one known population of QCB remained. Populations are now known to exist only at a few sites, in small isolated colonies, in southwestern Riverside and southern San Diego Counties. The decline of QCB may have started long before these modern observations after the early Spanish explorers and settlers introduced exotic grasses and forbs. These plants are highly competitive with the native QCB host plants (Proctor and Woodwell 1975). QCB received federal protection under the Endangered Species Act in 1997 (United States Federal Register, January 17, 1997) and is currently federal-listed as endangered.

SECTION 2.0 – METHODOLOGY

2.1. HABITAT ASSESSMENT

The purpose of the QCB habitat assessment was to determine the degree and nature of gross vegetation cover in order to assess potential for QCB occurrence on the Project site.

Prior to QCB focused surveys in 2010, permitted biologist Michael Klein (TE-837760-6) conducted a QCB habitat assessment in accordance with the United States Fish and Wildlife Service (USFWS) *Quino Checkerspot Survey Protocol Information* (USFWS, 2002). Mr. Klein surveyed the Project route by helicopter, which allowed for an efficient and comprehensive aerial search of the Project landscape. The helicopter flew low enough over the Project site to allow for visual determination of the ground cover type and vegetation density. The helicopter was determined by USFWS to be a suitable method of conducting a protocol habitat assessment except within Peninsular bighorn sheep habitat (Anderson and Sirchia 2009). The helicopter QCB habitat assessment was ground-truthed by each QCB survey biologist (**Table 1**) on foot within each biologist's assigned survey segment. In order to minimize disturbance to Peninsular bighorn sheep, the habitat assessment was conducted entirely on foot within habitat for this species.

Handheld Global Positioning System (GPS) units and aerial maps were used to outline portions of the Project route that would be surveyed during the 2010 QCB focused surveys. Information characteristic of QCB-occupied habitat, including locations of breaks in vegetation, rocky outcrops, and hilltops, were noted and mapped. Areas that were DEV, contained closed-canopy, general agricultural (AG-G), or non-native vegetation (NNV), or were unsafe to access were mapped and excluded from focused surveys. The remaining habitat along the Project route was deemed appropriate to survey. Section 2.2 describes methods used for conducting the focused surveys.

2.2. FOCUSED SURVEYS

The QCB focused surveys were conducted in accordance with protocol set forth by the USFWS *Quino Checkerspot Survey Protocol Information* (USFWS, 2002) and the USFWS *Year 2005 Quino Survey Areas*. In addition, USFWS reference material concerning reference sites, recommended survey areas, critical habitat designations, and conservation plans (USFWS 2002-2009) was reviewed before performing the surveys. Each survey segment was surveyed weekly at a minimum of five times during the QCB flight season. Certain segments were surveyed more than five times depending on QCB host plant conditions, nectar source availability, and whether QCB were still seen flying at nearby reference sites beyond the fifth survey. If a QCB was detected at a site during the first five surveys, additional surveys were not required. If a QCB was not detected during the first five surveys but the QCB flight season continued (as determined by conditions listed above), then additional surveys were conducted through the end of the flight season.

Surveys were conducted at an approximate rate of 10 to 15 acres per hour when temperatures were above 60 degrees Fahrenheit on a clear, sunny day or 70 degrees Fahrenheit on an overcast or cloudy day. In the field, temperatures were measured in the shade and warmer conditions prevailed under sunlight where butterflies are active. In addition, surveys were generally conducted between the hours of 0900 and 1600. If weather conditions were unsuitable for a survey, two surveys on non-consecutive days were conducted during the following week. If weather conditions were unsuitable for two weeks in a row, two surveys were conducted on non-consecutive days during each of the following two weeks.

Experienced biologists identified QCB, sometimes using binoculars, cameras, and butterfly nets for butterfly identification. QCB locations were taken using handheld GPS units and mapped on aerial photographs by Geographic Information System (GIS). Plant communities and QCB host plants were also mapped. Photographs were taken of suitable QCB habitat and observed QCB. All butterfly species were recorded on standardized field data sheets.

Potential QCB habitat for the protocol focused surveys was divided up amongst 20 USFWS permitted QCB biologists (**Table 1**).

Table 1: USFWS-Permitted QCB Biologists

USFWS-Permitted QCB Biologists	
<i>Biologist</i>	<i>USFWS Permit Number</i>
Adam Behl	TE-797999-7.1
Andrew McGinn Forde	TE-062907-4
Andy Pignuolo	TE-053020-1
Antonette Gutierrez	TE-797999-7.1
Chet McGaugh	TE-836517-5
David King	TE-785148-7
Diana Jensen	TE-797999-7.1
Frank Dittmer	TE-225939-0
Greg Chatman	TE-075112-1
Jane Higginson	TE-797999-7.1
John Green	TE-054011-4
Kyle Ince	TE-797999-7.1
Laurie Gorman	TE-233367-0
Martha Heath	TE-099005-1
Maya Mazon	TE-233332-0
Melissa Booker	TE-797999-7.1
Melissa Busby	TE-080779-1
Michael Klein	TE-837760-6
Michael Wilcox	TE-836491-5
Natalie Brodie	TE-135948-0
Nathan Moorhatch	TE-029414-2
Nicole Kimball	TE-053598-3
Rob Fletcher	TE-231425-0
Sarah Farmer	TE-192708-1
Steve Meyers	TE-804203-9
Stephen Rink	TE-797999-7.1

SECTION 3.0 – RESULTS

During the 2010 QCB focused surveys for the SDG&E CNF Project, no QCB were observed on the Project ROW, and two (2) QCB were observed on a hilltop adjacent to an access road for tie line (TL) 6923. Three (3) additional QCB were observed on the same hilltop during the 2010 QCB focused surveys for the Sunrise Powerlink Project (Chambers Group 2010) in areas where there was overlap in the survey area for both projects. Note that QCB had been found in this same location during the 2009 Chambers Group focused surveys for the Sunrise Powerlink Project as well (Chambers Group 2009). **Section 3.1** below includes GPS locations (**Table 2**) and a habitat description for the area where QCB were observed.

Appendix A contains aerial images of the project site with the location of QCB observations labeled. **Appendix B** contains a list of all butterfly species observed on the Project route during the focused surveys. Species nomenclature follows that of *Systematics of Western North American Butterflies* (Emmel 1998). Photographs of QCB and their habitat observed onsite are provided in **Appendix C**. A data table of survey locations and results is provided in **Appendix D**. QCB host plant patches found during focused surveys are mapped on aerial photographs provided in **Appendix E**. **Appendix F** contains field observation data sheets. **Appendix G** contains signature pages from each permitted QCB biologist to certify that the results and conclusions discussed in this report are complete and accurate.

3.1. GPS LOCATIONS AND HABITAT DESCRIPTION FOR QCB OBSERVED

Table 2: GPS Locations of QCB Observed

Observation Number	Date of Observation	GPS Location (NAD 83, UTM)	
		Easting	Northing
1	3/18/2010	534095	3613393
2	3/26/2010	534111	3613365
3	3/30/2010	534101	3613392
4	3/30/2010	534101	3613392
5	4/9/2010	534103	3613393

All five QCB observed near the project site were located on a hilltop adjacent to an access road for TL 6923. The general habitat in this area is southern mixed chaparral (SMC). Dominant shrubs within this community include chamise (*Adenostoma fasciculatum*), hairy ceanothus (*Ceanothus oliganthus*), scrub oak (*Quercus berberidifolia*), and sugarbush (*Rhus ovata*). Dominant understory plants include filaree (*Erodium botrys*), forget-me-nots (*Cryptantha* sp.), and morning glory (*Calystegia macrostegia*). Flowering plants observed in the area are dominated by goldfields (*Lasthenia californica*), black mustard (*Brassica nigra*), blue dicks (*Dichelostemma capitatum*), buckwheat (*Eriogonum fasciculatum*), deerweed (*Lotus scoparius*), filaree, and forget-me-nots. QCB host plants observed in the area consist of dot-seed plantain and purple owl's clover.

SECTION 4.0 – CONCLUSIONS AND RECOMMENDATIONS

No QCB were observed on the Project ROW, and a total of five (5) QCB were observed on a hilltop adjacent to an access road for TL 6923 (two were seen during the 2010 SDG&E CNF Project focused surveys, and three were seen during the Sunrise Powerlink Project focused surveys where the survey areas overlapped). **Appendix E** contains aerial figures of the Project ROW and buffer and shows the locations of QCB host plant observations. **Table 3** provides an acreage breakdown of the QCB survey area according to whether the area fell inside the Project ROW, CNF land, and USFWS occupied habitat.

Table 3: Acreage Breakdown of QCB Survey by ROW, CNF, and USFWS Occupied Habitat

Survey Area In Project ROW?	Survey Area Within CNF?	Survey Area Within USFWS Occupied Habitat?	Survey Acreage
Yes	Yes	Yes	18.40
		No	94.18
	CNF Total		112.58
	No	Yes	19.52
		No	153.95
	Outside CNF Total		173.47
Within ROW Total			286.05
No	Yes	Yes	27.38
		No	17.27
	CNF Total		44.66
	No	Yes	12.32
		No	27.37
	Outside CNF Total		39.69
Outside ROW Total			84.35
Grand Total			370.40

QCB focused surveys were conducted on a total of approximately 370 acres of QCB suitable habitat with host plants present along the proposed Project ROW and buffer; of these 370, acres, approximately 286 acres were within the ROW, approximately 157 acres were within CNF land, and approximately 78 acres were within USFWS occupied habitat; approximately 18 acres surveyed were within the ROW, CNF and USFWS occupied habitat.

The Master Service Use Permit will contain measures to protect QCB during Project-related activities. These measures should be followed to the greatest extent practicable to minimize impacts to QCB and their habitat. The following are measures that are directly pertinent to protection of QCB:

- QCB occupied and QCB suitable habitat shall be avoided to the greatest extent feasible.
- If construction occurs in QCB occupied and/or QCB suitable habitat, construction shall occur between June 1 and Oct. 15 (outside of the QCB flight season) OR 10 meters (33-feet) away from all host plant locations).
- If there is a known or newly discovered QCB occurrence during the QCB flight season, construction shall be prohibited within 1-kilometer of the occurrence.

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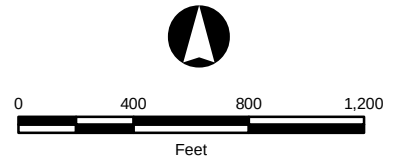
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APPENDIX A – QCB LOCATION MAPS

QUINO CHECKERSPOT
BUTTERFLY LOCATIONS

- Distribution Pole
- Transmission Structures
- Survey Area
- USFS Managed Lands
- Cleveland National Forest
Congressional District Boundary
- USFWS Occupied Habitat
- QCB_Observed
- QCB 1-Kilometer Buffer
- QCB Host Plant





APPENDIX B – BUTTERFLY SPECIES OBSERVED

Butterfly Species Observed on the Project Site During 2010 QCB Focused Surveys
Nymphalidae
<i>Euphydryas editha quino</i>
<i>Euphydryas chalcedona</i>
<i>Chlosyne gabbii</i>
<i>Adelpha bredowii</i>
<i>Adelpha californica</i>
<i>Agraulis vanillae</i>
<i>Limenitis lorquini</i>
<i>Junonia coenia</i>
<i>Nymphalis antiopa</i>
<i>Nymphalis californica</i>
<i>Phyciodes mylitta</i>
<i>Speyeria coronus</i>
<i>Vanessa annabella</i>
<i>Vanessa atalanta</i>
<i>Vanessa cardui</i>
<i>Vanessa virginiensis</i>
<i>Vanessa sp.</i>
Danaidae
<i>Danaus gilippus</i>
<i>Danaus plexippus</i>
Papilionidae
<i>Papilio zelicaon</i>
<i>Papilio indra</i>
<i>Papilio rutulus</i>
<i>Papilio eurymedon</i>
Pieridae
<i>Pontia protodice</i>
<i>Pontia beckerii</i>
<i>Pontia sp.</i>
<i>Pieris rapae</i>
<i>Euchloe hyantis</i>
<i>Anthocharis cethura</i>
<i>Anthocharis sara</i>
<i>Colias eurytheme</i>
<i>Colias harfordii</i>
<i>Zerene eurydice</i>
<i>Phoebis sennae</i>
<i>Eurema nicippe</i>

Butterfly Species Observed on the Project Site During 2010 QCB Focused Surveys
<i>Nathalis iole</i>
Riodinidae
<i>Apodemia mormo</i>
<i>Apodemia virgulti</i>
Lycaenidae
<i>Incisalia augustinus</i>
<i>Callophrys perplexa</i>
<i>Strymon melinus</i>
<i>Satyrium saepium</i>
<i>Lycaena gorgon</i>
<i>Lycaena xanthoides</i>
<i>Leptotes marina</i>
<i>Everes amyntula</i>
<i>Celastrina ladon</i>
<i>Glaucopsyche lygdamus</i>
<i>Glaucopsyche piasus</i>
<i>Philotes sonorensis</i>
<i>Plebejus melissa</i>
<i>Plebejus lupini</i>
<i>Plebejus icarioides</i>
<i>Icaricia acmon</i>
<i>Icaricia (Plebejus) lupini</i>
<i>Hemiargus ceraunus</i>
Hesperiidae
<i>Copaeodes aurantiaca</i>
<i>Hylephila phyleus</i>
<i>Hesperia juba</i>
<i>Erynnis brizo</i>
<i>Erynnis funeralis</i>
<i>Erynnis pacuvius</i>
<i>Erynnis propertius</i>
<i>Erynnis tristis</i>
<i>Pyrgus albescens</i>
<i>Pyrgus scriptura</i>
<i>Heliopetes ericetorum</i>
<i>Pholisora catallus</i>
<i>Unidentified skipper sp.</i>



APPENDIX C – PHOTO PAGES

APPENDIX C – PHOTO PAGES



Photo 1.

Photo shows knoll covered in dwarf plantain adjacent to an access road for TL 6923, where two QCB were found by Rob Fletcher during the 2010 SDG&E CNF Project focused surveys, and three QCB were found by Laurie Gorman during the 2010 Sunrise Powerlink Project focused surveys.



Photo 2.

Photo of first QCB seen by Rob Fletcher on March 30, 2010 on the knoll described in Photo 1.



Photo 3.

Photo of second QCB seen by Rob Fletcher on March 30, 2010 on the knoll described in Photo 1. Note worn appearance compared to first QCB seen, shown in Photo 2.

APPENDIX C – PHOTO PAGES



Photos 4.

Photos show male QCB found on March 18, 2010 by Laurie Gorman foraging on forget-me-nots on the knoll described in Photo 1.



Photos 5 and 6.

Photos show male QCB found on April 9, 2010 by Laurie Gorman actively hilltopping on the knoll described in Photo 1.



Photo 7.

Photo taken of dot-seed plantain found on knoll shown in Photo 1. This was the dominant host plant of the area where QCB were observed.



APPENDIX D – QCB SURVEY DATA TABLE

QCB Survey Data Table				
Date	Biologist (Company)	Time (Military)	Weather Conditions	Survey Location
22-May-2010	Natalie Brodie (Forde)	1415-1545	Temp: 66-68 °F Wind: 0-8 mph Cloud Cover: 0-5%	Map 095
22-May-2010	Natalie Brodie (Forde)	1045-1245	Temp: 61-66 °F Wind: 0-6 mph Cloud Cover: 0-30%	Map 094
21-May-2010	Natalie Brodie (Forde)	1245-1415	Temp: 66-67 °F Wind: 0-6 mph Cloud Cover: 0-5%	Map 093
21-May-2010	Andy Forde (Forde)	0800-1700	Temp: 65-70 °F Wind: 0-2 mph Cloud Cover: 0%	Maps 091, 092, 095
20-May-2010	Andy Forde (Forde)	0900-1300	Temp: 70-75 °F Wind: 0-15 mph Cloud Cover: 0%	Maps 091, 092
16-May-2010	Andrew Pignuolo (Forde)	1300-1400	Temp: 75-78 °F Wind: 0-6 mph Cloud Cover 0-1%	Map 095
14-May-2010	Michael Klein	0900-1515	Temp: 68-78 °F Wind: 2-7 mph Cloud Cover: sunny	Maps 096, 097
14-May-2010	Natalie Brodie (Forde)	1430-1515	Temp: 80 °F Wind: 2-6 mph Cloud Cover: 10%	Map 095
14-May-2010	Natalie Brodie (Forde)	1100-1300	Temp: 74-77 °F Wind: 2-5 mph Cloud Cover: 0-25%	Map 094
14-May-2010	Natalie Brodie (Forde)	1300-1430	Temp: 76-77 °F	Map 093

			Wind: 2-5 mph Cloud Cover: 10-20%	
13-May-2010	Andy Forde (Forde)	0600-1730	Temp: 62-70 °F Wind: 0-5 mph Cloud Cover: 0%	Maps 091, 092, 095
11-May-2010	Jane Higginson (Forde)	1115-1300	Temp: 67-73 °F Wind: 1-7 mph Cloud Cover: 80%	Map 092
11-May-2010	Jane Higginson (Forde)	1530-1640	Temp: 62-73 °F Wind: 0-7 mph Cloud Cover: 75-80%	Map 091
8-May-2010	Jane Higginson (Forde)	1120-1355	Temp: 78-79 °F Wind: 1-3 mph Cloud Cover: 0%	Map 095
8-May-2010	Jane Higginson (Forde)	0945-1030	Temp: 68-75 °F Wind: 0-2 mph Cloud Cover: 0%	Map 092
8-May-2010	Jane Higginson (Forde)	1500-1640	Temp: 80-86 °F Wind: 1-4 mph Cloud Cover: 0%	Map 091
7-May-2010	Michael Klein	0845-1500	Temp: 68-82 °F Wind: 2-5 mph Cloud Cover: sunny	Maps 096, 097
7-May-2010	Natalie Brodie (Forde)	1420-1550	Temp: 76-77 °F Wind: 0-3 mph Cloud Cover: 0%	Map 095
7-May-2010	Natalie Brodie (Forde)	1030-1230	Temp: 70-77 °F Wind: 0-3 mph Cloud Cover: 0%	Map 094
7-May-2010	Natalie Brodie (Forde)	1245-1415	Temp: 75-76 °F Wind: 0-4 mph	Map 093

			Cloud Cover: 0%	
6-May-2010	Andy Forde (Forde)	0900-1430	Temp: 65-70 °F Wind: 0-5 mph Cloud Cover: 0-10%	Map 091, 092
2-May-2010	Andrew Pignuolo (Forde)	1400-1530	Temp: 69-70 °F Wind: 0-4 mph Cloud Cover: 2%	Map 095
2-May-2010	Andrew Pignuolo (Forde)	1030-1130	Temp: 60-64 °F Wind: 0-4 mph Cloud Cover: 0%	Map 094
2-May-2010	Andrew Pignuolo (Forde)	1230-1400	Temp: 64-69 °F Wind: 0-4 mph Cloud Cover: 0%	Map 093
1- May-2010	Michael Klein	0845-1530	Temp: 59-63 °F Wind: 2-10 mph Cloud Cover: sunny	Maps 096, 097
1-May-2010	Jane Higginson (Forde)	1150-1420	Temp: 70-75 °F Wind: 2-6 mph Cloud Cover: 0-10%	Map 095
1-May-2010	Jane Higginson (Forde)	1604-1640	Temp: 68-71 °F Wind: 1-7 mph Cloud Cover: 40-50%	Map 092
1-May-2010	Andrew Pignuolo (Forde)	1330-1500	Temp: 67-69 °F Wind: 0-2 mph Cloud Cover: 0-5%	Map 092
1-May-2010	Jane Higginson (Forde)	0940-1100	Temp: 60-64 °F Wind: 1-4 mph Cloud Cover: 0%	Map 091
1-May-2010	Andrew Pignuolo (Forde)	1500-1630	Temp: 66-69 °F Wind: 0-4 mph Cloud Cover: 5-10%	Map 091

25 Apr-2010	Michael Klein	0845-1530	Temp: 65-73 °F Wind: 0-4 mph Cloud Cover: sunny	Maps 096, 097
25-Apr-2010	Jane Higginson (Forde)	1430-1730	Temp: 72-75°F Wind: 2 mph Cloud Cover: 0%	Map 095
25-Apr-2010	Jane Higginson (Forde)	1300-1400	Temp: 72°F Wind: 2 mph Cloud Cover: 0%	Map 092
25-Apr-2010	Jane Higginson (Forde)	0935-1200	Temp: 69°F Wind: 2 mph Cloud Cover: 0%	Map 091
24-Apr-2010	Andrew Pignuolo (Forde)	1430-1600	Temp: 67-69 °F Wind: 0-4 mph Cloud Cover: 0%	Map 095
24-Apr-2010	Andrew Pignuolo (Forde)	1100-1300	Temp: 65-69 °F Wind: 0-4 mph Cloud Cover: 0%	Map 094
24-Apr-2010	Andrew Pignuolo (Forde)	1300-1430	Temp: 69°F Wind: 0-4 mph Cloud Cover: 0%	Map 093
23-Apr-2010	Andrew Pignuolo (Forde)	1330-1500	Temp: 60 °F Wind: 0-4 mph Cloud Cover: 2-15%	Map 092
23-Apr-2010	Andrew Pignuolo (Forde)	1200-1330	Temp: 60-61 °F Wind: 0-6 mph Cloud Cover: 0-1%	Map 091
18-Apr-2010	Michael Klein	0915-1600	Temp: 66-74 °F Wind: 2-4 mph Cloud Cover: 20%	Maps 096, 097
10-Apr-2010	Michael Klein	0900-1615	Temp: 60-63 °F	Maps 096, 097, 098, 099, 100

			Wind: 2-9 mph Cloud Cover: sunny	
30-Mar-2010	Michael Klein	1000-1515	Temp: 58-69°F Wind: 2-10 mph Cloud Cover: 50%	Maps 096, 97
20-May-2010	Martha Heath	0800-1200	Temp: 65-76 °F Wind: 2-8 mph Cloud Cover: 0%	Maps 080, 081
12-May-2010	Martha Heath	0830-1630	Temp: 60-63 °F Wind: 1-8 mph Cloud Cover: 0%	Maps 080, 081, 082
9-May-2010	Martha Heath	0920-1500	Temp: 59-66 °F Wind: 1-16 mph Cloud Cover: 0-45%	Maps 076, 080, 081
5-May-2010	Martha Heath	0830-1600	Temp: 69-79 °F Wind: 0-6 mph Cloud Cover: 0-10%	Maps 080, 082
4-May-2010	Martha Heath	0830-1430	Temp: 61-73 °F Wind: 0-10 mph Cloud Cover: 0%	Maps 080, 081, 082
3-May-2010	Martha Heath	1530-1630	Temp: 65-67 °F Wind: 2-8 mph Cloud Cover: 0%	Map 082
26-Apr-2010	Martha Heath	0815-1615	Temp: 60-76 °F Wind: 1-10 mph Cloud Cover: 0-20%	Maps 080, 081, 082
20-Apr-2010	Martha Heath	0830-1530	Temp: 56-62 °F Wind: 1-10 mph Cloud Cover: 10-45%	Maps 080, 082
19-Apr-2010	Martha Heath	1530-1700	Temp: 64-69 °F	Map 082

			Wind: 3-8 mph Cloud Cover: 0-15%	
15-Apr-2010	Martha Heath	1000-1700	Temp: 63-76 °F Wind: 0-5 mph Cloud Cover: 0-100%	Maps 080, 081, 082
3-Apr-2010	Martha Heath	1130-1600	Temp: 56-66 °F Wind: 0-3 mph Cloud Cover: 50%	Map 082
2-Apr-2010	Martha Heath	1400-1630	Temp: 58-62 °F Wind: 0-6 mph Cloud Cover: 0%	Maps 081, 082
28-March-2010	Martha Heath	1000-1600	Temp: 66-71 °F Wind: 2-10 mph Cloud Cover: 0%	Maps 080, 081
30-May-2010	Nicole Kimball, Martha Heath (AMEC)	0800-1345	Temp: 71-88 °F Wind: 1-12 mph Cloud Cover: 0%	Maps 071, 072, 073, 074
30-May-2010	Martha Heath (AMEC)	0800-1345	Temp: 71-88 °F Wind: 1-12 mph Cloud Cover: 0%	Maps 071, 072, 073, 074
24-May-2010	Nicole Kimball (AMEC)	1030-1602	Temp: 69-79 °F Wind: 0-14 mph Cloud Cover: 0-1%	Maps 070, 071, 072, 073, 074, 075, 076, 077
21-May-2010	Martha Heath	0815-1500	Temp: 62-75 °F Wind: 1-7 mph Cloud Cover: 0%	Map 076
20-May-2010	Martha Heath	1300-1700	Temp: 75-79 °F Wind: 1-8 mph Cloud Cover: 0%	Maps 066, 067, 068
19-May-2010	Nicole Kimball (AMEC)	0818-1419	Temp: 67-86 °F	Maps 071, 072, 073, 074

			Wind: 0-8 mph Cloud Cover: 0%	
19-May-2010	Laurie Gorman, Nicole Kimball (AMEC)	0900-1419	Temp: 64-86 °F Wind: 0-8 mph Cloud Cover: 0%	Maps 071,072, 073, 074
17-May-2010	Nicole Kimball (AMEC)	1022-1355	Temp: 70-83 °F Wind: 0-7 mph Cloud Cover: 85-100%	Maps 070, 071, 072, 073, 074 075, 076, 077
17-May-2010	M. Wilcox, Nicole Kimball (AMEC)	1030-1355	Temp: 62-81 °F Wind: 1-4 mph Cloud Cover: 80-100%	Maps 069, 070, 071, 072, 073, 074, 075
17-May-2010	Martha Heath	1400-1630	Temp: 64-71 °F Wind: 1-6 mph Cloud Cover: 0-70%	Map 066
14-May-2010	Nicole Kimball (AMEC)	0900-1511	Temp: 61-85 °F Wind: 1-11 mph Cloud Cover: 0-25%	Maps 070, 075, 077
13-May-2010	Maya Mazon (Chambers)	1345-1530	Temp: 77 °F Wind: 6-9 mph Cloud Cover: 40%	Maps 063, 064, 065, 069
12-May-2010	Laurie Gorman, John Green (AMEC)	0930-1500	Temp: 66-74 °F Wind: 0-10 mph Cloud Cover: 0-3%	Maps 071, 072, 073, 074
12-May-2010	Maya Mazon (Chambers)	1339-1530	Temp: 77 °F Wind: 2-9 mph Cloud Cover: 0%	Maps 063, 064, 065, 069
10-May-2010	Martha Heath	0900-1500	Temp: 59-63 °F Wind: 1-9 mph Cloud Cover: 0-20%	Maps 067, 068
7-May-2010	Laurie Gorman, Steve Meyers (AMEC)	0940-1540	Temp: 70-84 °F Wind: 0-8 mph	Maps 071, 072, 073, 074

			Cloud Cover: 0%	
6-May-2010	Martha Heath	0800-1530	Temp: 63-72 °F Wind: 2-8 mph Cloud Cover: 0%	Maps 067, 068
6-May-2010	Maya Mazon (Chambers)	1030	Temp: 74 °F Wind: 1-3 mph Cloud Cover: 0%	Maps 063, 064, 065, 069
5-May-2010	Martha Heath	0830-1600	Temp: 69-79 °F Wind: 0-6 mph Cloud Cover: 0-10%	Maps 066, 068
3-May-2010	Martha Heath	0830-1530	Temp: 65-77 °F Wind: 0-6 mph Cloud Cover: 0%	Maps 068, 076
3-May-2010	Maya Mazon (Chambers)	0900-1340	Temp: 62-66 °F Wind: 1-3 mph Cloud Cover: 0%	Maps 063, 064, 065, 069
2-May-2010	Laurie Gorman (AMEC)	0930-1510	Temp: 61-74 °F Wind: 0-7 mph Cloud Cover: 0%	Maps 071, 072, 073, 074
27-Apr-2010	Martha Heath	0800-1600	Temp: 65-75 °F Wind: 1-7 mph Cloud Cover: 0-35%	Maps 066, 067, 068
27-Apr-2010	Maya Mazon (Chambers)	0900-1345	Temp: 73-80 °F Wind: 1-3 mph Cloud Cover: 0%	Maps 063, 064, 065, 069
26-Apr-2010	Nicole Kimball (AMEC)	1108-1703	Temp: 78-84 °F Wind: 0-6 mph Cloud Cover: 15% haze	Maps 075, 077
26-Apr-2010	Maya Mazon (Chambers)	0930-1440	Temp: 71-77 °F Wind: 0-9 mph Cloud Cover: 0-15%	Maps 063, 064, 065, 069

23-Apr-2010	Maya Mazon (Chambers)	0952-1600	Temp: 60-67 °F Wind: 0-10 mph Cloud Cover: 0-25%	Maps 063, 064, 065, 069
19-Apr-2010	Martha Heath	0830-1500	Temp: 61-71 °F Wind: 0-7 mph Cloud Cover: 0-5%	Maps 066, 076, 080
17-Apr-2010	Martha Heath	1600-1730	Temp: 67-70 °F Wind: 2-5 mph Cloud Cover: 100%	Map 066
16-Apr-2010	Steve Meyers, Chet McGaugh (AMEC)	1050-1630	Temp: 55-65 °F Wind: 0-9 mph Cloud Cover: 0%	Maps 071, 072, 073, 074
16-Apr-2010	Martha Heath	1630-1730	Temp: 65-66 °F Wind: 1-3 mph Cloud Cover: 0%	Map 066
15-Apr-2010	Maya Mazon (Chambers)	0952-1230	Temp: 65-67 °F Wind: 4-5 mph Cloud Cover: 1%	Maps 063, 064, 065, 069
14-Apr-2010	Martha Heath	1045-1800	Temp: 61-69 °F Wind: 1-8 mph Cloud Cover: 0-100%	Maps 067, 068
14-Apr-2010	Maya Mazon (Chambers)	1120-1530	Temp: 62-73 °F Wind: 1-3 mph Cloud Cover: 10-25%	Maps 063, 064, 065, 069
9-Apr-2010	Nicole Kimball, David King (AMEC)	1014-1345	Temp: 71-80 °F Wind: 0-11 mph Cloud Cover: 0%	Maps 069, 070
8-Apr-2010	Martha Heath	0900-1700	Temp: 60-76 °F Wind: 0-8 mph Cloud Cover: 0%	Maps 066, 076
8-Apr-2010	Maya Mazon (Chambers)	1320-1421	Temp: 76 °F	Maps 063, 064, 065, 069

			Wind: 1-3 mph Cloud Cover: 0%	
7-Apr-2010	Martha Heath	1100-1700	Temp: 60-69 °F Wind: 1-10 mph Cloud Cover: 0%	Maps 068, 076
6-Apr-2010	Maya Mazon (Chambers)	1111-1557	Temp: 60-65 °F Wind: 3-8 mph Cloud Cover: 0%	Maps 063, 064, 065, 069
4-Apr-2010	Martha Heath	1400-1700	Temp: 60-64 °F Wind: 1-7 mph Cloud Cover: 0%	Maps 067, 068
30-Mar-2010	Maya Mazon (Chambers)	1002-1400	Temp: 63-70 °F Wind: 3-9 mph Cloud Cover: 2-5%	Maps 063, 064, 065, 069
29-Mar-2010	Maya Mazon (Chambers)	0830-1600	Temp: 61-80 °F Wind: 0-3 mph Cloud Cover: 0-20%	Maps 063, 064, 065, 069
20-Apr-2010	Rob Fletcher (Chambers)	1000-1500	Temp: 65-76 °F Wind: 2-12 mph Cloud Cover: 25-75%	Maps 058, 059, 060, 061, 062
19-Apr-2010	Rob Fletcher (Chambers)	1000-1400	Temp: 65-71 °F Wind: 2-9 mph Cloud Cover: 10-20%	Maps 058, 059, 060, 061, 062
15-Apr-2010	Rob Fletcher (Chambers)	1000-1500	Temp: 65-74 °F Wind: 1-7 mph Cloud Cover: 10-60%	Maps 058, 059, 060, 061, 062
14-Apr-2010	Rob Fletcher (Chambers)	1100-1500	Temp: 61-64 °F Wind: 1-6 mph Cloud Cover: 10-20%	Maps 058, 059, 060, 061, 062
10-Apr-2010	Rob Fletcher (Chambers)	0900-1315	Temp: 63-69 °F	Maps 058, 059, 060, 061, 062

			Wind: 0-6 mph Cloud Cover: 10-30%	
8-Apr-2010	Rob Fletcher (Chambers)	1000-1500	Temp: 69-83 °F Wind: 2-4 mph Cloud Cover: 0%	Maps 058, 059, 060, 061, 062
30-Mar-2010	Rob Fletcher (Chambers)	1030-1530	Temp: 61-72 °F Wind: 3-9 mph Cloud Cover: 0-20%	Maps 058, 059, 060, 061, 062
29-Mar-2010	Rob Fletcher (Chambers)	1115-1400	Temp: 66-71 °F Wind: 2-7 mph Cloud Cover: 0-30%	Maps 058, 059, 060, 061, 062
25-Mar-2010	Rob Fletcher, Seth Reimers (Chambers)	1030-1540	Temp: 64-72 °F Wind: 3-6 mph Cloud Cover: 0%	Maps 058, 059, 060, 061, 062
24-Mar-2010	Rob Fletcher, Seth Reimers (Chambers)	1130-1600	Temp: 72-75 °F Wind: 3-6 mph Cloud Cover: 0-10%	Maps 058, 059, 060, 061, 062
26-May-2010	Rob Fletcher, Maya Mazon (AMEC)	1000-1311	Temp: 66-74 °F Wind: 1-4 mph Cloud Cover: 0%	Maps 042, 043, 044
25-May-2010	Rob Fletcher (AMEC)	1000-1400	Temp: 65-67 °F Wind: 2-4 mph Cloud Cover: 0%	Maps 039, 040, 041
21-May-2010	Nate Moorhatch, Nicole Kimball (AMEC)	0903-1337	Temp: 64-81 °F Wind: 0-12 mph Cloud Cover: 0%	Maps 040, 041, 042, 043, 044
14-May-2010	Laurie Gorman, Mike Wilcox (AMEC)	0900-1350	Temp: 68-73 °F Wind: 0-12 mph Cloud Cover: 0-15%	Maps 041, 042, 043
12-May-2010	Nicole Kimball (AMEC)	0858-1345	Temp: 61-83 °F	Map 040

			Wind: 0-9 mph Cloud Cover: 0-15%	
10-May-2010	Rob Fletcher (AMEC)	1115-1430	Temp: 64-78 °F Wind: 4-10 mph Cloud Cover: 25-50%	Maps 051, 052 (west)
10-May-2010	Nicole Kimball, Rob Fletcher (AMEC)	1105-1430	Temp: 66-73 °F Wind: 3-6 mph Cloud Cover 30-40 %	Maps 049, 050, 052 (west)
6-May-2010	Rob Fletcher (AMEC)	0830-1330	Temp: 65-78 °F Wind: 0-6 mph Cloud Cover: 0-5% haze	Map 054
6-May-2010	Nicole Kimball (AMEC)	0840-1325	Temp: 60-80 °F Wind: 0-6 mph Cloud Cover: 0%	Maps 041, 051
6-May-2010	Chet McGaugh (AMEC)	0925-1130	Temp: ? Wind: ? Cloud Cover: 0%	Maps 049, 050
6-May-2010	Nate Moorhatch, Laurie Gorman (AMEC)	0832-1430	Temp: 65-80 °F Wind: 0-6 mph Cloud Cover: 0%	Maps 043, 044, 052
5-May-2010	John Green (AMEC)	1130-1440	Temp: 74-77 °F Wind: 0-5 mph Cloud Cover: <5%	Maps 039, 040
5-May-2010	Nicole Kimball, John Green (AMEC)	0850-1440	Temp: 63-77 °F Wind: 1-7 mph Cloud Cover: 0%	Maps 033, 040, 041
3-May-2010	Laurie Gorman, Nicole Kimball (AMEC)	0910-1307	Temp: 65-85 °F Wind: 0-12 mph Cloud Cover: 0%	Maps 052, 056, 057
3-May-2010	Nicole Kimball (AMEC)	0910-1307	Temp: 65-85 °F Wind: 0-9 mph	Map 052 (west), 055

			Cloud Cover: clear	
30-Apr-2010	Nicole Kimball (AMEC)	1025-1311	Temp: 61-77 °F Wind: 2-9 mph Cloud Cover: 10-25%	Map 054
30-Apr-2010	Rob Fletcher, Nicole Kimball (AMEC)	1018-1215	Temp: 58-66 °F Wind: 2-8 mph Cloud Cover: 20-25%	Map 051
30-Apr-2010	Nate Moorhatch, Laurie Gorman (AMEC)	1145-1345	Temp: 64-71 °F Wind: 0-11 mph Cloud Cover: 15-20%	Maps 049, 050
30-Apr-2010	Sarah Farmer, Frank Dittmer (Forde)	1200-1415	Temp: 62-65 °F Wind: 0-12 mph Cloud Cover: 50%	Map 045, 049
27-Apr-2010	John Green, Chet McGaugh, Steve Meyers (AMEC)	1000-1520	Temp: 70-74 °F Wind: 0-6 mph Cloud Cover: 0-50%	Maps 049, 050, 051, 054, 055, 056
27-Apr-2010	Nicole Kimball, Laurie Gorman (AMEC)	1117-1631	Temp: 67-88 °F Wind: 1-8 mph Cloud Cover: 7-50%	Maps 052, 053
27-Apr-2010	Rob Fletcher, David King (AMEC)	1030-1615	Temp: 75-78 °F Wind: 3-6 mph Cloud Cover: 20-50%	Maps 042, 043, 044
23-Apr-2010	Nicole Kimball, David King (AMEC)	1200-1520	Temp: 66-75 °F Wind: 0-8 mph Cloud Cover: 2-20%	Maps 055, 056
23-Apr-2010	David King, Nicole Kimball (AMEC)	1205-1520	Temp: 58-65 °F Wind: 2-15 mph Cloud Cover: 0-30%	Map 055 (north from Manzanita Bay)
23-Apr-2010	Frank Dittmer (Forde)	1315-1500	Temp: 62-68 °F Wind: 5-10 mph Cloud Cover: 0-30%	Maps 045, 046, 049

20-Apr-2010	David King, Steve Myers (AMEC)	1006-1550	Temp: 61-72 °F Wind: 2-9 mph Cloud Cover: 10-50%	Maps 040, 041
15-Apr-2010	Sarah Farmer, Frank Dittmer (Forde)	1400-1600	Temp: 63 °F Wind: 2-5 mph Cloud Cover: 20%	Map 049
15-Apr-2010	Sarah Farmer (Forde)	1130-1400	Temp: 62-63 °F Wind: 2-5 mph Cloud Cover: 0%	Maps 046, 047, 048
13-Apr-2010	John Green (AMEC)	1200-1500	Temp: 59-63 °F Wind: 0-8 mph Cloud Cover: 20-45%	Maps 055, 056, 057
13-Apr-2010	David King (AMEC)	1155-1445	Temp: 56-66 °F Wind: 0-14 mph Cloud Cover: 15-30%	Map 055
13-Apr-2010	Nicole Kimball (AMEC)	1102-1700	Temp: 60-71 °F Wind: 0-13 mph Cloud Cover 15-30%	Maps 050 (south tip), 051, 054
13-Apr-2010	John Green (AMEC)	1545-1700	Temp: 58-62 °F Wind: 0-9 mph Cloud Cover: 25-30%	Map 050
13-Apr-2010	David King, Nicole Kimball (AMEC)	1535-1714	Temp: 54-64 °F Wind: 0-9 mph Cloud Cover: 50%	Map 050
9-Apr-2010	Sarah Farmer (Forde)	1430-1645	Temp: 70-72 °F Wind: 2-5 mph Cloud Cover: 0%	Maps 045, 049
8-Apr-2010	Nicole Kimball, David King (AMEC)	1205-1625	Temp: 72-78 °F Wind: 1-7 mph Cloud Cover: 0%	Maps 041, 042, 043, 044, 052 (west end)
7-Apr-2010	Steve Meyers, Chet McGaugh	1045-1515	Temp: 65-78 °F	Maps 054, 056, 057

	(AMEC)		Wind: 2-8 mph Cloud Cover: 0%	
7-Apr-2010	David King, John Green, Nicole Kimball (AMEC)	1137-1511	Temp: 72-81 °F Wind: 2-8 mph Cloud Cover: 0%	Maps 055, 056
7-Apr-2010	Sarah Farmer, Frank Dittmer (Forde)	1230-1630	Temp: 72-74 °F Wind: 2-5 mph Cloud Cover: 0%	Maps 046, 047, 048
6-Apr-2010	Nicole Kimball (AMEC)	1048-1433	Temp: 62-73 °F Wind: 0-10 mph Cloud Cover: 0%	Map 051
6-Apr-2010	Chet McGaugh (AMEC)	1115-1435	Temp: 60-71 °F Wind: 0-8 mph Cloud Cover: 0%	Map 050
6-Apr-2010	Steve Meyers, Chet McGaugh, Nicole Kimball (AMEC)	1115-1435	Temp: 60 °F Wind: 0-8 mph Cloud Cover: 0%	Map 050
6-Apr-2010	Sarah Farmer, Frank Dittmer (Forde)	1145-1615	Temp: 60 °F Wind: 2-5 mph Cloud Cover: 0%	Maps 045, 049
3-Apr-2010	Sarah Farmer, Frank Dittmer (Forde)	1030-1400	Temp: 60-70 °F Wind: 2-5 mph Cloud Cover: 0-5%	Maps 047, 048
2-Apr-2010	Sarah Farmer, Frank Dittmer (Forde)	1345-1545	Temp: 63-67 °F Wind: 2-5 mph Cloud Cover: 0%	Maps 045, 046, 047
26-Mar-2010	Sarah Famer, Frank Dittmer (Forde)	1100-1230	Temp: 63-66 °F Wind: 0-2 mph Cloud Cover: 0%	Map 045
25-Mar-2010	Sarah Farmer, Frank Dittmer (Forde)	1030-1615	Temp: 60 °F Wind: 2-6 mph	Maps 046, 047, 048

			Cloud Cover: 0%	
22-Mar-2010	Sarah Farmer, Frank Dittmer (Forde)	1015-1500	Temp: 62-64 °F Wind: 2-6 mph Cloud Cover: 5-20%	Map 047
17-Mar-2010	Sarah Farmer, Frank Dittmer (Forde)	0900-1445	Temp: 60-80°F Wind: 2-5 mph Cloud Cover: 0%	Maps 047, 048
25-May-2010	Laurie Gorman, Greg Chatman (AMEC)	0950-1402	Temp: 60-62 °F Wind: 1-5 mph Cloud Cover: 0%	Maps 030, 031, 032, 033
25-May-2010	Nate Moorhatch, Nicole Kimball (AMEC)	1021-1539	Temp: 60-77 °F Wind: 0-4 mph Cloud Cover: 0-40%	Maps 028, 029, 030, 031, 032, 033, 034, 035, 036
25-May-2010	Kyle Ince (Merkel)	1000-1330	Temp: 60-66 °F Wind: 0-2 mph Cloud Cover: 0%	Maps 027, 028
25-May-2010	Antonette Gutierrez, Adam Behle, Kyle Ince (Merkel)	1130-1420	Temp: 65-71 °F Wind: 1 mph Cloud Cover: 0-25%	Map 026
25-May-2010	Adam Behle (Merkel)	1030-1420	Temp: 60-66 °F Wind: 0-2 mph Cloud Cover: 0-30%	Map 025, 027
25-May-2010	Antonette Gutierrez (Merkel)	1030-1130	Temp: 65 °F Wind: 1 mph Cloud Cover: 0%	Map 025
20-May-2010	Nicole Kimball (AMEC)	0910-1450	Temp: 67-85 °F Wind: 1-10 mph Cloud Cover: 0%	Maps 028, 029, 030, 031, 032, 033, 034, 035, 036
20-May-2010	Rob Fletcher, Laurie Gorman (AMEC)	0920-1330	Temp: 68-72 °F Wind: 3-9 mph	Maps 030, 031, 032, 033

			Cloud Cover: 0%	
20-May-2010	Kyle Ince (Merkel)	1145-1400	Temp: 72 °F Wind: 0-2 mph Cloud Cover: 0%	Map 028
20-May-2010	Steve Rink (Merkel)	1200-1340	Temp: 71-72 °F Wind: 2-5 mph Cloud Cover: 0%	Map 027
20-May-2010	Antonette Gutierrez (Merkel)	0945	Temp: 70-72°F Wind: 1-2 mph Cloud Cover: 0%	Map 026
20-May-2010	Kyle Ince (Merkel)	0950-1055	Temp: 70 °F Wind: 0-5 mph Cloud Cover: 0%	Map 025
20-May-2010	Steve Rink (Merkel)	1000-1045	Temp: 70°F Wind: 1-5 mph Cloud Cover: 0%	Map 025
13-May-2010	M. Wilcox, Chet McGaugh (AMEC)	1040-1445	Temp: 71-80 °F Wind: 0-3 mph Cloud Cover: 0-10%	Maps 037, 038
13-May-2010	Laurie Gorman, Nate Moorhatch (AMEC)	0930-1500	Temp: 62-75 °F Wind: 0-8 mph Cloud Cover: 0-15%	Maps 030, 031, 032, 033
13-May-2010	Kyle Ince (Merkel)	1125-1430	Temp: 69-80 °F Wind: 0-5 mph Cloud Cover: 5%	Maps 027, 028
13-May-2010	Antonette Gutierrez (Merkel)	1145-1430	Temp: 78-80 °F Wind: 0-4 mph Cloud Cover: 5-10%	Map 027
13-May-2010	Adam Behle (Merkel)	0900-1425	Temp: 70-80 °F Wind: 1-2 mph Cloud Cover: 5%	Map 026

13-May-2010	Kyle Ince (Merkel)	1000-1045	Temp: 67-69 °F Wind: 1-2 mph Cloud Cover: 0-5%	Map 025
13-May-2010	Antonette Gutierrez, Kyle Ince (Merkel)	1000-1030	Temp: 67-69 °F Wind: 1-2 mph Cloud Cover: 5%	Map 025
12-May-2010	Nicole Kimball, Nate Moorhatch (AMEC)	0955-1505	Temp: 64-87 °F Wind: 2-7 mph Cloud Cover: 0%	Maps 028, 029, 030, 034, 035, 036
7-May-2010	Nicole Kimball, M. Busby (AMEC)	0850-1405	Temp: 61-87 °F Wind: 0-5 mph Cloud Cover: 0%	Maps 037, 038
7-May-2010	Adam Behle (Merkel)	1100-1320	Temp: 70-78 °F Wind: 1-2 mph Cloud Cover: 0%	Map 028
7-May-2010	Steve Rink (Merkel)	1130-1330	Temp: 70-75 °F Wind: 2-3 mph Cloud Cover: 0%	Map 027
7-May-2010	Antonette Gutierrez, Adam Behle, Steve Rink (Merkel)	0915-1300	Temp: 75-80 °F Wind: 0-2 mph Cloud Cover: 0%	Map 026
7-May-2010	Adam Behle, Steve Rink (Merkel)	0935-1025	Temp: 65-66 °F Wind: 2 mph Cloud Cover: 0%	Map 025
5-May-2010	Laurie Gorman, Nate Moorhatch (AMEC)	0836-1350	Temp: 68-84 °F Wind: 0-6 mph Cloud Cover: 0%	Maps 030, 034, 035, 036
4-May-2010	Nicole Kimball, M. Wilcox (AMEC)	0915-1450	Temp: 66-83 °F Wind: 1-5 mph Cloud Cover: 0%	Maps 037, 038
4-May-2010	Rob Fletcher, Laurie Gorman	0840-1310	Temp: 71-80 °F	Maps 030, 031, 032, 034

	(AMEC)		Wind: 0-8 mph Cloud Cover: 0%	
3-May-2010	Chet McGaugh, Steve Meyers (AMEC)	1100-1600	Temp: 70-74 °F Wind: 1-8 mph Cloud Cover: 0%	Maps 028, 029, 030, 031, 032, 033, 034
2-May-2010	Antonette Gutierrez, Steve Rink (Merkel)	0945-1040	Temp: 60-61 °F Wind: light breeze Cloud Cover: 5%	Map 025
2-May-2010	Antonette Gutierrez, Steve Rink, Adam Behle (Merkel)	1130-1400	Temp: 64-67 °F Wind: 1-2 mph Cloud Cover: 2%	Map 027
2-May-2010	Steve Rink (Merkel)	1000-1400	Temp: 60-67 °F Wind: 1-2 mph Cloud Cover: 2-10%	Maps 025, 028
1-May-2010	Adam Behle (Merkel)	1000-1345	Temp: 60-67 °F Wind: 1 mph Cloud Cover: 2-5%	Map 026
25-Apr-2010	Antonette Gutierrez (Merkel)	1200-1500	Temp: 70-75 °F Wind: 0-1 mph Cloud Cover: 0%	Map 028
23-Apr-2010	Antonette Gutierrez, Steve Rink, Adam Behle (Merkel)	1200-1600	Temp: 60-62 °F Wind: 2 mph Cloud Cover: 2-10%	Maps 026, 027
23-Apr-2010	Steve Rink (Merkel)	1328-1539	Temp: 58-60 °F Wind: 2-3 mph Cloud Cover: 30%	Maps 025, 027
23-Apr-2010	Adam Behle, Steve Rink, Antonette Gutierrez (Merkel)	1345-1530	Temp: 59-60 °F Wind: 1-2 mph Cloud Cover: 30-50%	Maps 025, 027
20-Apr-2010	M. Busby, Nicole Kimball (AMEC)	1000-1600	Temp: 64-86 °F Wind: 2-11 mph	Maps 037, 038

			Cloud Cover: 10-80% haze	
19-Apr-2010	Nicole Kimball (AMEC)	1122-1548	Temp: 71-79 °F Wind: 0-8 mph Cloud Cover: 1-10%	Maps 035, 036
19-Apr-2010	David King (AMEC)	1150-1530	Temp: 72-78 °F Wind: 0-8 mph Cloud Cover: 0%	Map 035
16-Apr-2010	John Green (AMEC)	1040-1535	Temp: 60-76 °F Wind: 0-5 mph Cloud Cover: clear-hazy	Maps 030, 034
16-Apr-2010	Nicole Kimball (AMEC)	1037-1535	Temp: 60-76 °F Wind: 0-5 mph Cloud Cover: 0%	Maps 030, 034
15-Apr-2010	M. Busby, Nicole Kimball (AMEC)	1030-1530	Temp: 64-76 °F Wind: 2-8 mph Cloud Cover: hazy (5-100%)	Maps 030, 031, 032
14-Apr-2010	Nicole Kimball (AMEC)	1409-1600	Temp: 57-69 °F Wind: 1-12 mph Cloud Cover: 25-80%	Map 029
14-Apr-2010	David King, Nicole Kimball (AMEC)	1109-1600	Temp: 53-76 °F Wind: 0-12 mph Cloud Cover: 5-80%	Maps 028, 029
14-Apr-2010	Diane Jensen (Merkel)	1030-1430	Temp: 62-65 °F Wind: 0-1 mph Cloud Cover: 0-40%	Map 028
14-Apr-2010	Adam Behle (Merkel)	1100-1445	Temp: 66-68 °F Wind: 0-1 mph Cloud Cover: 5-40%	Map 027
14-Apr-2010	Steve Rink, Melissa Booker (Merkel)	1000-1330	Temp: 60-64 °F Wind: 0-2 mph Cloud Cover: 20-40%	Map 026

10-Apr-2010	Nicole Kimball, David King (AMEC)	1045-1200	Temp: 61-65 °F Wind: 2-9 mph Cloud Cover: 15%	Map 033
9-Apr-2010	Steve Rlnk, Adam Behle (Merkel)	1016-1435	Temp: 68-72 °F Wind: 1-6 mph Cloud Cover: 0%	Map 025
28-May-2010	Nicole Kimball (AMEC)	0915-1350	Temp: 59-77 °F Wind: 0-14 mph Cloud Cover: 5-20%	Maps 009, 010
26-May-2010	Greg Chatman (AMEC)	1030-1320	Temp: 70-75 °F Wind: 3-9 mph Cloud Cover: 0%	Maps 009, 010
26-May-2010	Nicole Kimball (AMEC)	1114-1316	Temp: 70-80 °F Wind: 4-13 mph Cloud Cover: 2-5%	Maps 009, 010
26-May-2010	Steve Meyers, Nate Moorhatch (AMEC)	1050-1440	Temp: 63-70 °F Wind: 1-16 mph Cloud Cover: 0-10%	Maps 002, 003, 004, 005, 006, 007, 008
21-May-2010	M. Wilcox (AMEC)	1020-1530	Temp: 60-77 °F Wind: 0-5 mph Cloud Cover: 0-5%	Maps 002, 003, 004
19-May-2010	Chet McGaugh (AMEC)	0930-1430	Temp: 60-80 °F Wind: 0-8 mph Cloud Cover: 0%	Maps 005, 006, 007, 008
15-May-2010	Greg Chatman (Chambers)	1030-1630	Temp: 70-82 °F Wind: 3-8 mph Cloud Cover: 0%	Maps 019, 020
14-May-2010	Greg Chatman (Chambers)	1000-1600	Temp: 68-78 °F Wind: 1-7 mph Cloud Cover: 0%	Maps 015, 016

13-May-2010	Greg Chatman (Chambers)	1200-1500	Temp: 75-78 °F Wind: 1-4 mph Cloud Cover: 0%	Maps 021, 022
12-May-2010	Greg Chatman (Chambers)	1000-1600	Temp: 70-76 °F Wind: 2-6 mph Cloud Cover: 0%	Maps 017, 018
12-May-2010	Chet McGaugh, Steve Meyers (AMEC)	0940-1200	Temp: 61-69 °F Wind: 0-8 mph Cloud Cover: 0%	Maps 009, 010
10-May-2010	Chet McGaugh (AMEC)	1110-1530	Temp: 51-64 °F Wind: 1-15 mph Cloud Cover: 70%	Maps 005, 006, 007, 008
10-May-2010	Stephen Meyers (AMEC)	1010-1450	Temp: 60-64 °F Wind: 0-10 mph Cloud Cover: 30-70%	Maps 002, 003, 004
8-May-2010	Greg Chatman (Chambers)	0930-1530	Temp: 74-82 °F Wind: 1-4 mph Cloud Cover: 0%	Maps 016, 017
7-May-2010	Greg Chatman (Chambers)	1000-1600	Temp: 79-88 °F Wind: 2-6 mph Cloud Cover: 0%	Maps 017, 018
5-May-2010	Greg Chatman (Chambers)	1100-1700	Temp: 77-83 °F Wind: 2-6 mph Cloud Cover: 0%	Maps 015, 016
5-May-2010	Chet McGaugh (AMEC)	0930-1610	Temp: 68-70 °F Wind: 0-6 mph Cloud Cover: 0%	Maps 005, 006, 007, 008
5-May-2010	M. Wilcox (AMEC)	1030-1500	Temp: 60-84 °F Wind: 0-5 mph Cloud Cover: 0-5%	Maps 002, 003, 004
4-May-2010	Greg Chatman (Chambers)	1000-1600	Temp: 75-85 °F	Maps 019, 020

			Wind: 2-9 mph Cloud Cover: 0%	
4-May-2010	Steve Meyers, Chet McGaugh (AMEC)	1000-1445	Temp: 67-74 °F Wind: 2-8 mph Cloud Cover: 0%	Maps 009, 010
3-May-2010	Greg Chatman (Chambers)	1100-1400	Temp: 71-78 °F Wind: 1-5 mph Cloud Cover: 0%	Maps 021, 022
2-May-2010	Greg Chatman (Chambers)	1000-1600	Temp: 64-75 °F Wind: 2-6 mph Cloud Cover: 5-10%	Maps 017, 018
1-May-2010	Greg Chatman (Chambers)	1000-1600	Temp: 60-70 °F Wind: 4-9 mph Cloud Cover: 0%	Maps 016, 017
30-Apr-2010	Greg Chatman (Chambers)	1100-1700	Temp: 65-74 °F Wind: 2-7 mph Cloud Cover: 0%	Maps 013, 014, 015
27-Apr-2010	Greg Chatman (Chambers)	1000-1600	Temp: 70-73 °F Wind: 0-3 mph Cloud Cover: 5-30%	Maps 015, 016
26-Apr-2010	Greg Chatman (Chambers)	1200-1500	Temp: 72-77 °F Wind: 2-6 mph Cloud Cover: 5%	Maps 021, 022
26-Apr-2010	Chet McGaugh (AMEC)	0950-1600	Temp: 72-84 °F Wind: 0-6 mph Cloud Cover: 0%	Maps 004, 005, 006, 007, 008
26-Apr-2010	John Green (AMEC)	0930-1625	Temp: 70-79 °F Wind: 0-9 mph Cloud Cover: <5%	Maps 001, 002, 003, 004
25-Apr-2010	Greg Chatman (Chambers)	1000-1600	Temp: 70-77 °F Wind: 1-9 mph	Maps 019, 020

			Cloud Cover: 0%	
24-Apr-2010	Greg Chatman (Chambers)	1000-1600	Temp: 66-74 °F Wind: 0-4 mph Cloud Cover: 0%	Maps 017, 018
23-Apr-2010	Greg Chatman (Chambers)	0930-1530	Temp: 60-67 °F Wind: 0-8 mph Cloud Cover: 0-20%	Maps 015, 016
19-Apr-2010	Greg Chatman (Chambers)	1000-1600	Temp: 67-75 °F Wind: 0-7 mph Cloud Cover: 0%	Maps 013, 014
17-Apr-2010	Greg Chatman (Chambers)	1200-1500	Temp: 73-78 °F Wind: 2-7 mph Cloud Cover: 0%	Maps 021, 022
16-Apr-2010	Greg Chatman (Chambers)	1000-1600	Temp: 67-76 °F Wind: 2-8 mph Cloud Cover: 0%	Maps 015, 016
15-Apr-2010	Greg Chatman (Chambers)	1000-1600	Temp: 62-76 °F Wind: 0-4 mph Cloud Cover: 0%	Maps 019, 020
15-Apr-2010	Chet McGaugh, John Green (AMEC)	1100-1600	Temp: 68-70°F Wind: 2-10 mph Cloud Cover: high clouds- overcast	Maps 005, 006, 007
15-Apr-2010	John Green (AMEC)	1045-1630	Temp: 63-71 °F Wind: 0-9 mph Cloud Cover: hazy-overcast	Maps 004, 005
14-Apr-2010	Greg Chatman (Chambers)	1000-1600	Temp: 63-72 °F Wind: 0-7 mph Cloud Cover: 0-10%	Maps 017, 018
14-Apr-2010	John Green, Chet McGaugh (AMEC)	1105-1700	Temp: 59-64 °F Wind: 1-7 mph	Maps 008, 009, 010, 012

			Cloud Cover: 0%	
13-Apr-2010	Greg Chatman (Chambers)	1000-1600	Temp: 61-70 °F Wind: 0-8 mph Cloud Cover: 20%	Maps 016, 017
10-Apr-2010	Greg Chatman (Chambers)	1000-1600	Temp: 69-81 °F Wind: 2-8 mph Cloud Cover: 0%	Maps 013, 014
9-Apr-2010	Greg Chatman (Chambers)	1300-1600	Temp: 77-82 °F Wind: 2-8 mph Cloud Cover: 0%	Maps 021, 022
8-Apr-2010	Greg Chatman (Chambers)	1000-1600	Temp: 68-83 °F Wind: 1-6 mph Cloud Cover: 0%	Maps 015, 016
8-Apr-2010	Steve Myers, Chet McGaugh, John Green (AMEC)	0940-1330	Temp: 69-72 °F Wind: 0-6 mph Cloud Cover: 0%	Maps 001, 002, 003
6-Apr-2010	Greg Chatman (Chambers)	1000-1600	Temp: 60-73 °F Wind: 0-7 mph Cloud Cover: 0%	Maps 019, 020
4-Apr-2010	Greg Chatman (Chambers)	0930-1530	Temp: 62-71 °F Wind: 1-7 mph Cloud Cover: 0-15%	Maps 017, 018
3-Apr-2010	Greg Chatman (Chambers)	0930-1530	Temp: 60-67 °F Wind: 0-10 mph Cloud Cover: 0%	Maps 016, 017
2-Apr-2010	Greg Chatman (Chambers)	0900-1500	Temp: 62-73 °F Wind: 0-5 mph Cloud Cover: 0%	Maps 013, 014, 015
30-Mar-2010	Greg Chatman (Chambers)	1200-1500	Temp: 72-74 °F Wind: 2-6 mph Cloud Cover: 0%	Maps 021, 022

29-Mar-2010	Greg Chatman (Chambers)	0930-1530	Temp: 69-86 °F Wind: 0-5 mph Cloud Cover: 0%	Maps 015, 016
28-Mar-2010	Greg Chatman (Chambers)	1000-1600	Temp: 67-70 °F Wind: 3-12 mph Cloud Cover: 0%	Maps 019, 020
26- Mar-2010	Greg Chatman (Chambers)	0930-1530	Temp: 61-71 °F Wind: 0-8 mph Cloud Cover: 0%	Maps 017, 018
25-Mar-2010	Greg Chatman (Chambers)	0900-1500	Temp: 63-70 °F Wind: 1-9 mph Cloud Cover: 0%	Maps 015, 016
24-Mar-2010	Greg Chatman (Chambers)	0900-1500	Temp: 66-80 °F Wind: 0-8 mph Cloud Cover: 0%	Maps 013, 014



APPENDIX E – SURVEY RESULTS MAP OF QCB HOST PLANT LOCATIONS

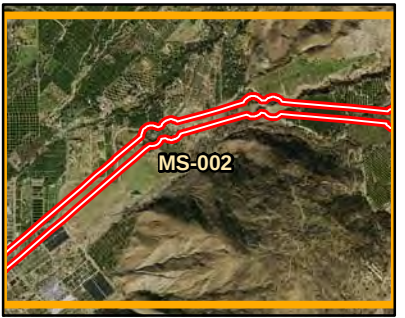


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-002

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

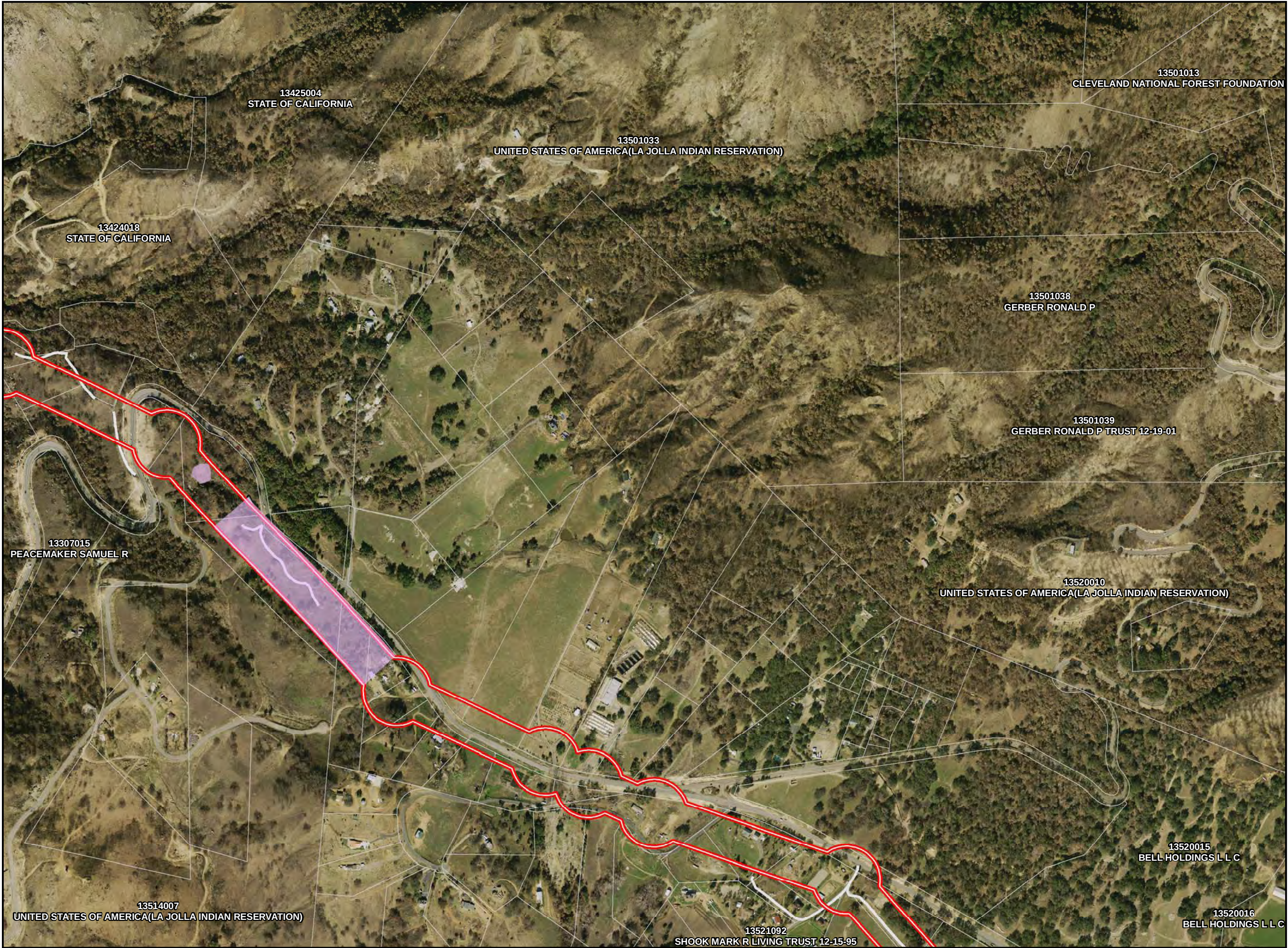
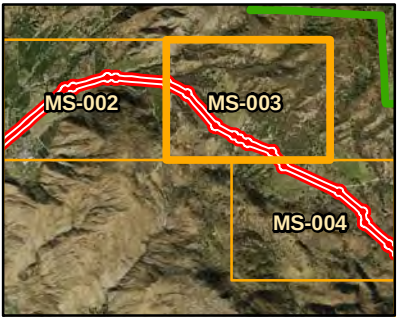


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-003

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

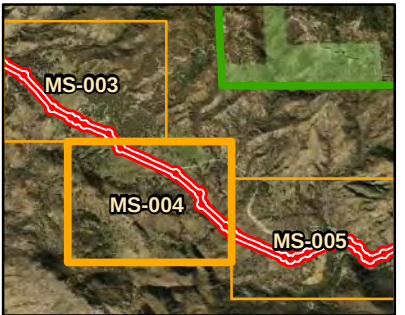
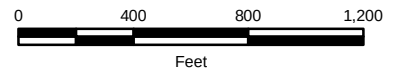


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-004

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant



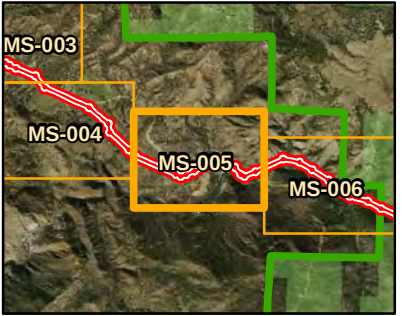
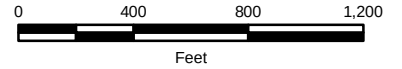


**QUINO CHECKERSPOT
HOST PLANT LOCATIONS**

PAGE: MS-005

Legend

- Survey Area
- TCM Access Road
- USFS Managed Lands
- Cleveland National Forest
Congressional District Boundary
- Parcels
- USFWS Occupied Habitat
- QCB Host Plant

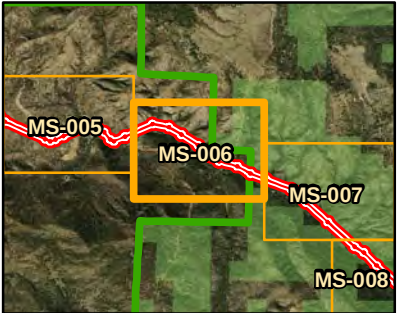


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-006

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

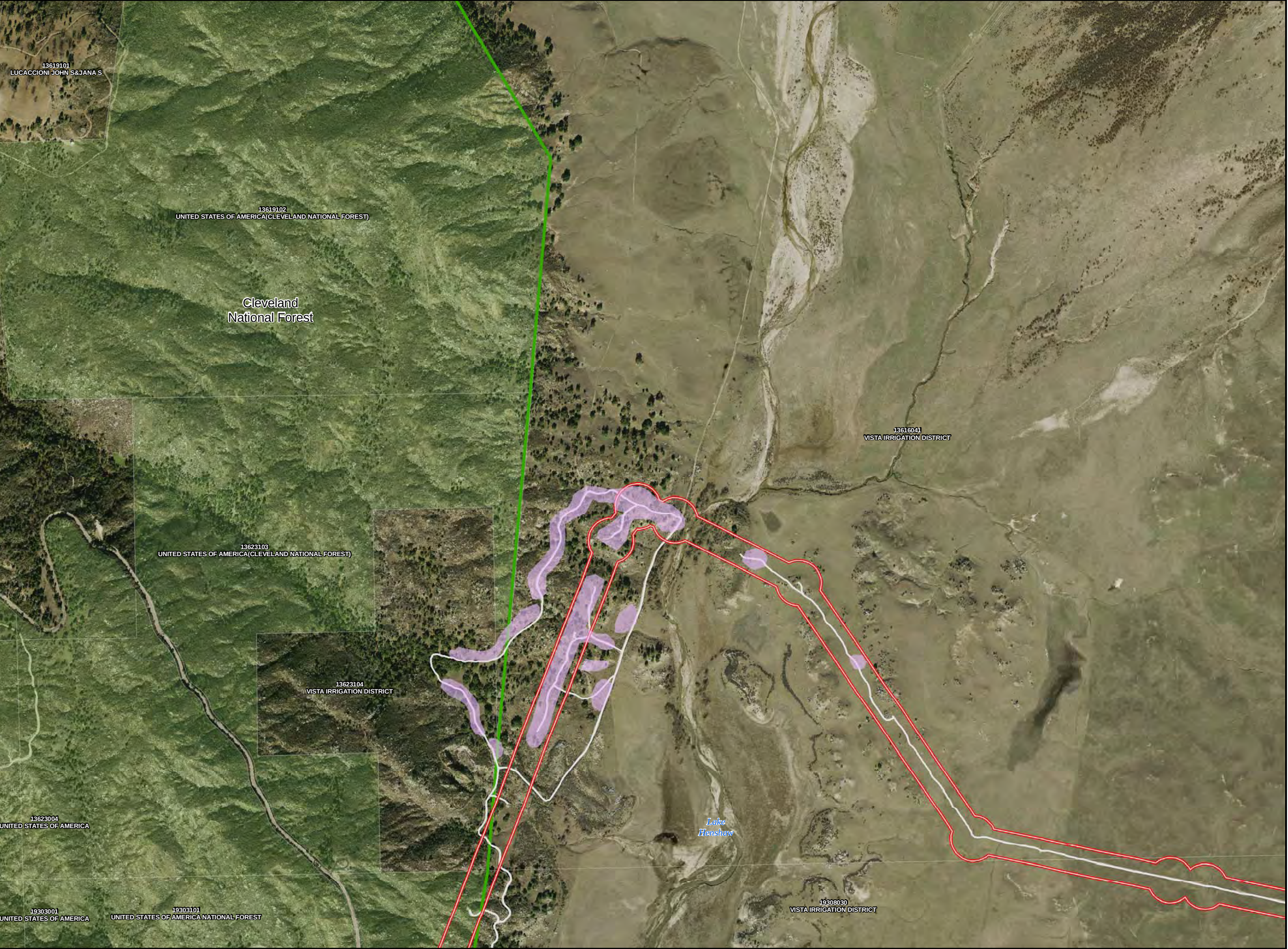
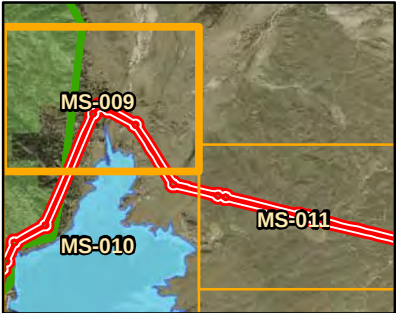
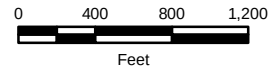


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-009

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

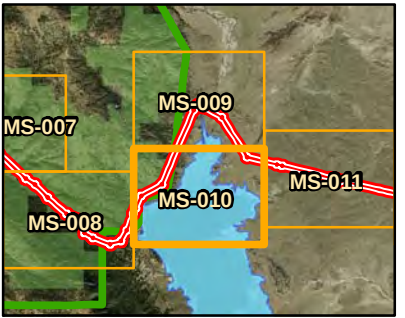


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-010

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant



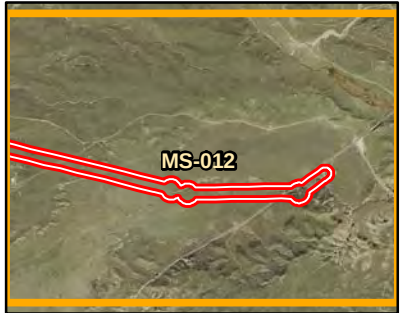
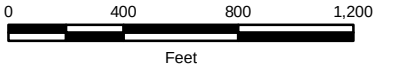
Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

13616041
VISTA IRRIGATION DISTRICT

13709035
VISTA IRRIGATION DISTRICT

19308030
VISTA IRRIGATION DISTRICT

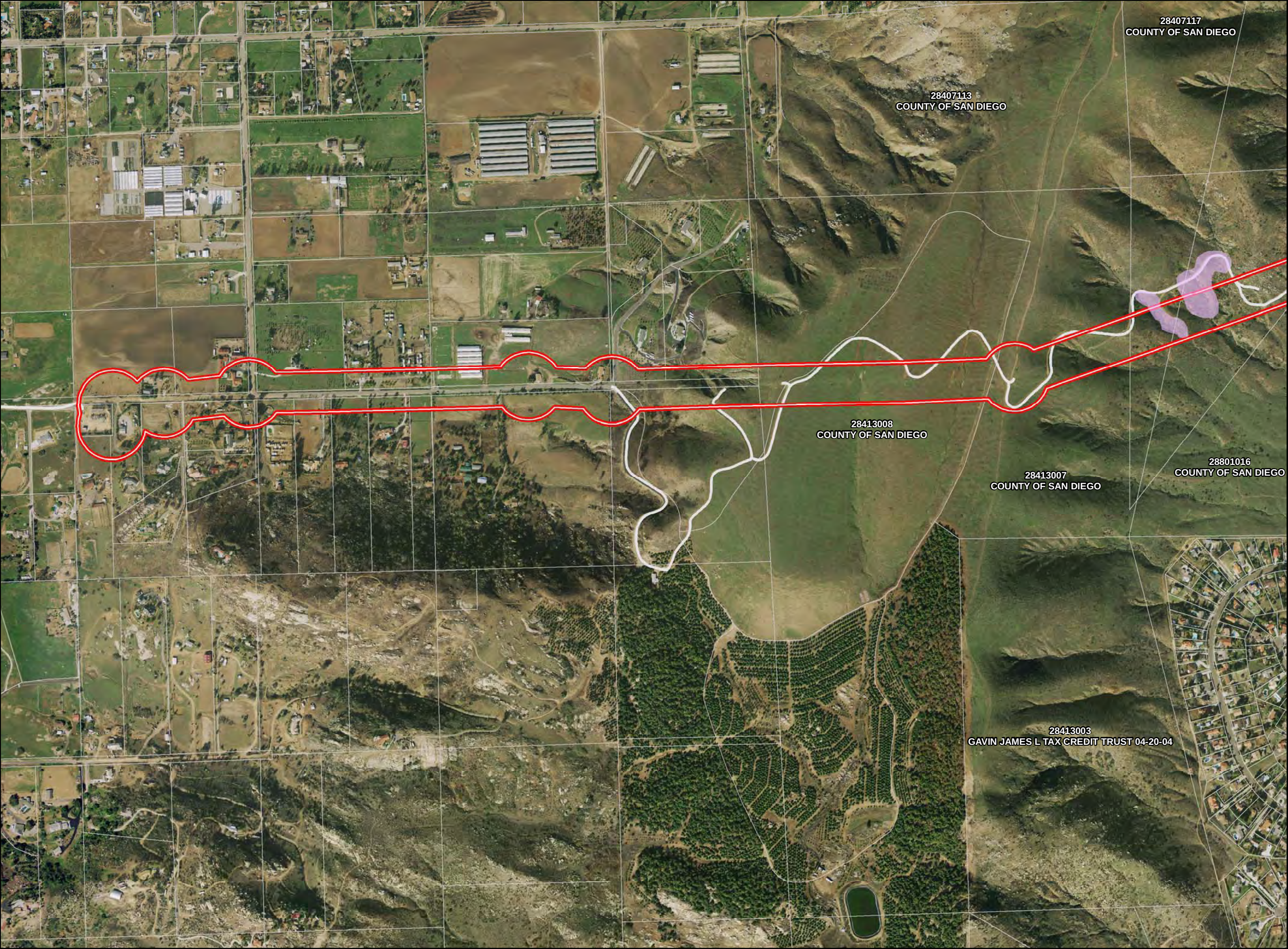
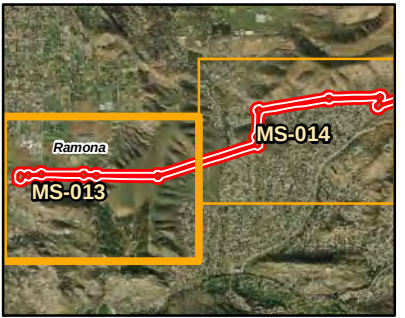


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-013

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

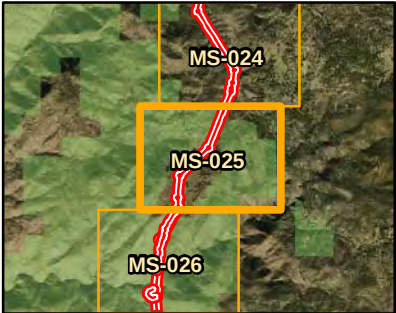
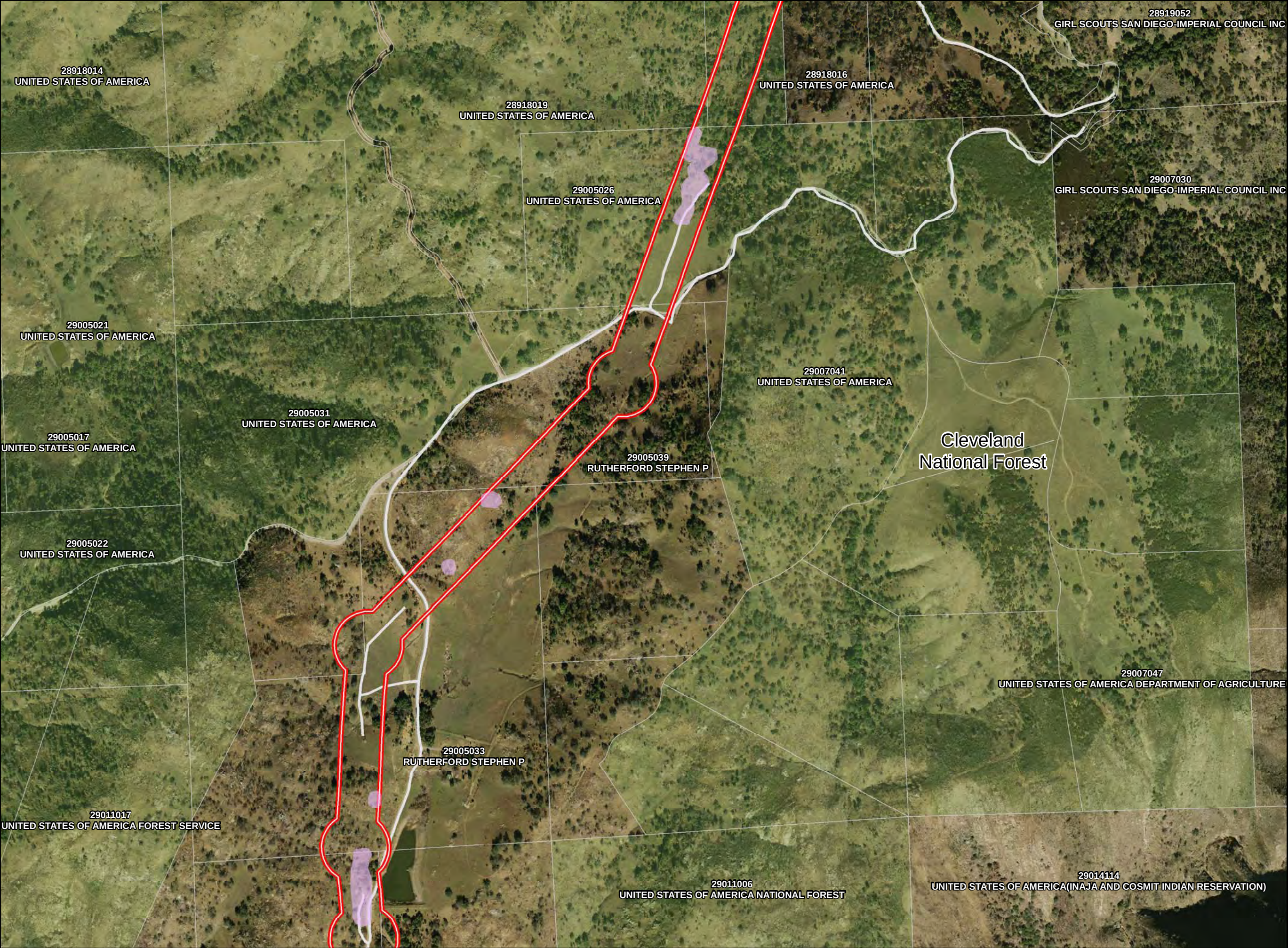


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-025

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

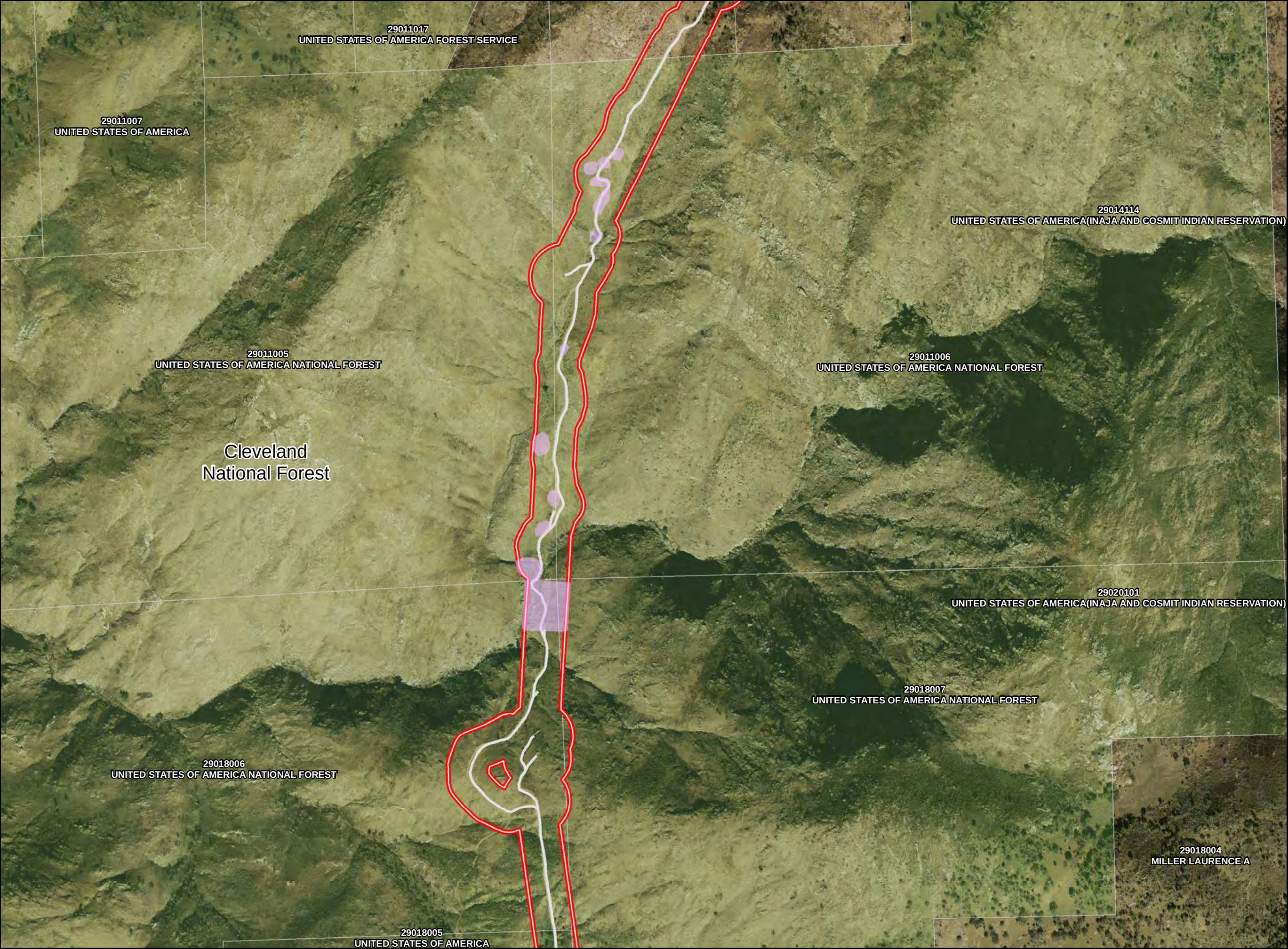
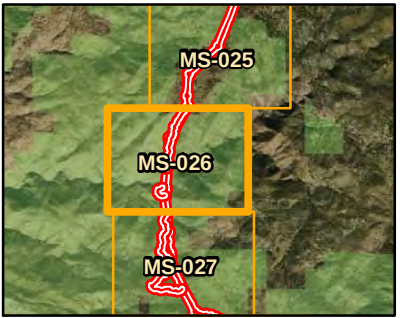


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-026

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

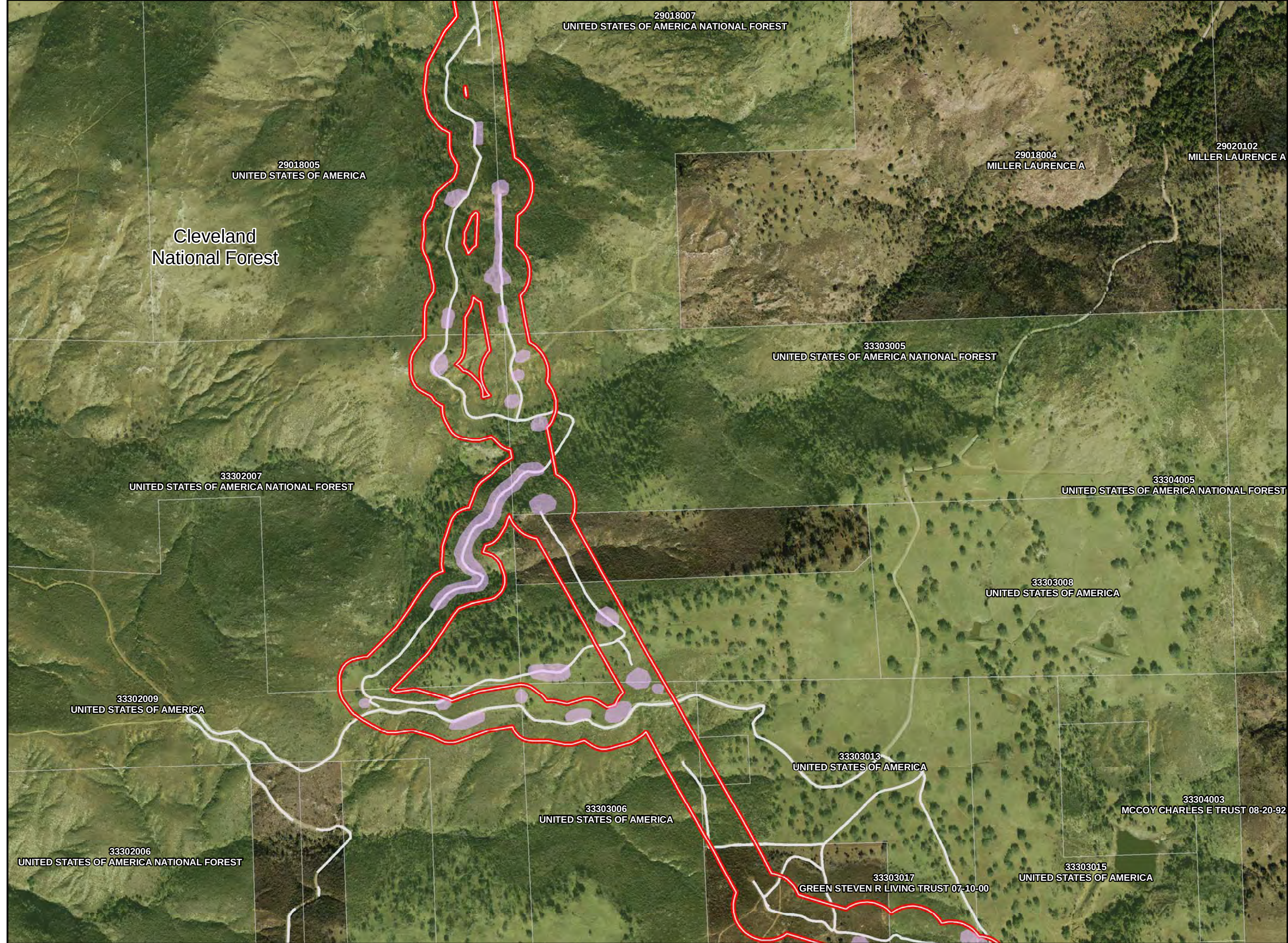
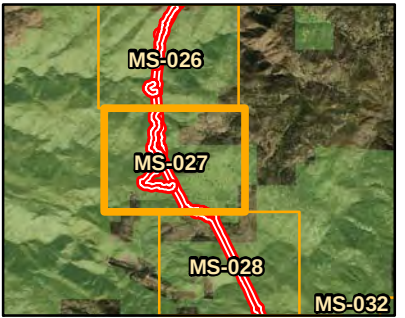


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-027

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

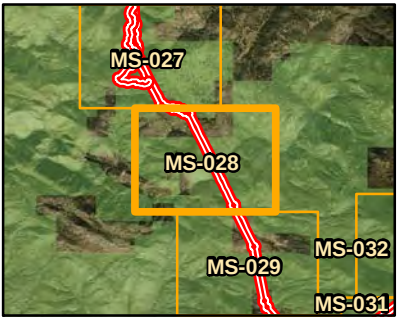
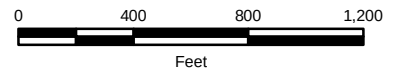


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-028

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

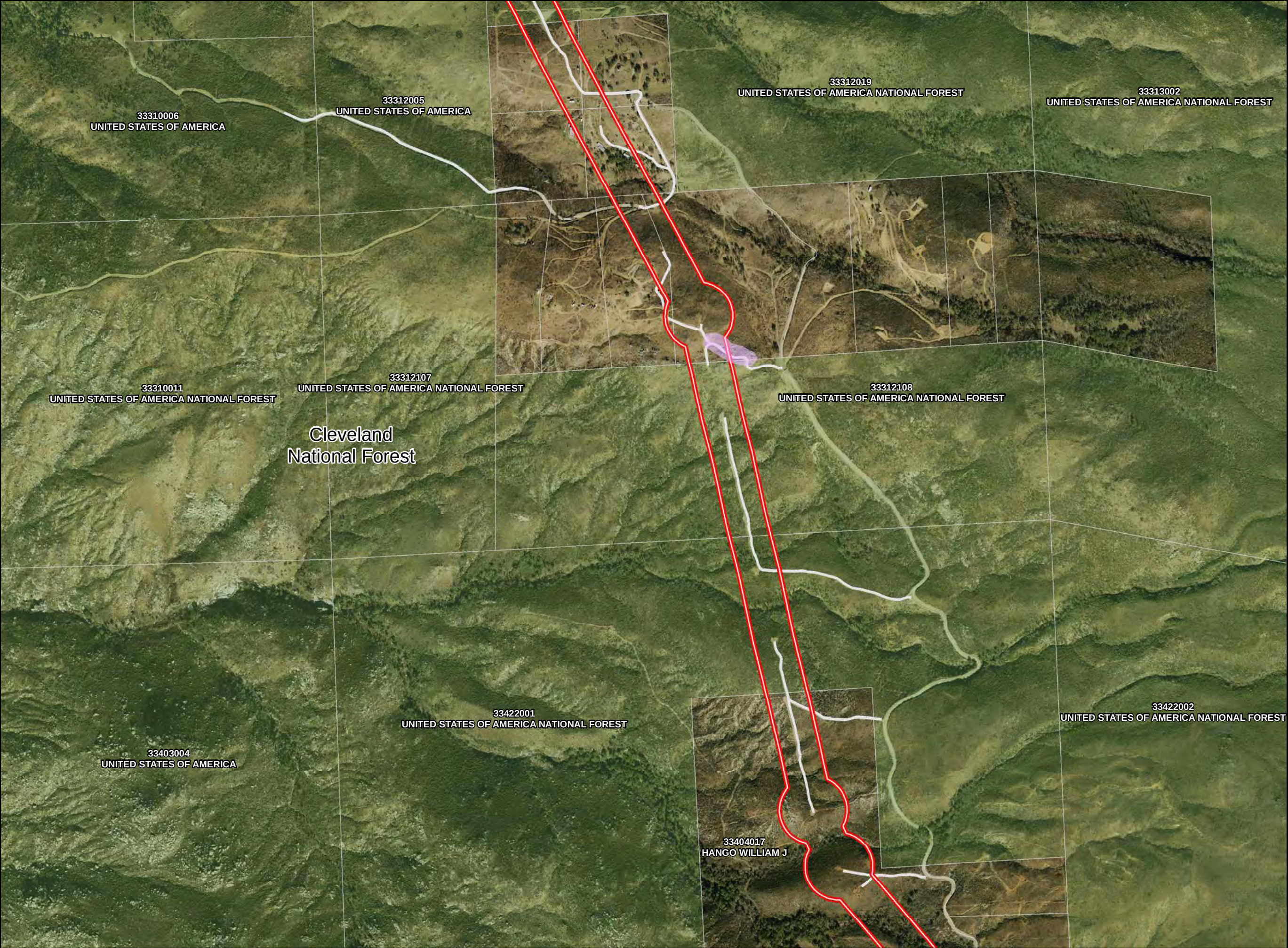
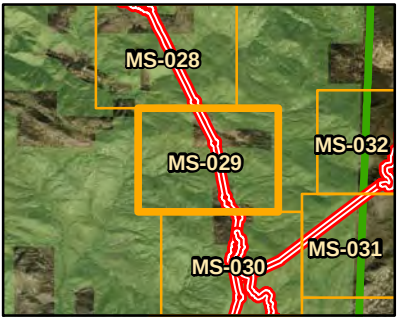


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-029

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

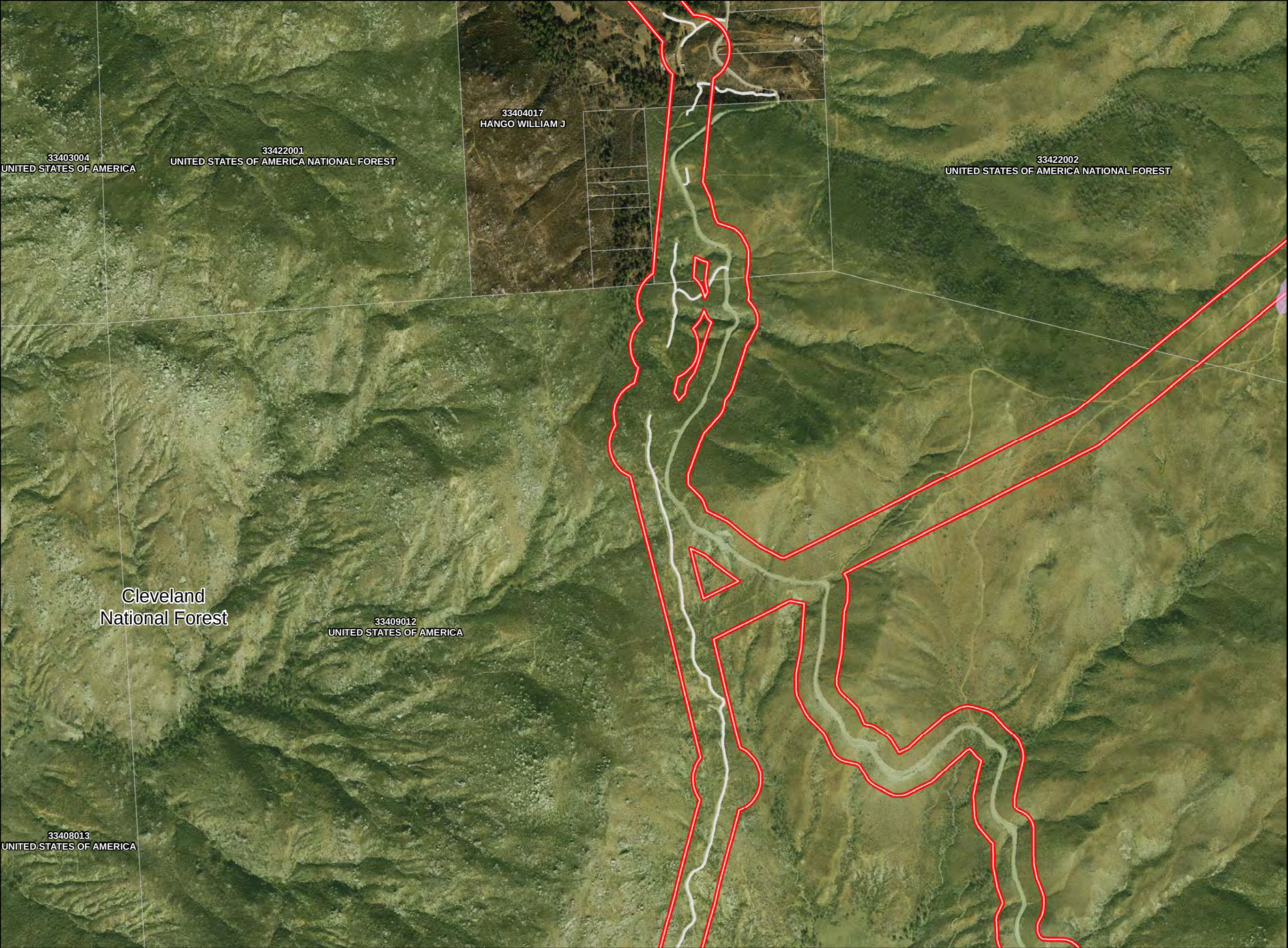
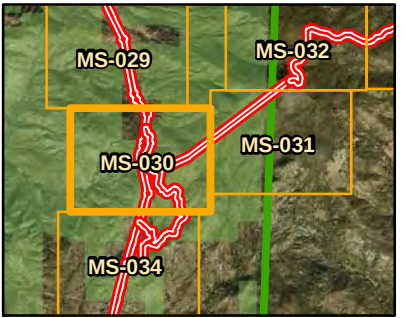


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-030

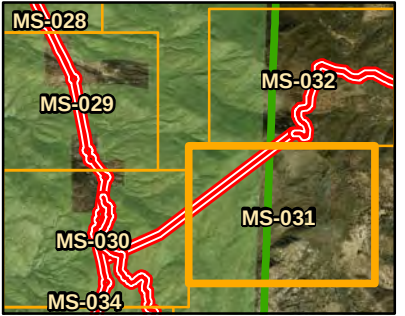
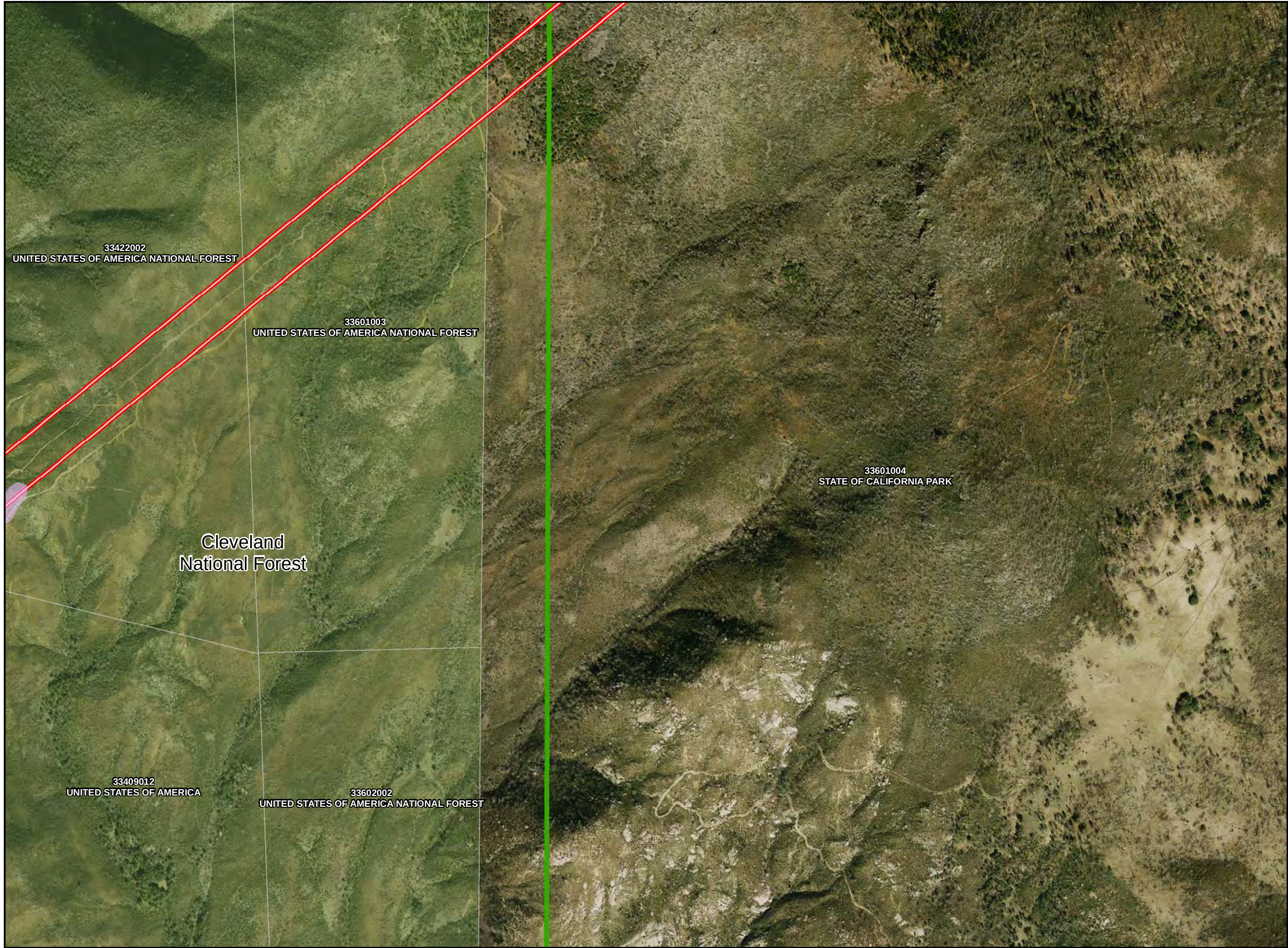
Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant



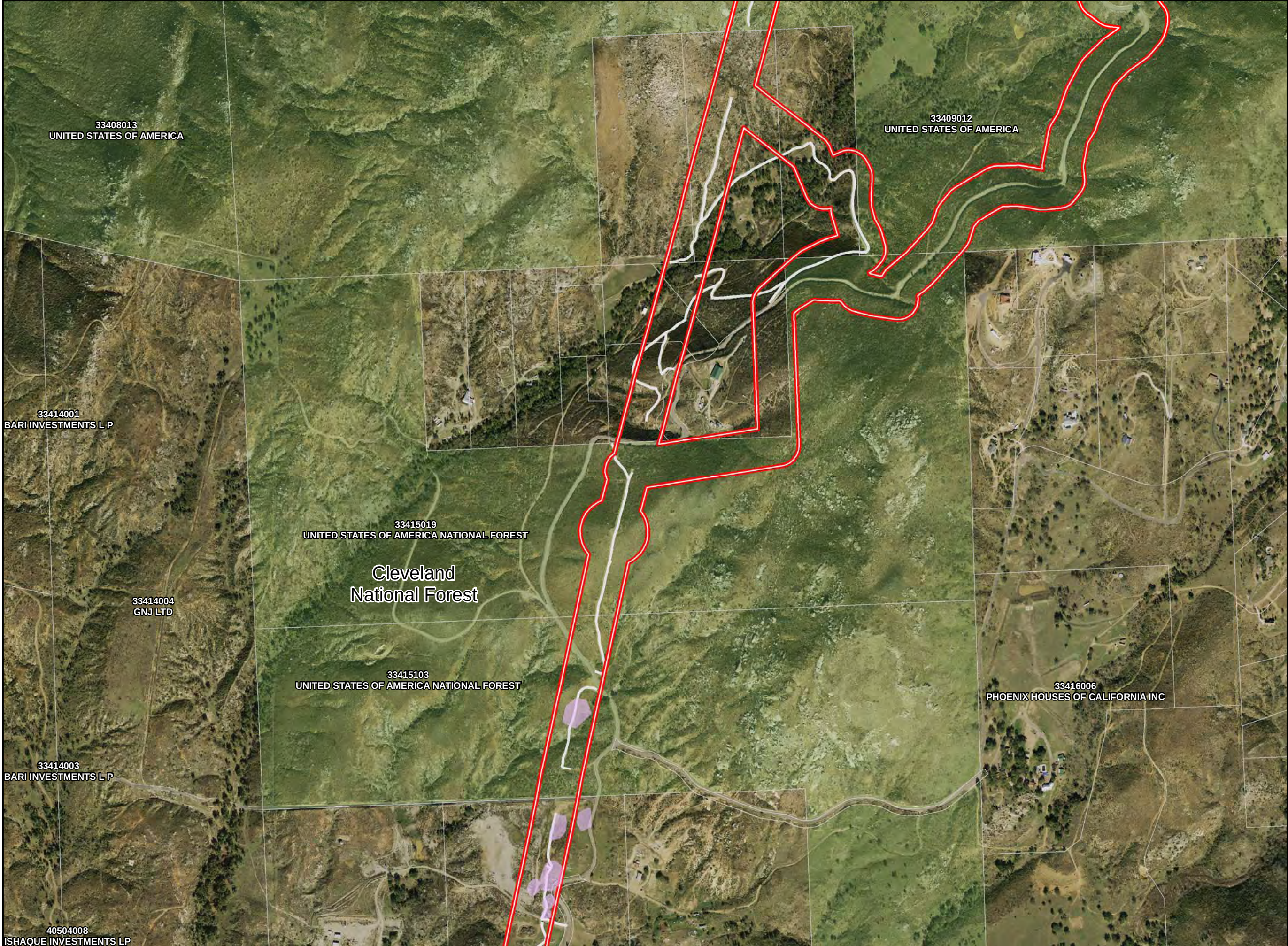
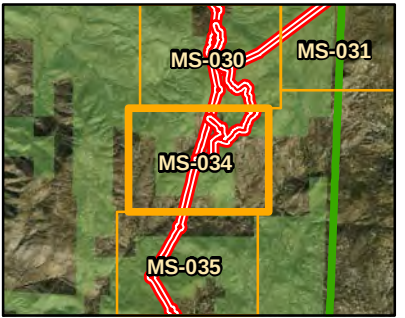
Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant



Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

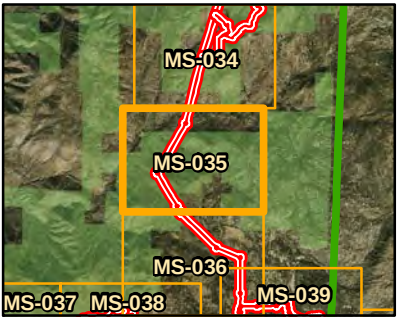
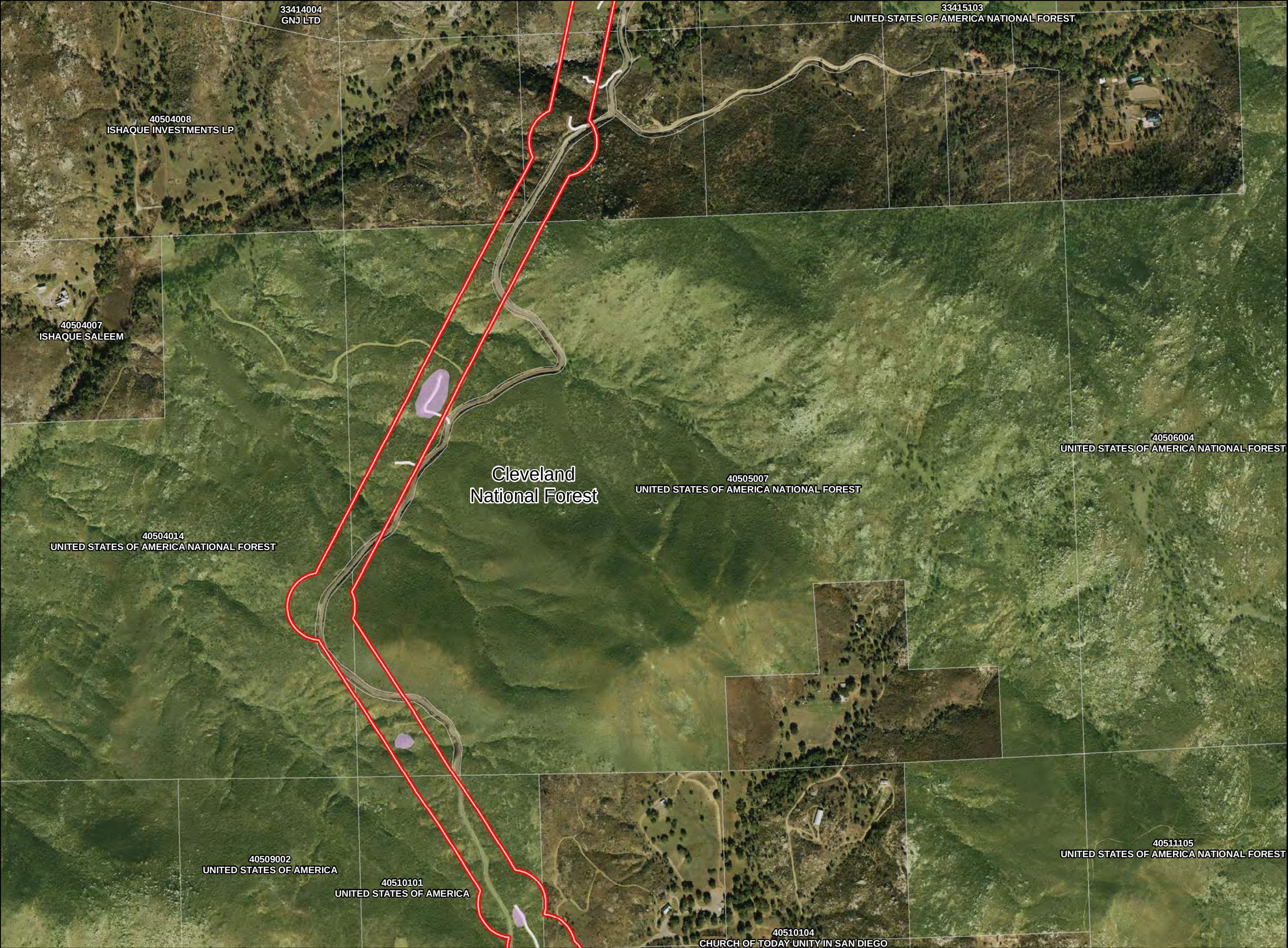


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-035

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

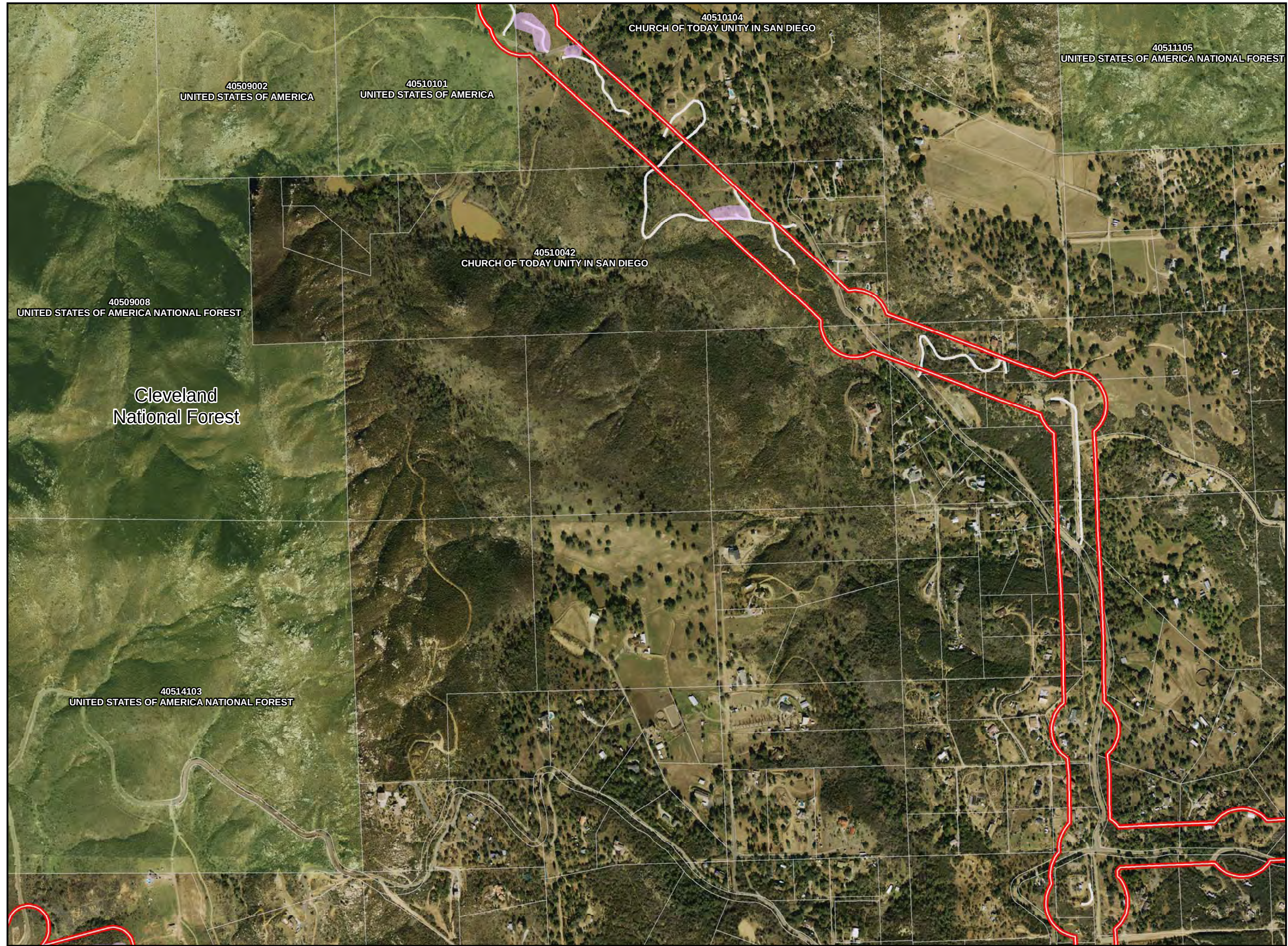
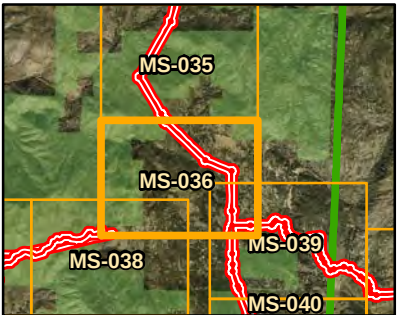


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-036

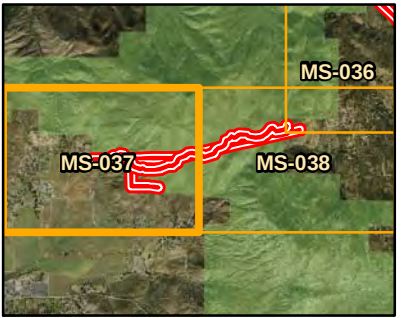
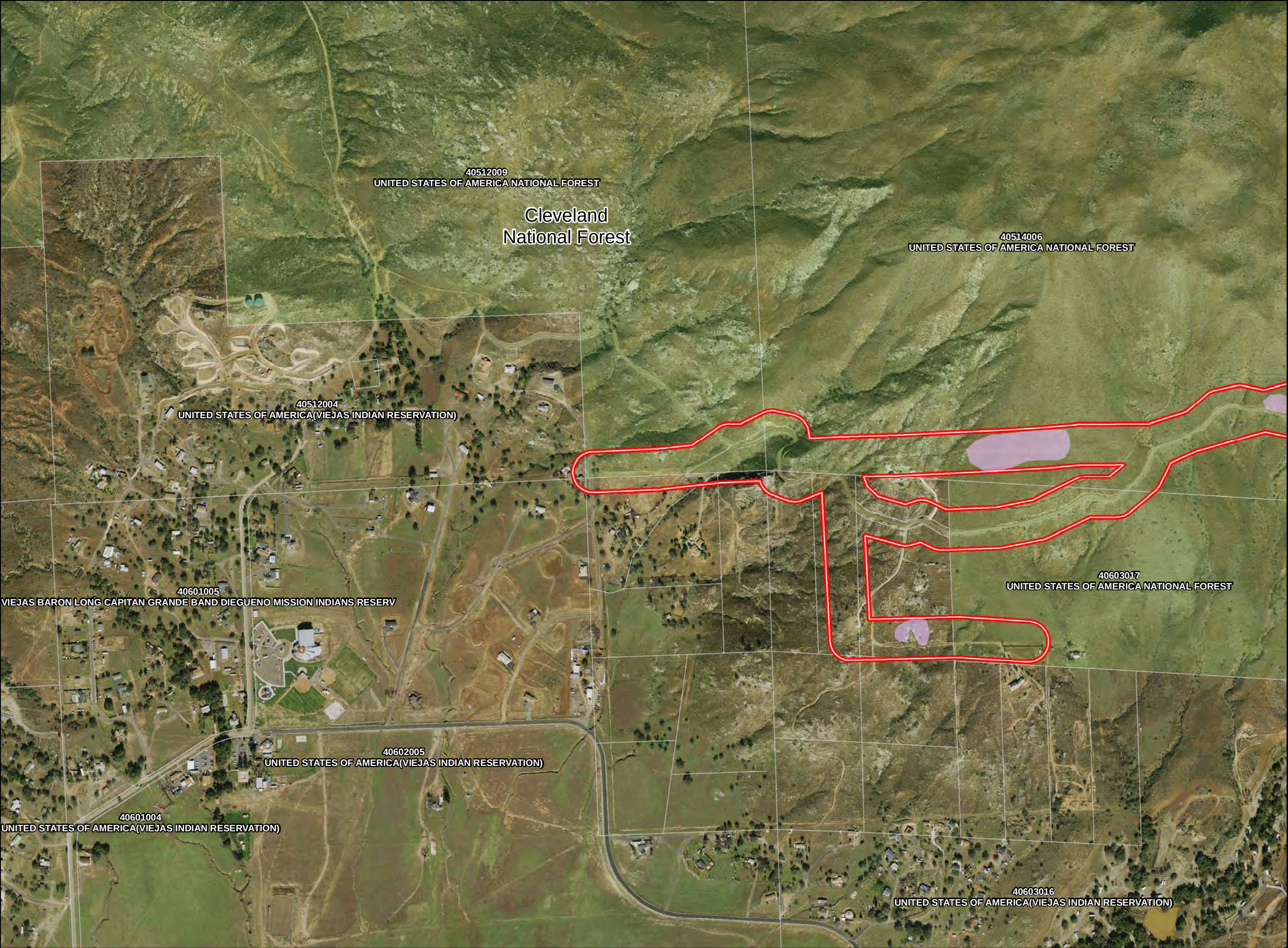
Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant



Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

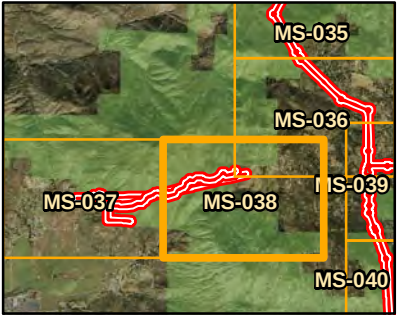
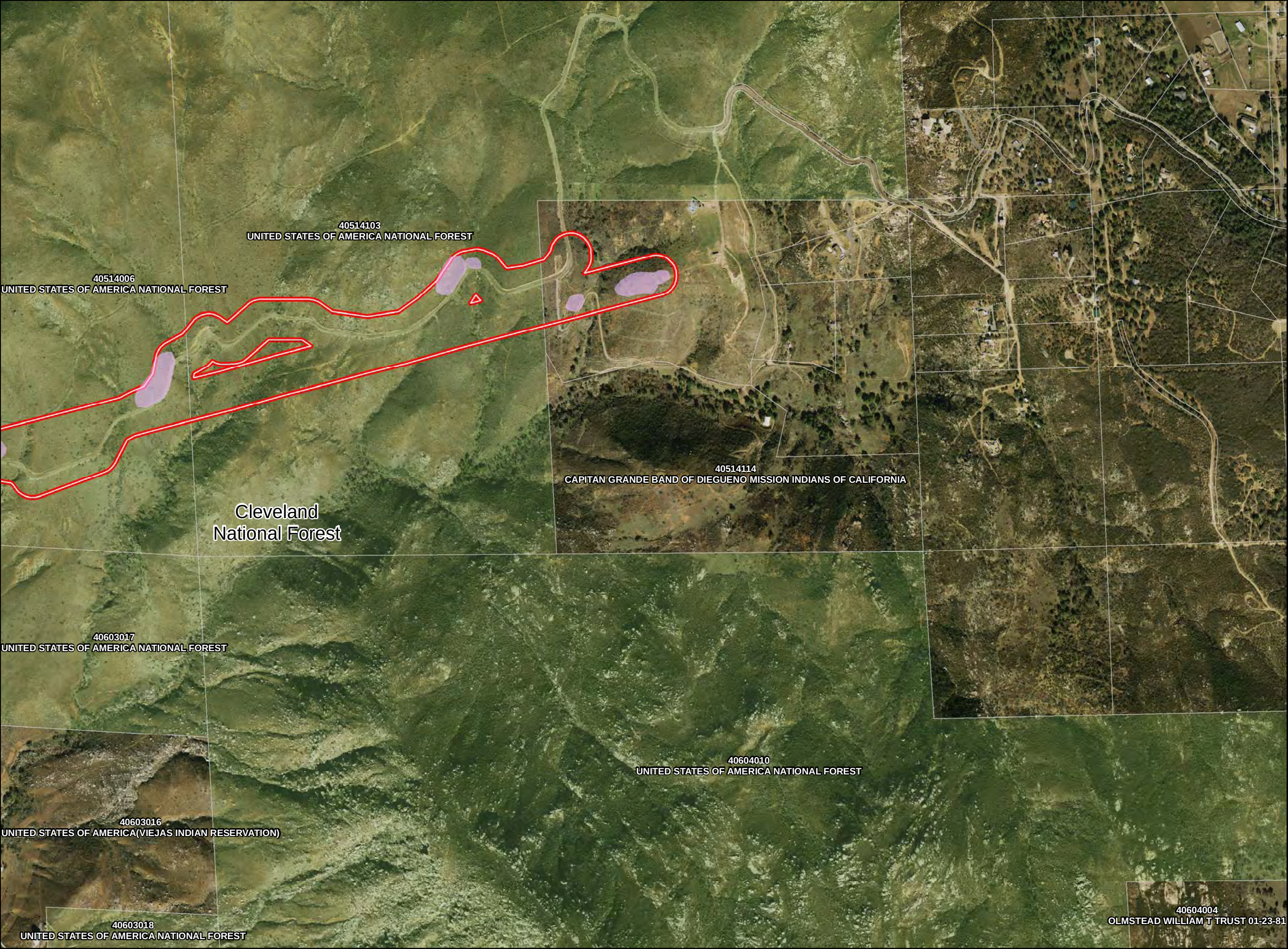


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-038

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

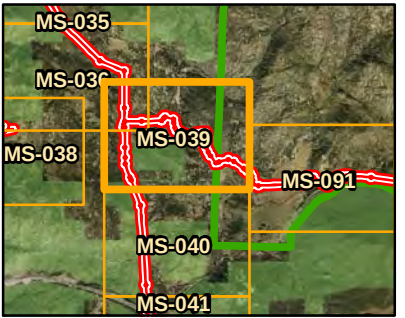
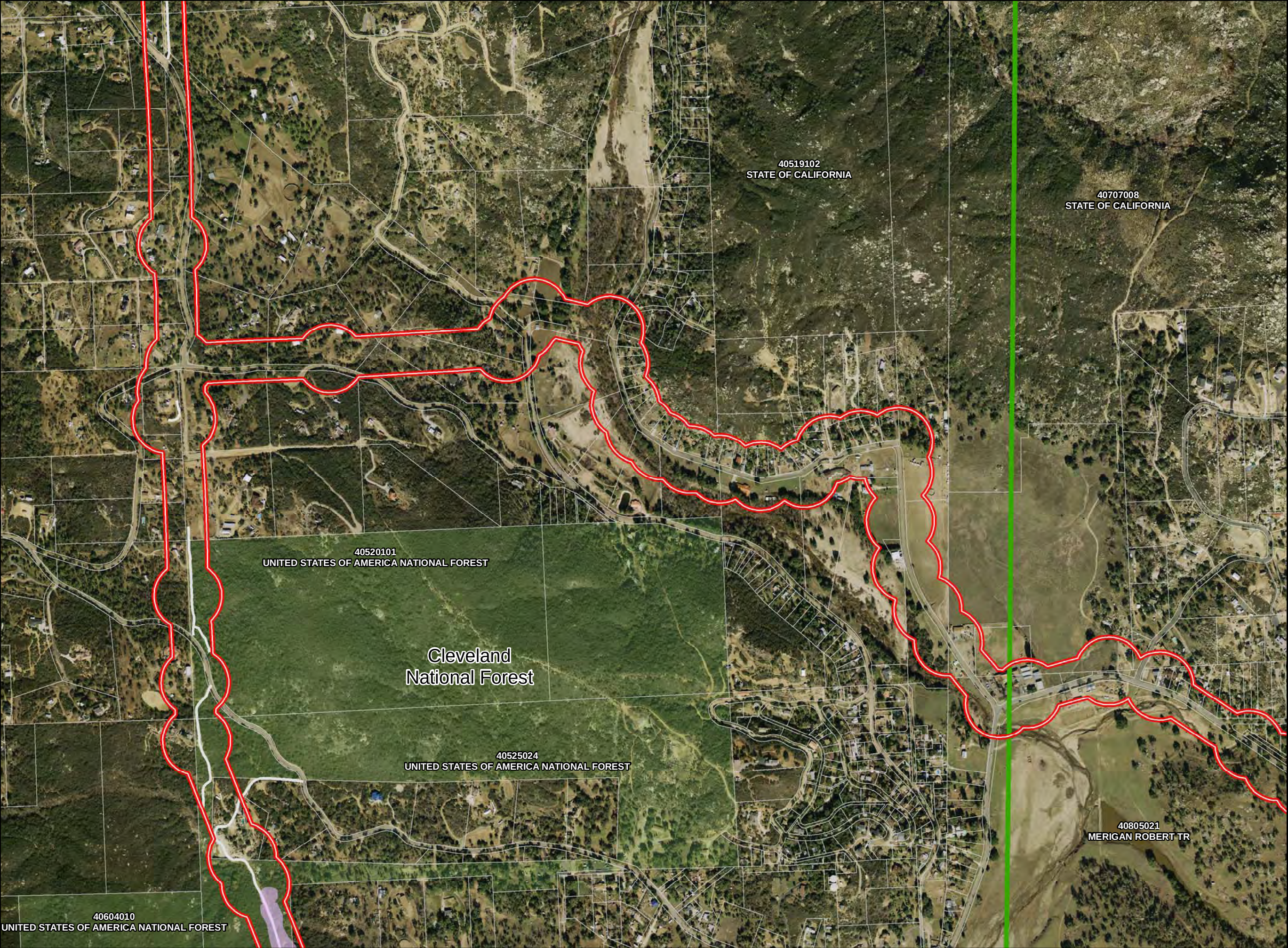


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-039

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

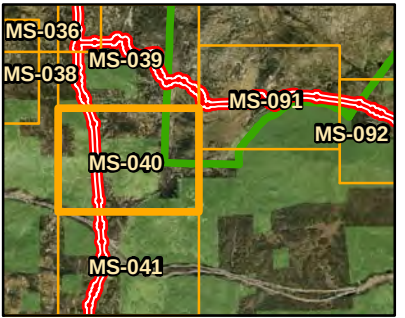
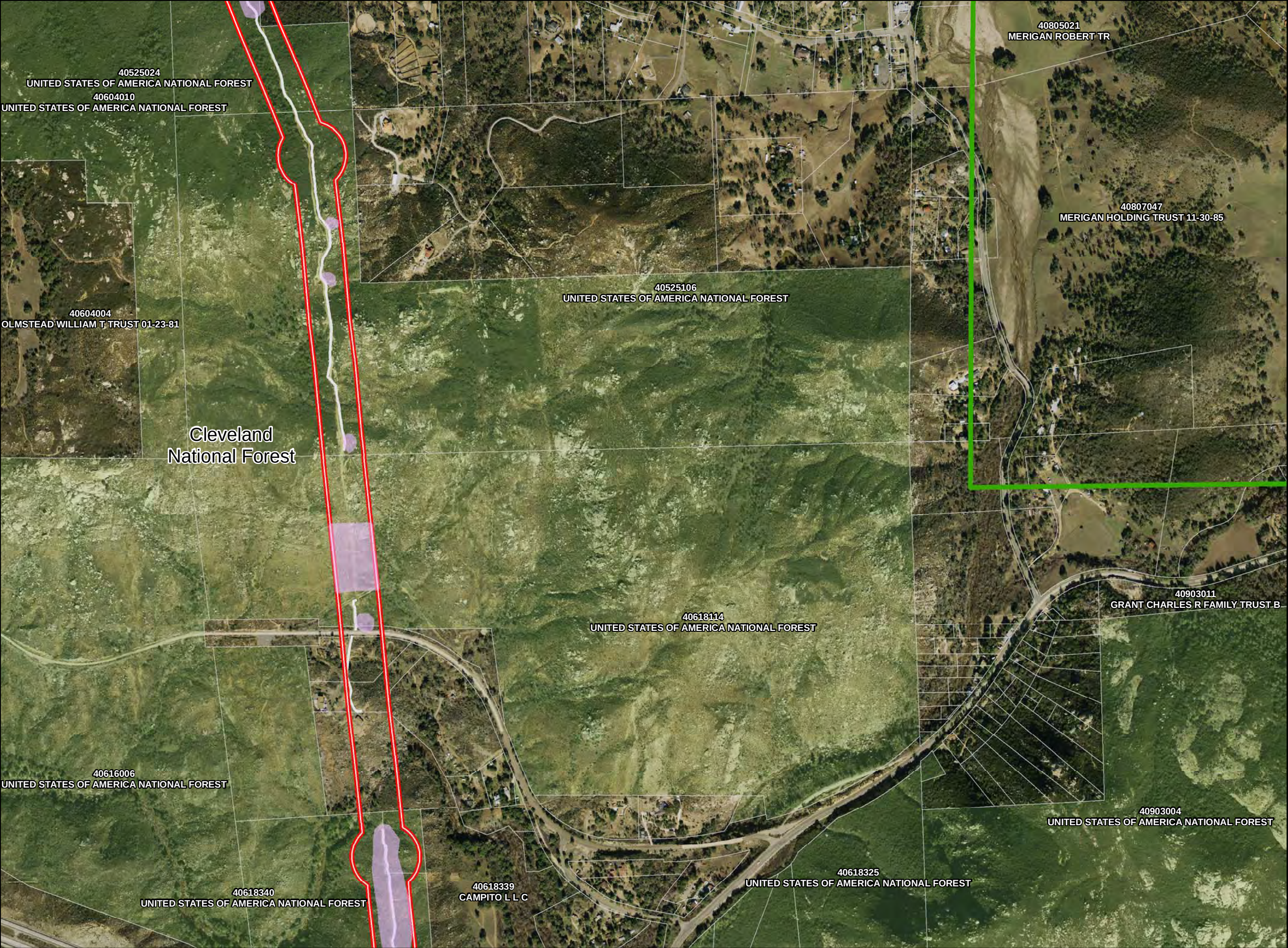


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-040

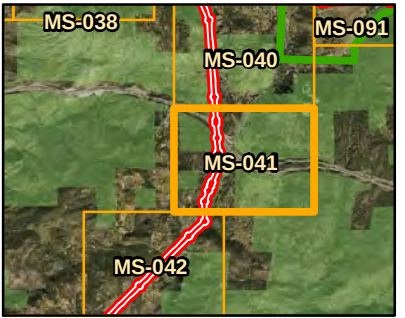
Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant



Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

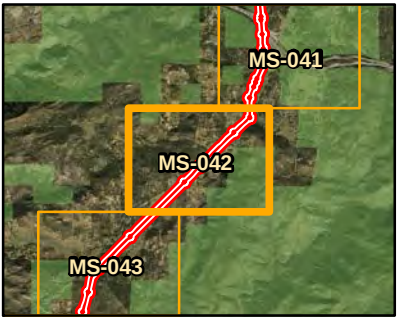


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-042

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

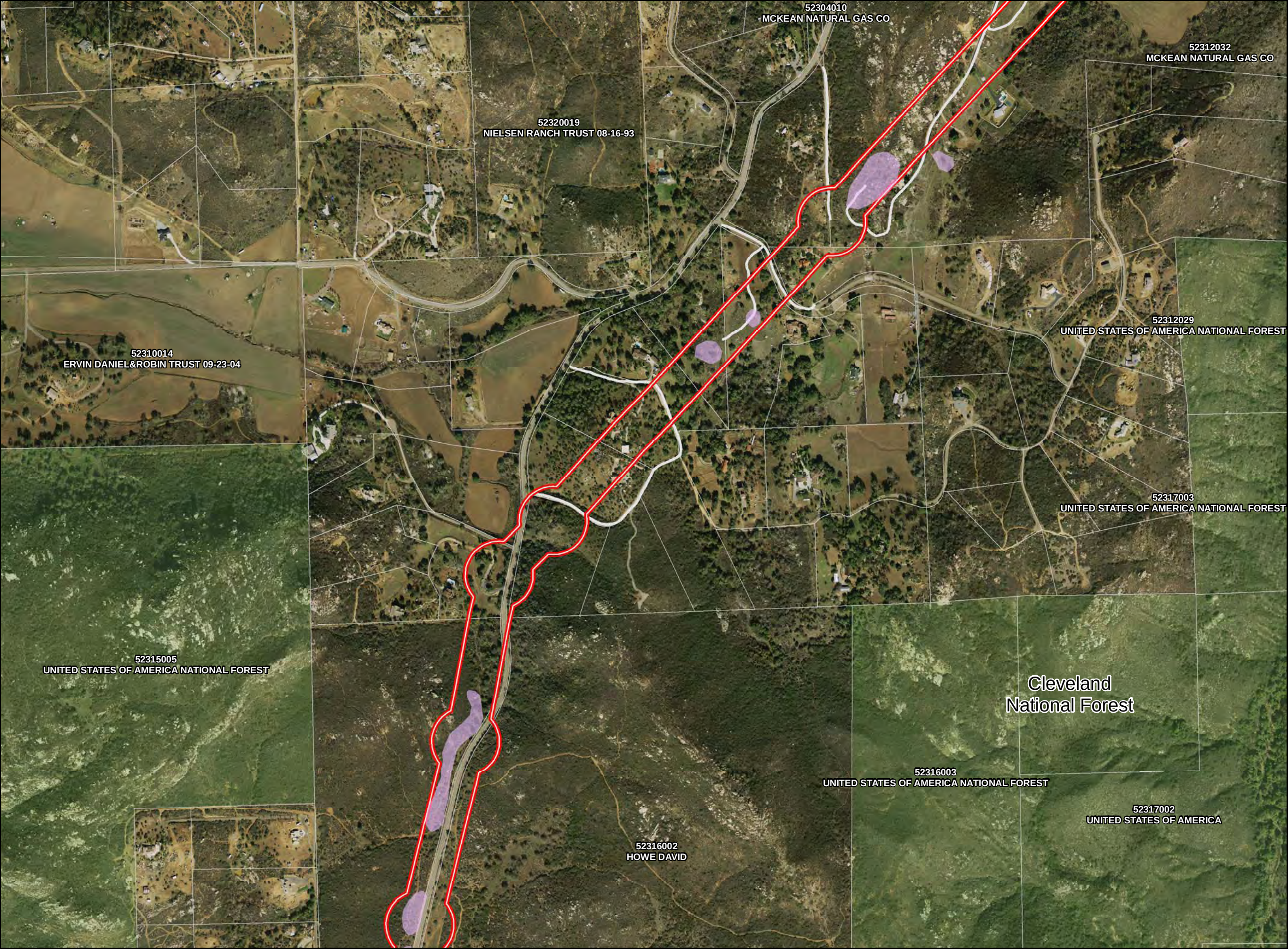
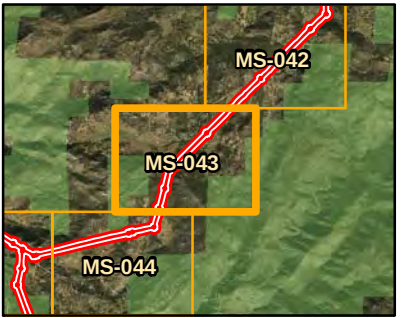


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-043

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

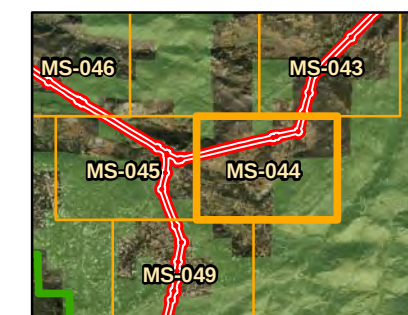


QUINO CHECKERSPOT HOST PLANT LOCATIONS

PAGE: MS-044

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

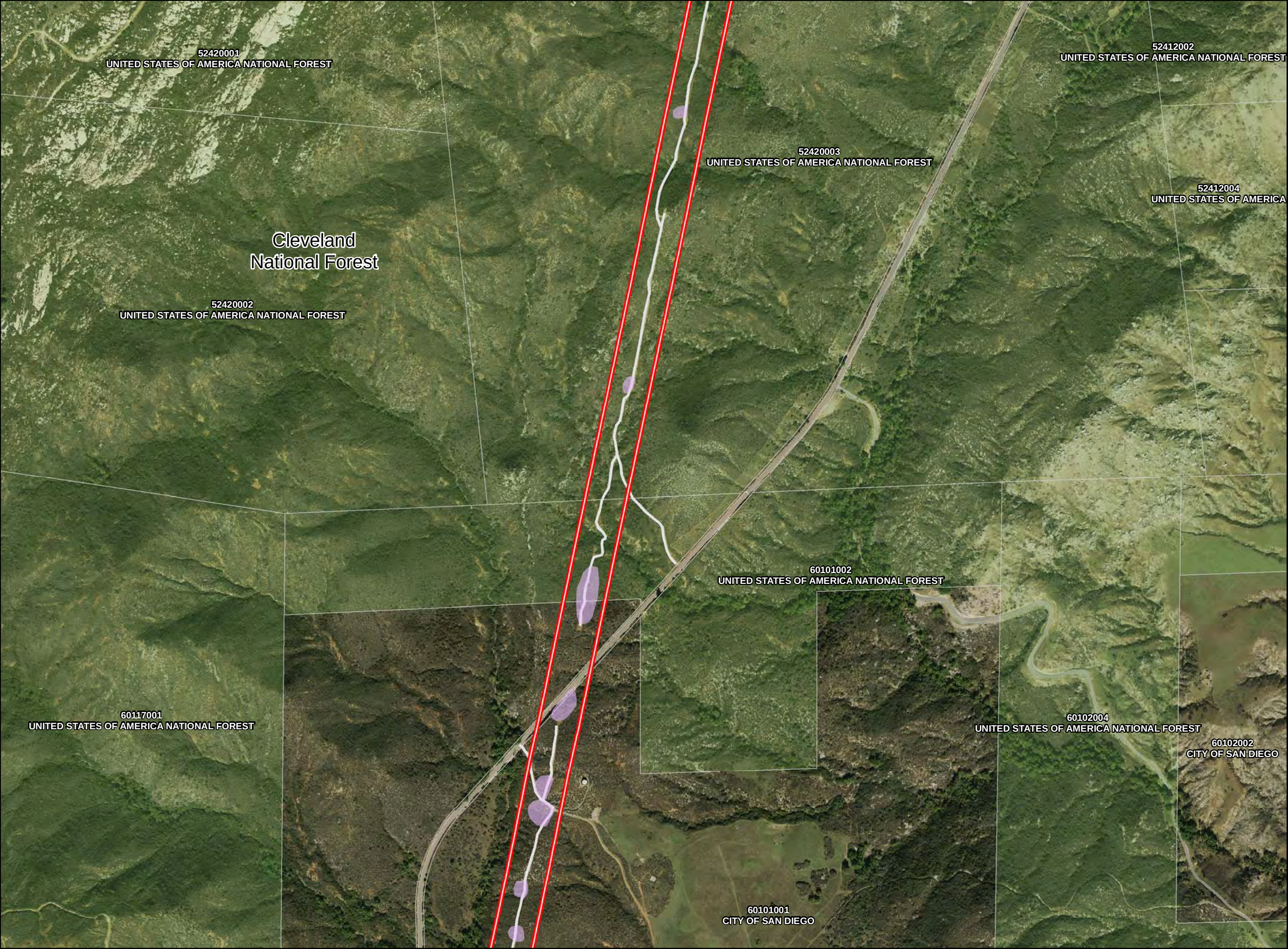
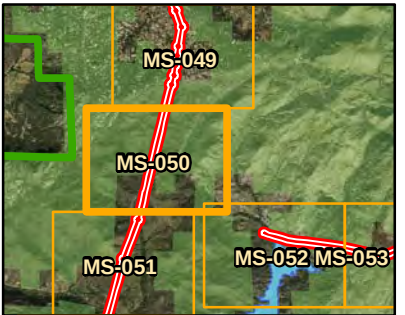
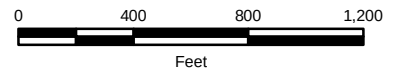


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-050

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

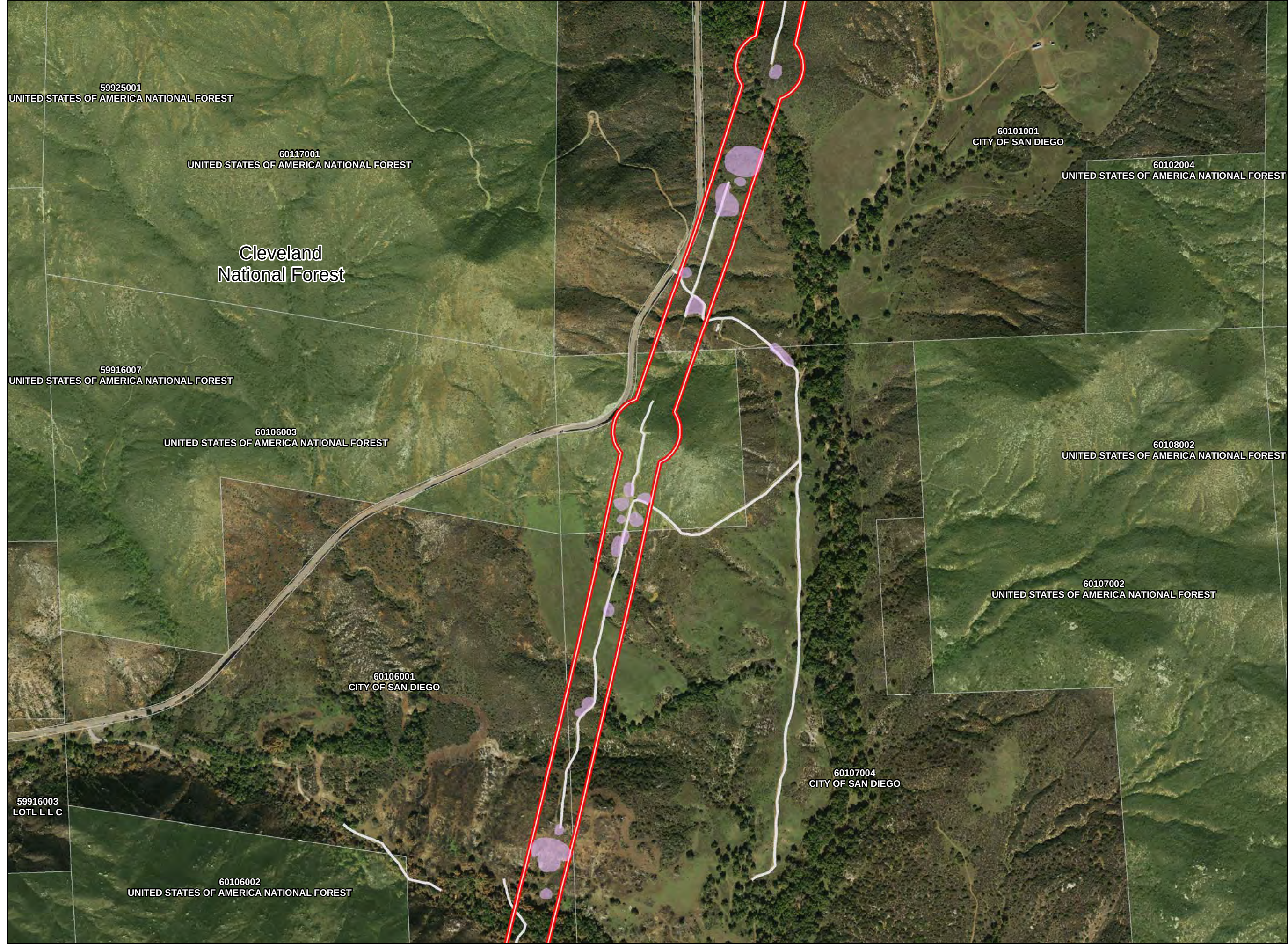
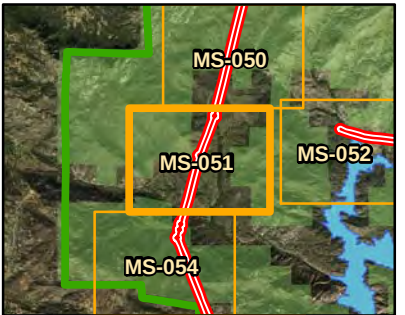


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-051

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

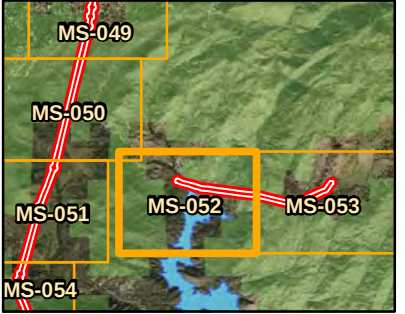


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-052

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

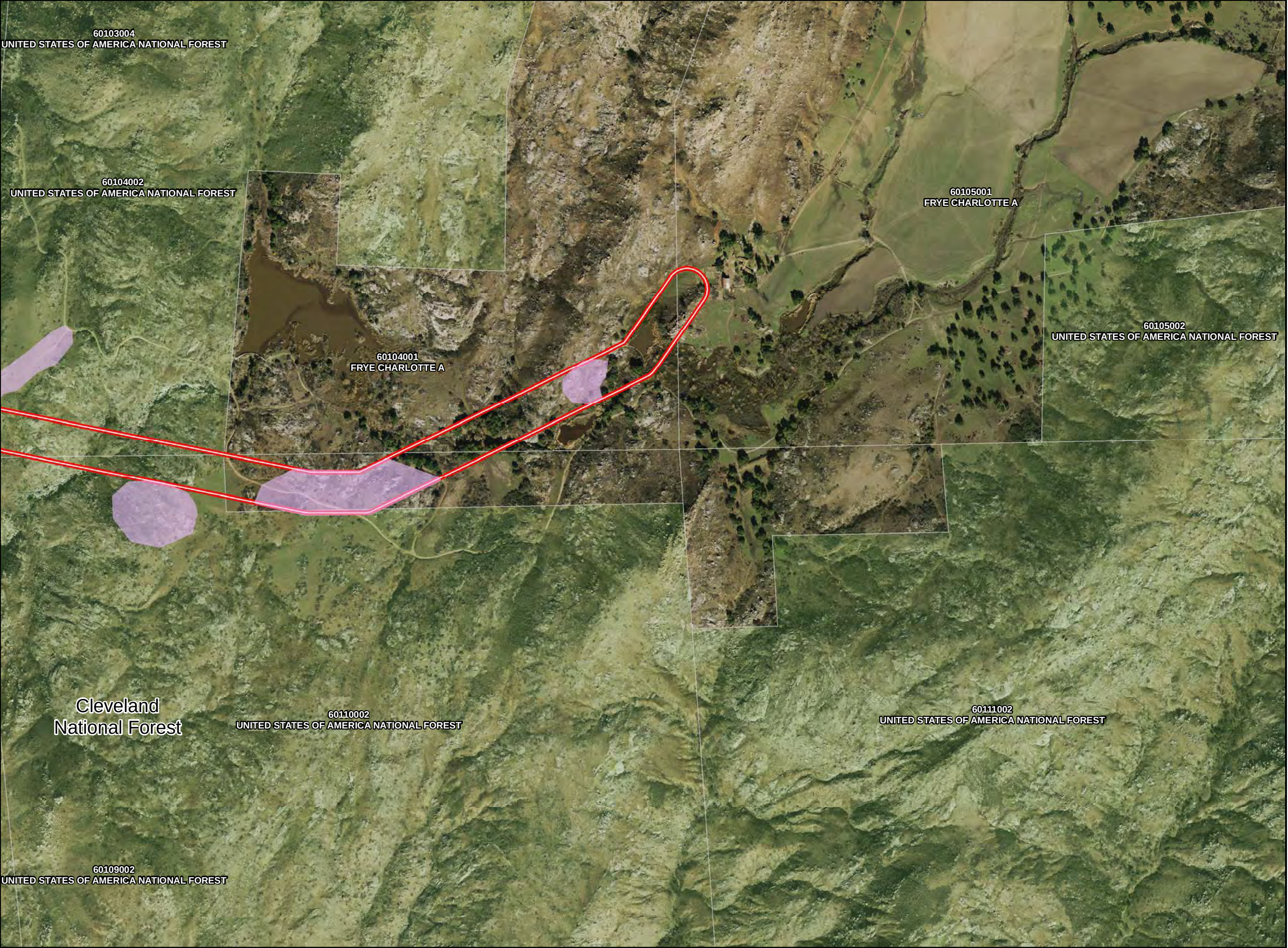
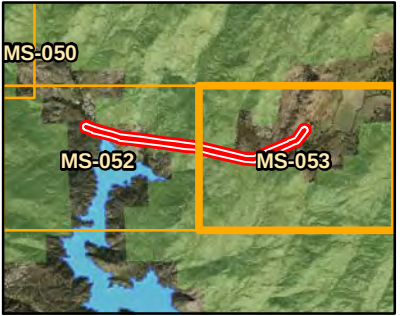


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-053

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

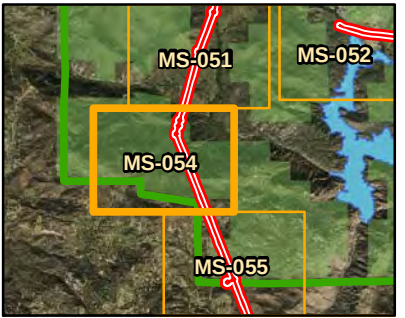
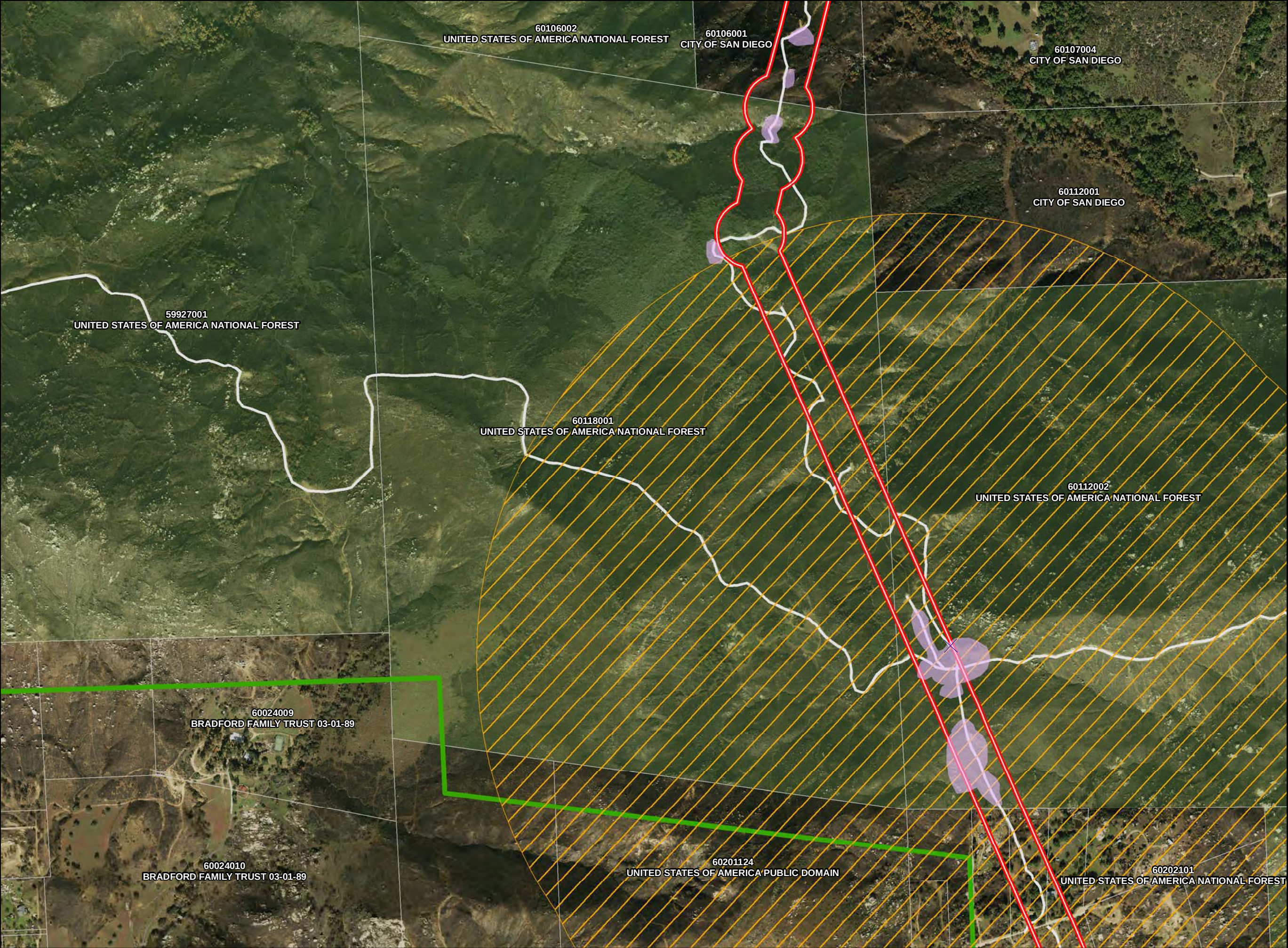


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-054

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

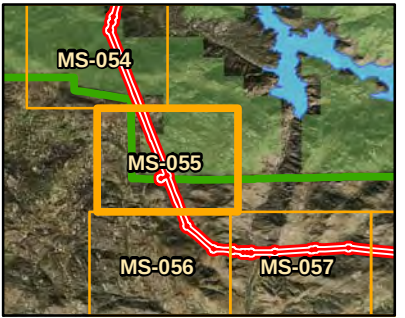


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-055

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

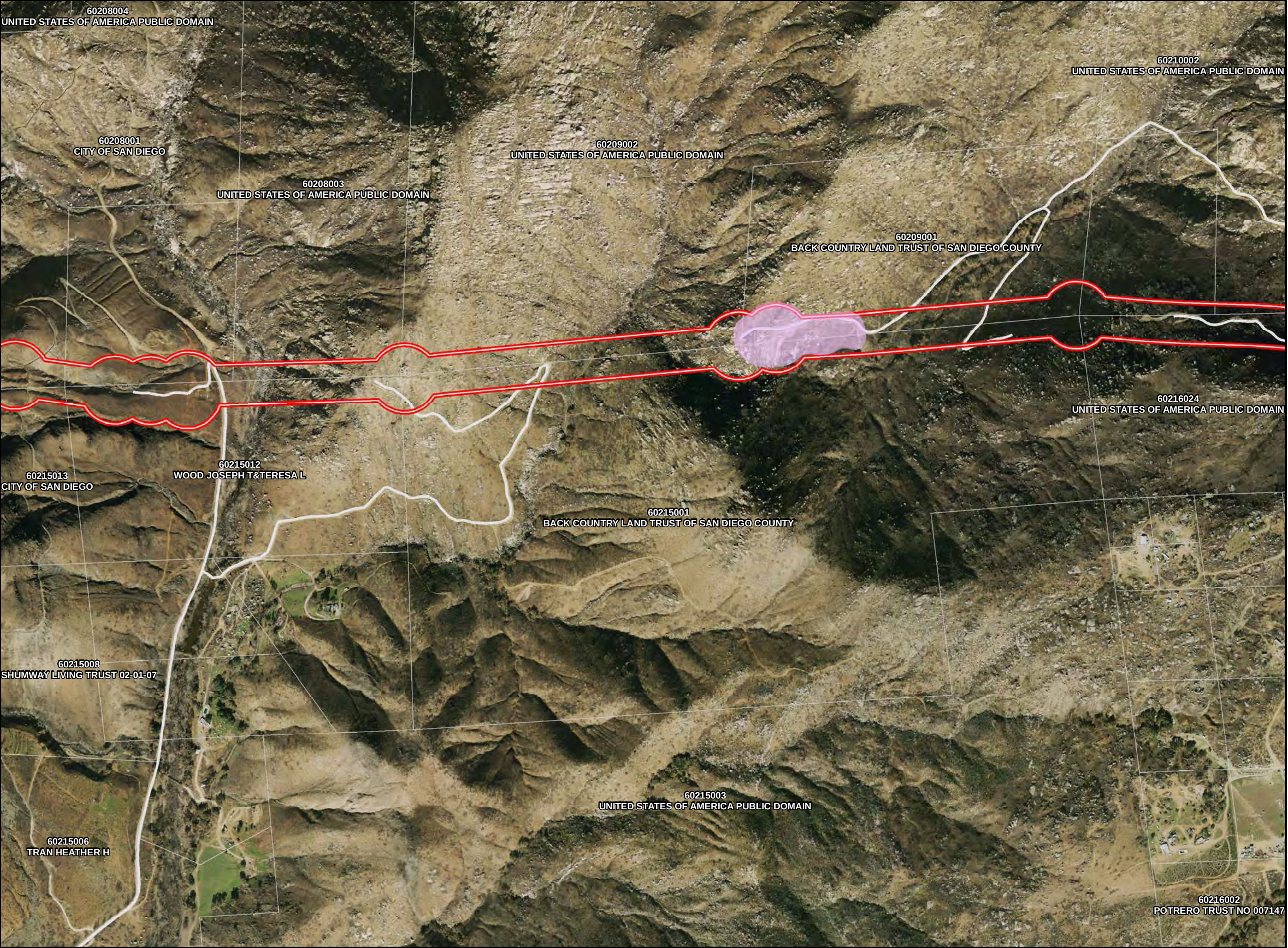
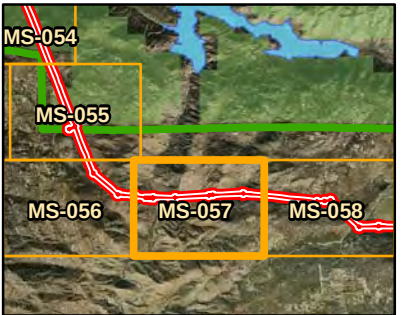


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-057

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

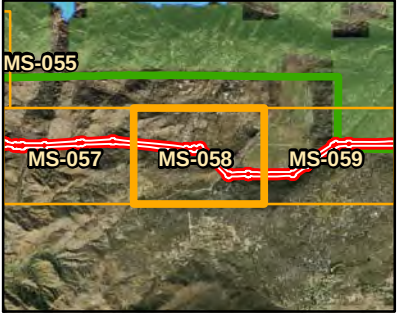
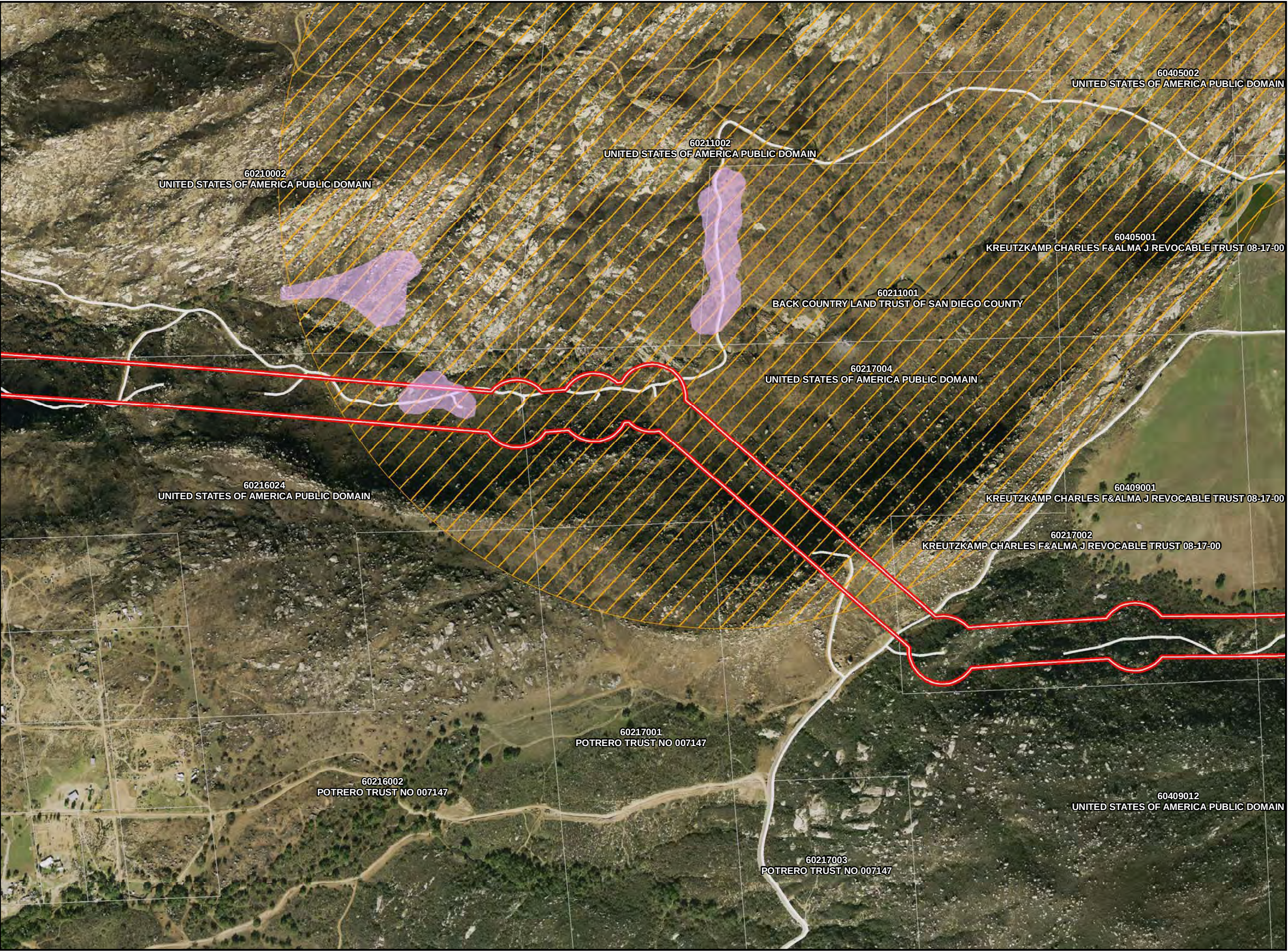


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-058

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

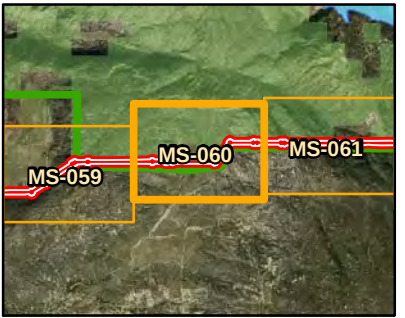
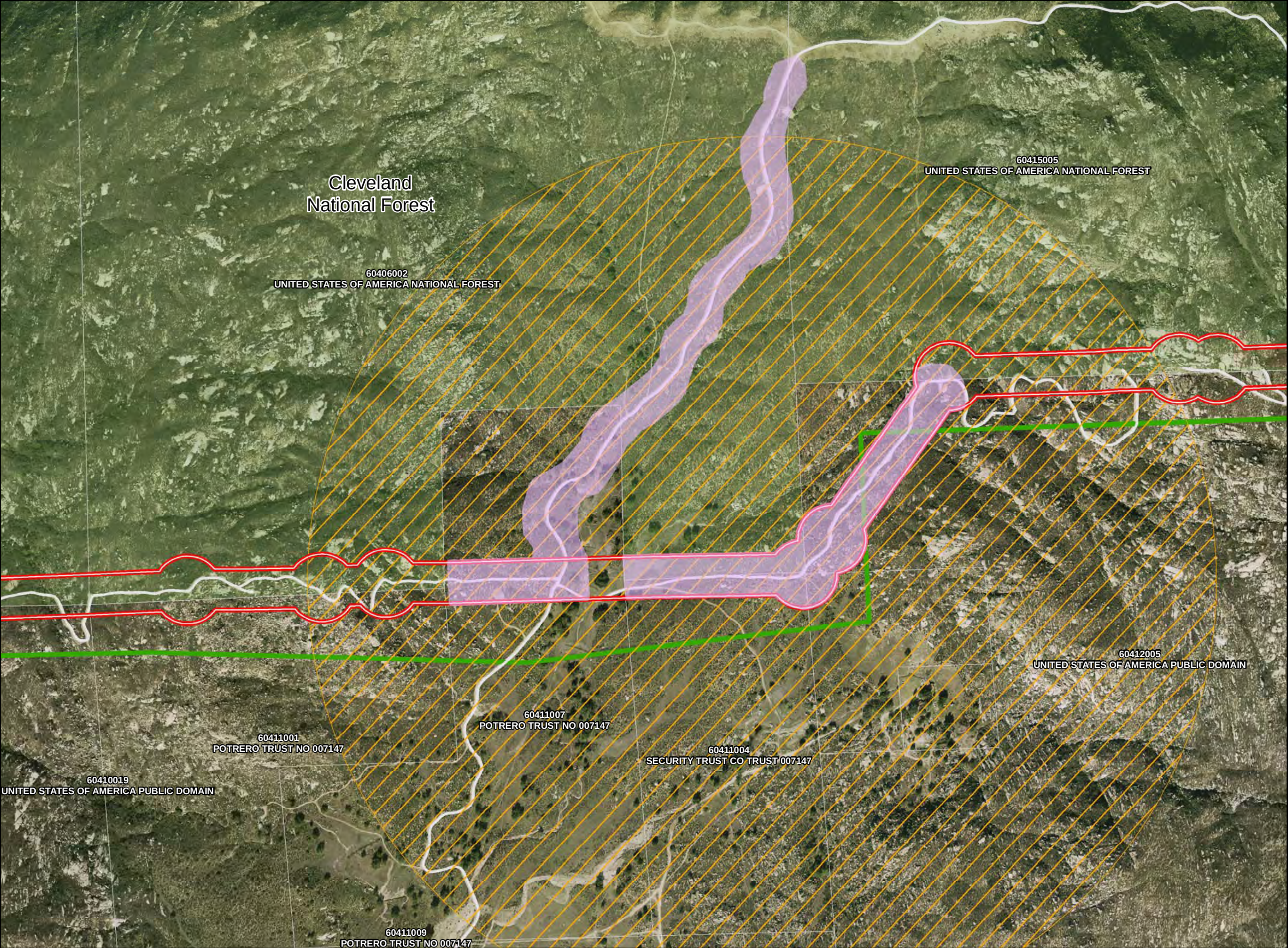


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-060

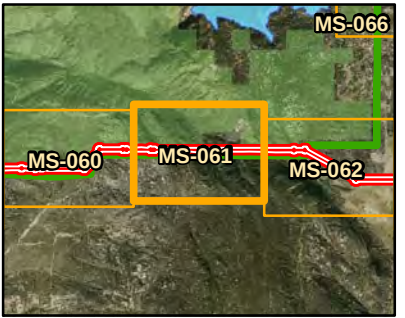
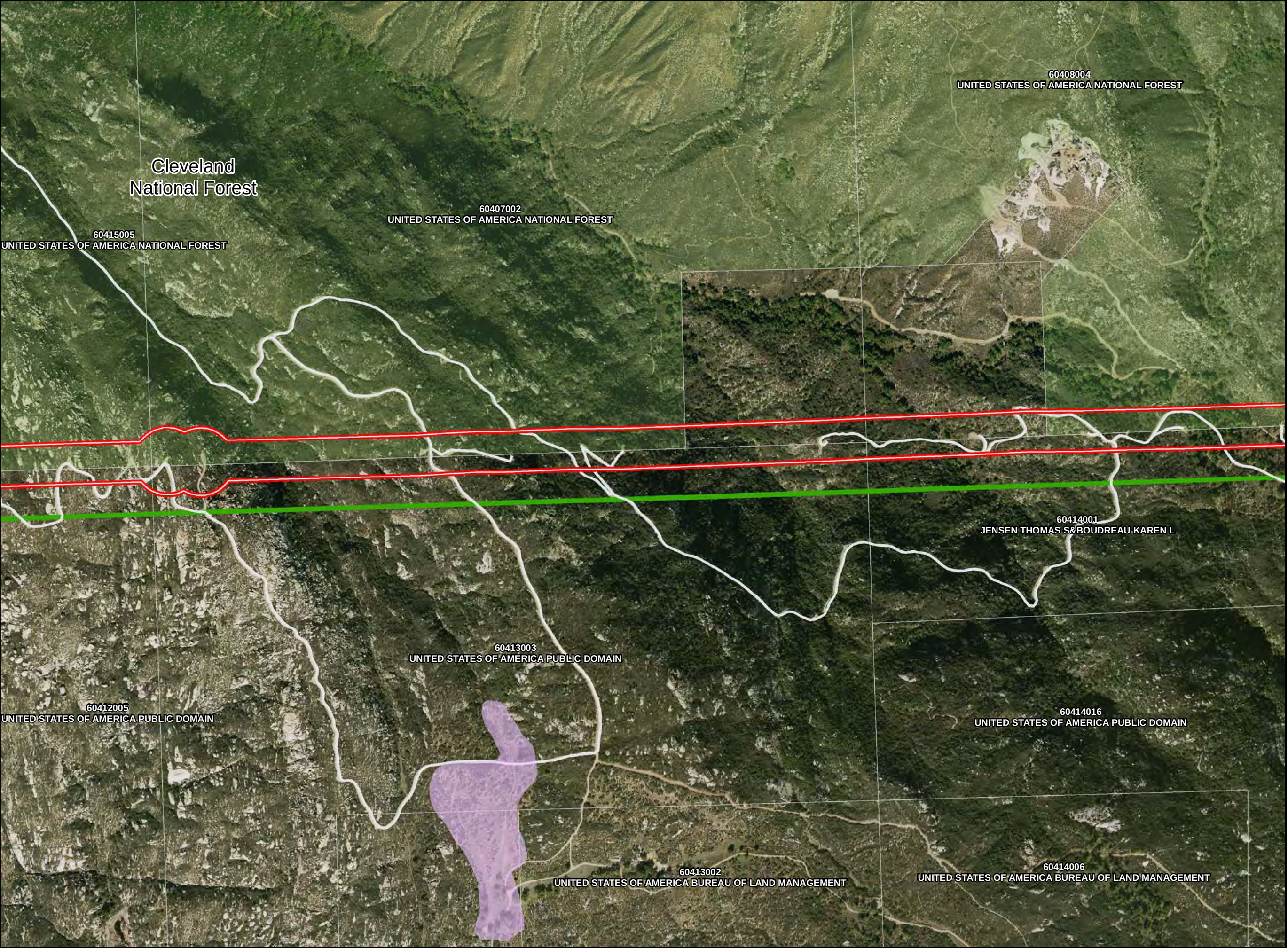
Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant



Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

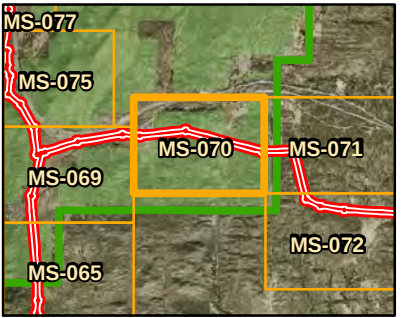


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-070

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

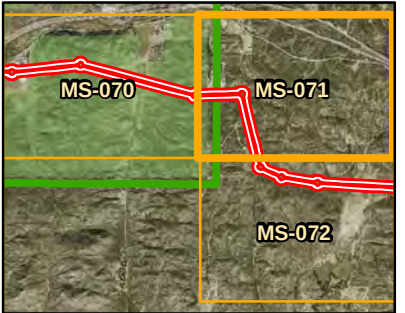


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-071

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

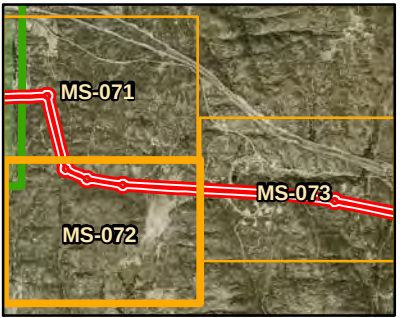


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-072

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

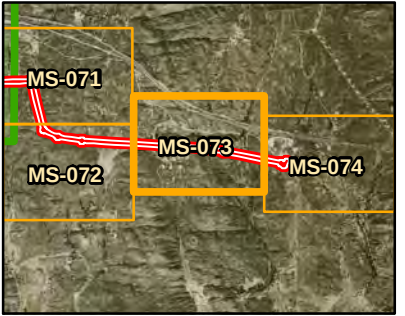
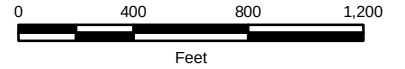


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-073

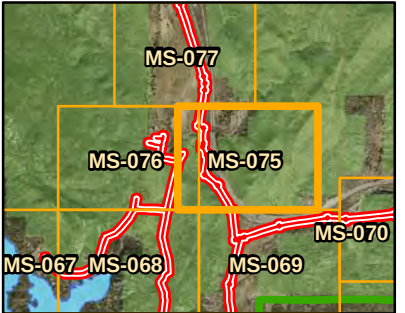
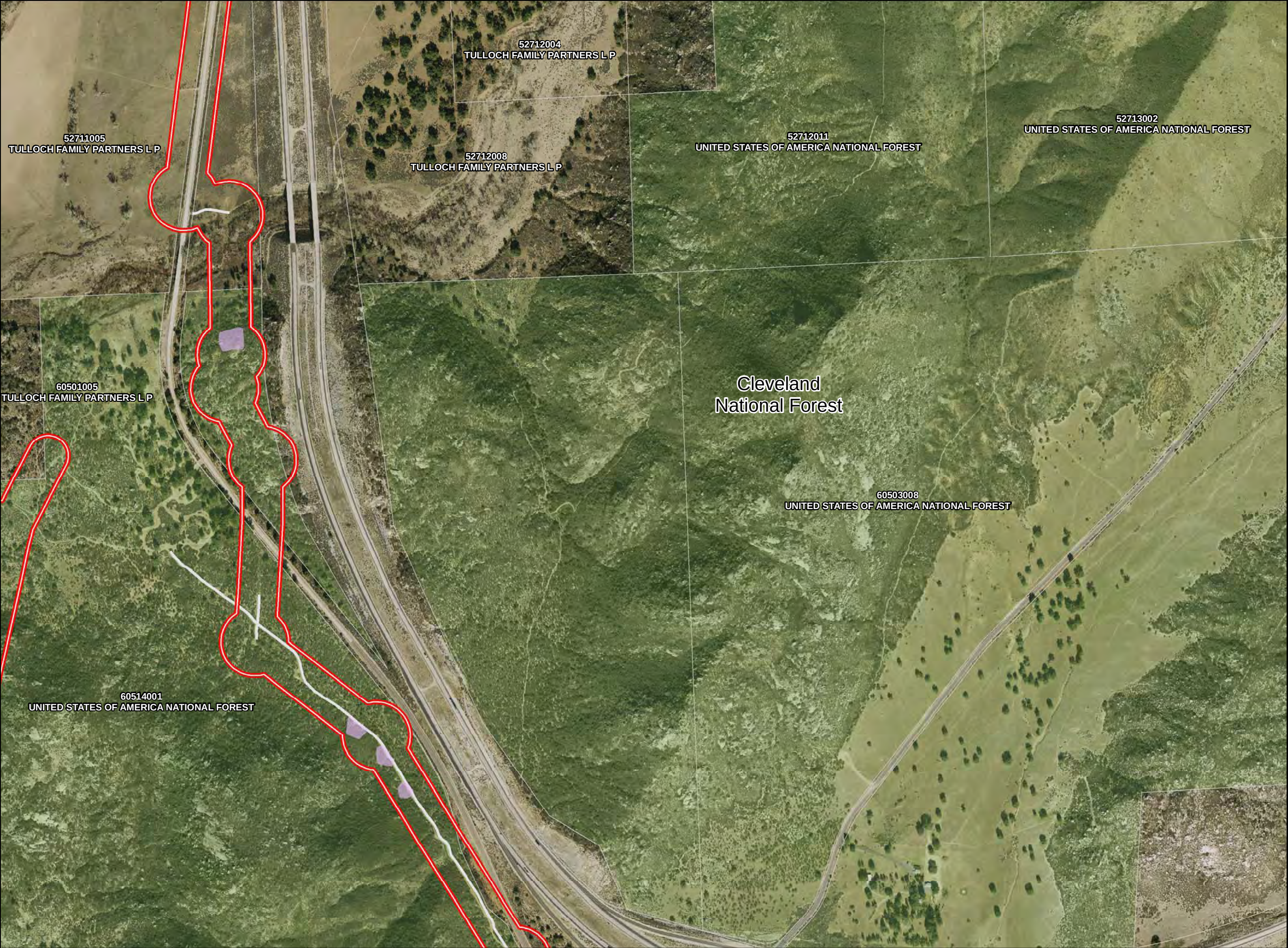
Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant



Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant

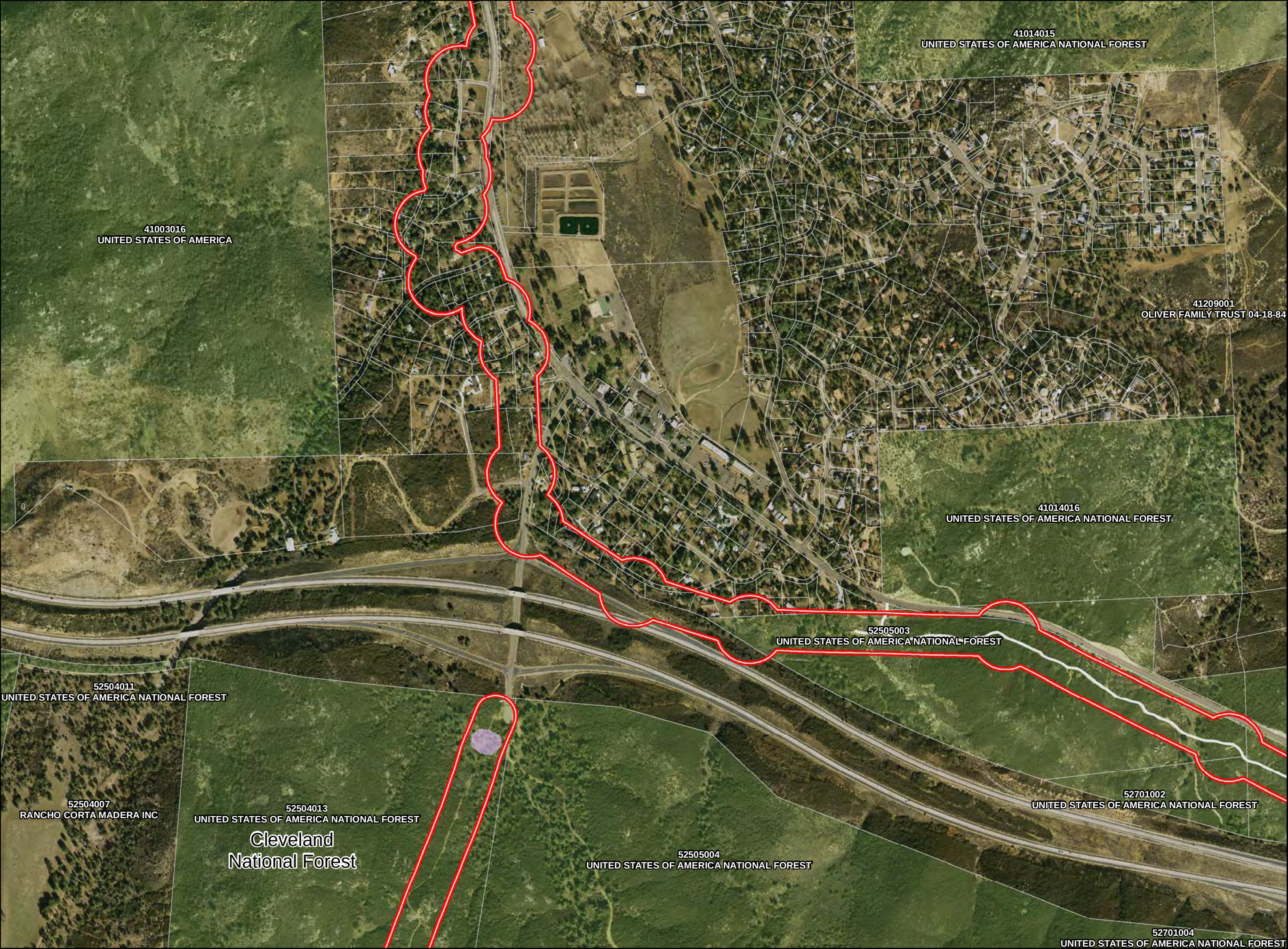
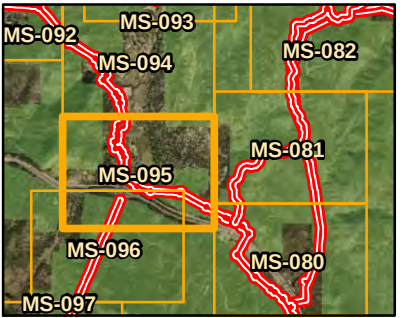


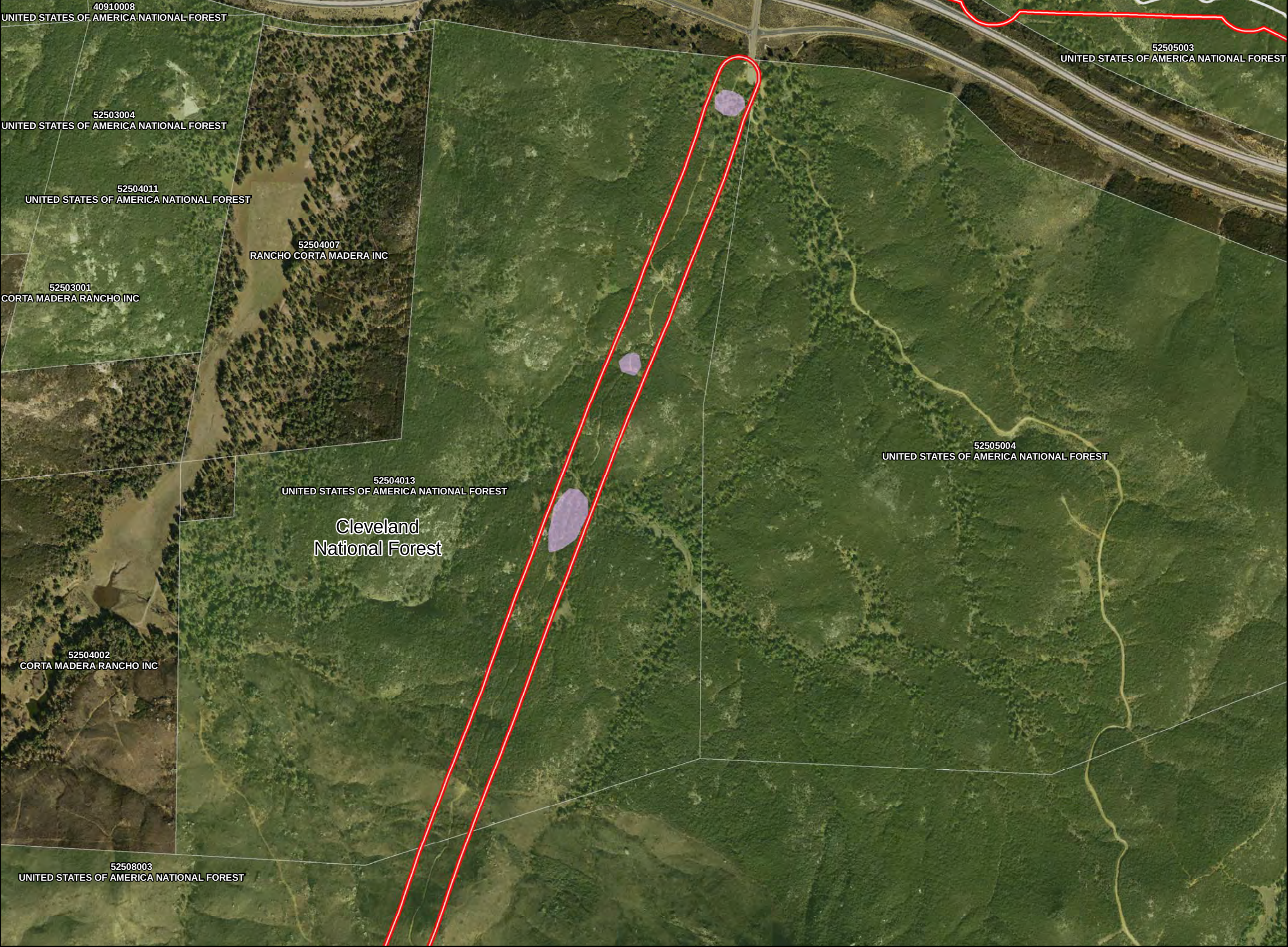
QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-095

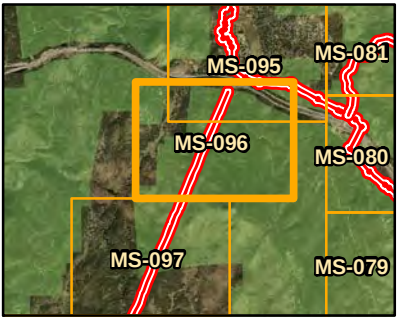
Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant





- Legend**
- Survey Area
 - TCM Access Road
 - USFS Managed Lands
 - Cleveland National Forest Congressional District Boundary
 - Parcels
 - USFWS Occupied Habitat
 - QCB Host Plant

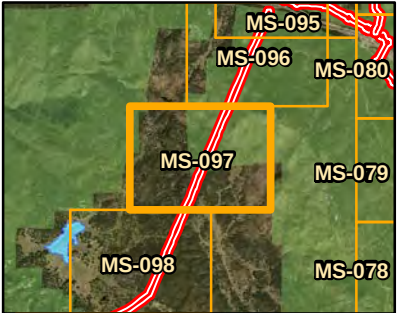
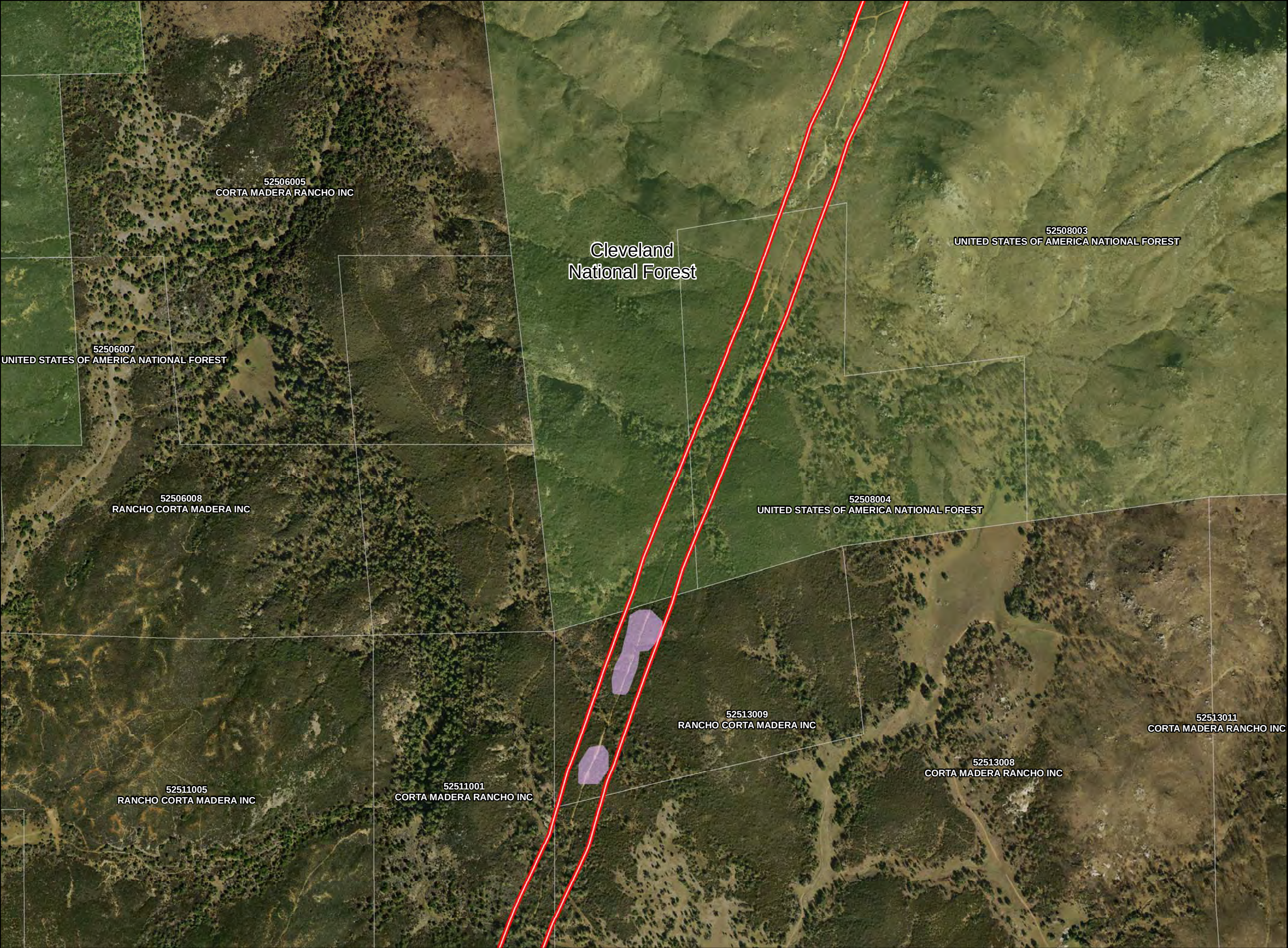


QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-097

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
-  Cleveland National Forest
Congressional District Boundary
-  Parcels
-  USFWS Occupied Habitat
-  QCB Host Plant





APPENDIX F – QCB GENERAL FORMS

Quino Checkerspot General Form

Adult Survey

Location CNF Survey Segment Maps 001-003
 Surveyor W. J. S. / McGough / Green Date 8 Apr 10 Survey Week Number 1
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start <u>0940</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>1-6</u>	<u>72</u>
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop <u>1330</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>0-3</u>	<u>69</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	<u>3</u>		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>2</u>	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	<u>1</u>	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	<u>1</u>	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	<u>6</u>		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Vanessa sp.</i>	<u>2</u>	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>blue</i>	<u>2</u>	
Lycaenidae (Hairstreaks)			<i>Erynnis</i>	<u>2</u>	
<i>Atlides halesus</i> (Great Purple Hairstreak)			<i>Orangetip</i>	<u>2</u>	
<i>Incisalia augustinus</i> (Western Brown Elf)			<i>white</i>	<u>3</u>	
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	<u>9</u>				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)	<u>2</u>				
<i>Icaricia acmon</i> (Acmon Blue)	<u>2</u>				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor Green/Mayers/McBratton Segment # Maps, 1, 2, 3 Date: 8 Apr 10

Comments:

Extensive patches of *Plantago* between 118031 and 118032.
Also, *Plantago* along dirt road near 118051.

GPSed RCSP and Orange-throated Whiptail

Plant Communities and Habitat Information:

Annual grassland, oak woodlands, "Deerweed Scrub"

Host Plants Present: *Plantago erecta*

Nectar Plants Present: *Mimulus - Camissonia*, *Erodium*, *Phacelia*, *Lasthenia*

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Pgs MS-004 to MS-005Survey Segment Pole 118073 west to 118051Surveyor John GreenDate 4-15-10Survey Week Number 1

Survey Partner(s) _____

Total Acres: _____

Portion Surveyed: _____

Elevation: Max _____

Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 1045	high/low	clear	patchy	overcast	drizzle	shower	2.2 avg, 8.4 max	71°
1400	"	clear	patchy	overcast	drizzle	shower	1.5 6.7	67.1
1535	hazy	clear	patchy	overcast	drizzle	shower	0.7 2.0	70.8
stop 1630	diffuse	clear	patchy	overcast	drizzle	shower	3.3 7.2	63.4
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

urvey
complete
get
walk
back

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources, Prunella.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)	1	
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	1	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	3		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	3	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis properthus</i> (Properthus Duskywing)			<i>White sp.</i>	3	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Duskywing - sp.</i>	15	
Lycaenidae (Hairstreaks)			<i>Orangetip - sp.</i>	7	
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia angustinus</i> (Western Brown Elfin)	2				
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	2				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)	10				
<i>Icarcia acmon</i> (Acmon Blue)	2				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor

J. Green

Segment #

Maps 4+5

Date:

4-15-10

Comments: Birds in field notes. RCSP & SSHA mapped

Plant Communities and Habitat Information:

~Grassland, Oak woodland, CSS, chaparral (burned)

Host Plants Present: Owl's Clover, Plantago Mapped

Nectar Plants Present: many, including Lupines, Phacelias, Goldfields, Cryptanthus, Plagiobothrys, Lotus, & many more in field notes

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location MAPS 5-7 Survey Segment _____
 Surveyor C. MCGAUGH Date 4-15-10 Survey Week Number 1
 Survey Partner(s) (J.F. GREEN)
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>1100</u>	<u>HIGH THIN</u>	clear	patchy	overcast	drizzle	shower		<u>70°F</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower	<u>wind's cut</u>	
		clear	patchy	overcast	drizzle	shower	<u>to 10 mph</u>	
		clear	patchy	overcast	drizzle	shower	<u>avg ~ 2 mph</u>	
		clear	patchy	overcast	drizzle	shower		
Stop <u>1600</u>	<u>100%</u>	clear	patchy	<u>overcast</u>	drizzle	shower		<u>68°F</u>

Habitat onsite (circle as applicable): hilltops ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	<u>1</u>	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	<u>1</u>	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	<u>1</u>		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>1</u>	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	<u>4</u>	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Steepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	<u>3</u>		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)			<u>blue sp ("Southern blue")</u>	<u>3</u>	
Lycaenidae (Hairstreaks)			<u>white sp</u>	<u>1</u>	
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopteryx lydamus</i> (Southern Blue)	<u>1</u>				
<i>Icarcia acmon</i> (Acmon Blue)	<u>1</u>				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor MCGAUGH Segment # MAPS S-7 Date: 4-15-10

Comments:

surveyed Acres W → E

084, 085, good habitat, to 086 very good habitat, CSS

exclude 087; 101-106?, 095

unusual habitat 088, 099

↓
plantago
oak clover
clay soils
cryptogamic soils,
erosion, old roads in CSS

Plant Communities and Habitat Information:

coastal sage scrub
chaparral
grassland

Host Plants Present:

abundant Plantago - 085 → -086, scattered Oak Clover

Nectar Plants Present:

abundant; Lathyrus, Castilleja

☐ Quino Sighting

0

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location MAP 12, 9, 10, small portion of 8 Survey Segment _____
 Surveyor J.F. GREEN, C. MCGOUGH Date 4-14-10 Survey Week Number 1
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 1105	high thin	clear	patchy	overcast	drizzle	shower	1.2 Avg 2.6 max	62°
(MAP 12)		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
12:30	"	clear	patchy	overcast	drizzle	shower		
(MAP 8, 9, 10)	"	clear	patchy	overcast	drizzle	shower	2.5 Avg 4.1 max	64.10
1700 (MAP 9 E)	"	clear	patchy	overcast	drizzle	shower	1.5 Avg 6.2 max	63.7°
Stop 1700 (MAP 9 E)	"	clear	patchy	overcast	drizzle	shower		59.8°

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)	1		<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	2	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	8+	1	Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)	1+	1
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	4+	3
<i>Danaus gilippus</i> (Queen)	1		<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	1	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)	1+	2
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	4	2	<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)	25		OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)	1		Tortoiseshell?	2	
<i>Ochlodes agricola</i> (Rural Skipper)			Ch. Skipper - sp.	1	
Lycaenidae (Hairstreaks)			blue sp.	1	
<i>Atlides halesus</i> (Great Purple Hairstreak)			<i>Erynnis</i> sp. <i>A. FRANKS/PERLWIS</i>	3	
<i>Incisalia augustinus</i> (Western Brown Elf)	2		California Dogface	1	
<i>Callophrys perplexa</i> (Perplexing Hairstreak)			Duskywing sp.	3	
<i>Strymon melinus</i> (Gray Hairstreak)			Oranget p. - sp.	1	
<i>Glaucopsyche lygdamus</i> (Southern Blue)	1				
<i>Icarcia acmon</i> (Acmon Blue)	1				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor GREEN/MCGAUGH

Segment # Maps 8, 9, 10, + 12

Date: 4-14-10

Comments: SURVEYED SUBSTATION, LINE TO HWY 79 (MAP 12)
SURVEYED FIRE RD EAST WEST OF L. FRANKLIN (MAPS 8, 9, 10) MCGAUGH RD SOUTH
GREEN NORTH
ISOLATED POLE 118181; SURVEY AREA MAY BE EXTENDED TO 118187 -- PRESENCE
OF HABITAT - FOODPLANT, NECTAR, OUTCROPS

Plant Communities and Habitat Information:

CUMARUL, OAK WOODLAND, GRASSLAND/COW HABITAT

Host Plants Present: CACTILIA EXSERTA (COWS CLOVER)

Nectar Plants Present: MANY, ABUNDANT -- ECLIPSELAS (LASTHEDIA) LUPINES,

☐ Quino Sighting NOT YET!

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location ms 28, 29 Survey Segment _____
 Surveyor David King, Nicole Sherry Date 4/14/10 Survey Week Number 1
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

372115
mud
3.5C-106

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 1109 ^(rising)	5	clear patchy overcast drizzle shower	1-4	56/53 air
1134	20% thin	clear patchy overcast drizzle shower	0-4	65/61 air
1240 ^{at creek}	20%	clear patchy overcast drizzle shower	0 mph	76/74 air
1340 ^{pos area}	30% thin	clear patchy overcast drizzle shower	2-6	53/68
1409 ^{mud 30 ft}	25% thin	clear patchy overcast drizzle shower	1-4	69/69
1600 ^{new 102}	80% thin	clear patchy overcast drizzle shower	4-12 ^{avg}	68/57
Stop		clear patchy overcast drizzle shower		

Habitat onsite (circle as applicable): killtops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marira</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)	1		<i>Papilio rutulus</i> (Western Tiger Swallowtail)	1	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)	11				
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	11/11				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)	11/11				
<i>Icarcia acmon</i> (Acmon Blue)	11				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor King / Kimball

Segment # MS 2028+29 Date: 4/14/10

Comments:

to mt BGGN2 mid left of track RD
SDHL at Pole just E. of track for map

hatched
MT Turkey
Mach
Cagm ① SDHL @ (year 1) 372130
BRTI
PSFL = Surrounded from "1000 2085" area due to boulder creek seen Meekel?
SP 80% Surrounded w/ net on other side - started too cold, but
PF mole all was charitably (owned) under proper conditions
Cal gr. 99mm = (checked) out Long 20m area - lots of keep out signs &
Des cotton tail compound fence, skipped for specific permission - small distance
Hawer ribbon line passes through corner
mountain lion 1450 - Nicole Walker like itself, (separate sheet) I'm checked access RDS, but
south from file 372115
SB Lizard - checked to north, compound to slant & active to cross beyond
wreath
Cora file 372114.

Plant Communities and Habitat Information:

near start of file" Chomse chaparral 70% cover w/ (ceanothus & scrub oaks)

Host Plants Present:

Cathula exerta - only sat. under

Nectar Plants Present:

<i>Ceanothus toment</i>	<i>Eucalyptus cal</i>	<i>Lotes (m. yellow)</i>	<i>C. leucodermis</i>	<i>Lotes forshann</i>	<i>Lotes 5f</i>
<i>Cryptantha spp.</i>	<i>Phacelanthus spp.</i>	<i>Clamadis</i>	<i>Peonay al</i>	<i>Ba C. Sal</i>	<i>Liriodendron sp</i>
<i>Eriodum cic</i>	<i>Hypochaeris sp.</i>	<i>Baby blue eyes</i>	<i>Claytonia purp</i>	<i>Amorpha</i>	<i>Comatula</i>
<i>March micro</i>	<i>Cathula exerta</i>	<i>Campanula. no dots</i>	<i>Lathyrus vestitus</i>		<i>Syrinchia bellina</i>

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Lepidum sp.
Lupinus sp.
Lupinus (red purple)
Rhus diversifolia

Quino Checkerspot General Form

Adult Survey

Location Map 29 Survey Segment _____
 Surveyor NK Date 14-Apr-10 Survey Week Number 1
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>1409</u>	<u>25</u>	clear	<u>patchy</u>	overcast	drizzle	shower	<u>1-4</u>	<u>69 (Air 69)</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop <u>200</u>	<u>80 (4 min)</u>	clear	<u>patchy</u>	<u>overcast</u>	drizzle	shower	<u>4-12</u>	<u>56 (Air 56)</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	<u>1/1</u>				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor NK

Segment # Map 29

Date: 14-Apr-10

Comments: Dich. caps. base on left side of Caput just below 5th rib - not many nodules, source of animal, good.
Tick Culture!

Plant Communities and Habitat Information: *Charr. Cree. Oak Woodland*

Host Plants Present:

Nectar Plants Present: *Carthagen*, *Con. Juncos*, *Yucca*, *Wild Poa*, *Er. cir.*, *Clematis*,
Na. m. m. m., *Sal. columb.*

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.

2.

3.

4.

5.

6.

7.

8.

9

10.

11

12

Quino Checkerspot General Form

Adult Survey

Location Mar 30 Survey Segment 7
 Surveyor JK Date 16-Apr-12 Survey Week Number 1
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>1037</u>	<u>0</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>0-3</u>	<u>60</u>
<u>2:30</u>		clear	patchy	overcast	drizzle	shower	<u>2-5</u>	<u>66</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop <u>3:55</u>		clear	patchy	overcast	drizzle	shower	<u>4-5</u>	<u>60</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marira</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche hygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor NK

Segment # Map 30

Date: 16-Apr-10

Comments:

Plant Communities and Habitat Information:

Host Plants Present:

Nectar Plants Present:

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Pages 30 & 34 Survey Segment _____
 Surveyor John Green Date 16 Apr 2010 Survey Week Number 1
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 1040	trace	clear	patchy	overcast	drizzle	shower	0-2	60°
1535	100%	clear	patchy	overcast	drizzle	shower	4-5	72°
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydras editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydras chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	2		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	2	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Duskywing</i> #1111	3	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Blue</i> #11	2	
Lycaenidae (Hairstreaks)			<i>Sulphur</i>	1	
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	16				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)	14				
<i>Icarcia acmon</i> (Acmon Blue)	13				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor John Green

Segment # Maps 30+34

Date: 16 Apr 2010

Comments: NOFL SPTO BCSP WREN ACK WFA MOW BGR ATTE LFGO TOWA HAWK
 EWE MOWU NOFL BUCO JESU BSCN JAIN WEEB CORA TUVU DEBL NALA VISTA SSIA LAZB
 MACH BTM RWR PLTI CH CAQU CAN SAGE GRRO BT_{7/20/10} HVA HENA

W. L. L. CoGS, Dec 1, 2009, 10:00 AM

Plant Communities and Habitat Information: Shrubland, oak woodland
(S. mixed)

Host Plants Present: owl's Clover, one small patch, capped on Pg. 34

Nectar Plants Present: Sage, Erad. X2, Miner's Lettuce, Lotus, Cornus, Ceanothus, Cypripedium, Platanus, Cornus, Yucca, Mtn. Mahoe, White Birch, Evening Primrose, Wild Cucumber, Sagittaria, Pectocarya, Al. Penny
tree, Lupine, Phacelia, Piddler

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

eckerspot General Form

Adult Survey

030
M. Bushy, N. Kimball

Survey Segment MAPS 031-032

Survey Partner(s)

Total Acres: Portion Surveyed: Elevation: Max Min

Time (24 hr)	% Cloud	Sk	Wind (range)	Temp (F)
Start 1030	5% haze	(clear) patchy overcast drizzle shower	2-4	64
1300	85% haze	clear patchy overcast drizzle shower	2-5 (8)	76
1530	100% haze	clear patchy overcast drizzle shower	3-5	73
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop		clear patchy overcast drizzle shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources. only on rds

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydras editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydras chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	2	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	1		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	2	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	1		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)	2				
<i>Ochlodes agricola</i> (Rural Skipper)			Blue sp 11 nil	2	2
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	1	2			
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)	2				
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor M Busby W Kimball Segment # Map⁰³⁰ 031-032 Date: 4/15/10

Comments:

TOWA	CAT	Seems early for surveys because very few annuals blooming and very few butterflies observed despite suitable weather conditions.
BCSP	mule deer	
whip	ANHU	
WREN	CATH	
bobcat		
mt lion		
coyote		
Phrynosoma		

Plant Communities and Habitat Information:

Burned chaparral w/ very few flowering plants. Stopped surveys at alpine habitat

Host Plants Present:

None observed

Nectar Plants Present:

Chrysothamnus sp.	Eri can	Lomatium
Erodium sic	Ceo sp.	Arctostaphylos
Yucca whipplei	Sal sp	woody blue...
Hypo.	Ceo tom	

☐ Quino Sighting

N/A

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Salvia
pinnatifida

Quino Checkerspot General Form

Adult Survey

Location Map 33 Survey Segment _____
 Surveyor NR + JS Date 10-Apr-15 Survey Week Number 1
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>1045</u>	<u>10</u>	clear	<u>patchy</u>	overcast	drizzle	shower	<u>2-5 w/gust 9</u>	<u>65 (Air 61)</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop <u>1200</u>	<u>15</u>	clear	<u>patchy</u>	overcast	drizzle	shower	<u>Same</u>	<u>Same</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	11		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Hedgerow Hairstreak</i>	1	
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)	1				
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	1				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glauropsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor NK+PK

Segment # Map 33

Date: 10-Apr-19

Comments: Map 33 is along Lookout Rd, which is currently being restored to a
continuous forest & lined w/ closed canopy chap

Plant Communities and Habitat Information: continuous forest (restoration area w/ native
grasses w/ resprouting & planted ceano.)

Host Plants Present:

Flowering Nectar Plants Present: Baby Blue Eyes, lotus

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location MS 055 Survey Segment Poles 371527-371517
 Surveyor Daniel King Date 4/19/10 Survey Week Number 1
 Survey Partner(s) Michelle King
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 1150	6	clear patchy overcast drizzle shower	1-5	78.6 / 72.0
1320	0	clear patchy overcast drizzle shower	2-7	72.6 / 74.0
1412	0	clear patchy overcast drizzle shower	4-8	71.9 / 73.0
1530	0	clear patchy overcast drizzle shower	0-8	70.9 / 74.0
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop		clear patchy overcast drizzle shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	6/10/5	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycapidae (Hairstreaks)					
<i>Atides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icaricia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Quino Checkerspot General Form

Adult Survey

Location 744130 + 30 Survey Segment _____
 Surveyor NK Date 12-Apr-0 Survey Week Number 1
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>1522</u>	<u>1</u>	clear	<u>patchy</u>	overcast	drizzle	shower	<u>2-5</u>	<u>79</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop <u>1548</u>	<u>10</u>	clear	<u>patchy</u>	overcast	drizzle	shower	<u>0-6</u>	<u>76</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marira</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycenidae (Hairstreaks)					
<i>Atides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor AK

Segment # Map 25

Date: 19-Apr-0

Comments: Sent to Nuffield for 1952. Found in 1st 2-way test. 39 + 39 then sent to Nuffield + 1 more sent 39 + 2 more at end of 1st 1952.

Plant Communities and Habitat Information: *open, sunny, grassy area with some shrubs*
open, sunny, grassy area

Host Plants Present:

[illegible]

☐ Quino Sighting	Date:	GPS Location:

Date: _____ GPS Location: _____

GPS Location: _____

Photographs Taken: _____

2.

3.

4.

5.

6.

7.

8.

9. _____

10.

11.

12. _____

Quino Checkerspot General Form

Adult Survey

Location NEAR VIEJAS / CNF Survey Segment 037-038
 Surveyor M. BUSBY Date 4/20/10 Survey Week Number 1
 Survey Partner(s) N. KIMBALL
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 1000	80 haze	clear	patchy	overcast	drizzle	shower	2-4	64
1300	100 haze	clear	patchy	overcast	drizzle	shower	2-5 (11)	86
1420	65	clear	patchy	overcast	drizzle	shower	5-8 (9)	80
1440	50	clear	patchy	overcast	drizzle	shower	2-5	75
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop 1600	50	clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemis mormo</i> (Mormon Metalmark) 1111 13		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady) 11	2		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip) 1111 14 1		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur) 111 3		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper) 11	2		Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing) 1111 111 9	9		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			OT SP 1		1
<i>Ochlodes agricola</i> (Rural Skipper)			Indra Swallowtail 1		1
Lycaenidae (Hairstreaks)			Orange Skipperling 11		2
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf) 111 3	3				
<i>Callophrys perplexa</i> (Perplexing Hairstreak) 1111 111 9	9				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue) 111 5	5				
<i>Icarcia acmon</i> (Acmon Blue) 1111 1 6	6				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor Busby/KimballSegment # Maps 37+38 Date: 20-Apr-10

Comments:

TLVU Uta stan
 NOMO West fen liz
 CTO whip
 SPTO coyote
 AMCR rabbit
 SOS P dog
 NOHA gran spin liz
 COHU mtn lion
 CAQU bobcat
 CAKI
 LEGO
 RTHA
 WSJA

call // Amber Gelwicks //
 before 619.672.1993
 survey

surveyed alignment but
 sporadic near west end
 in map 037 because
 many residential dwellings.
 Met Amber @ east end
 of 038) and she recommended
 we be careful w/ water
 locals b/c "will shoot
 before asking what you
 are doing!" so we were
 not comfortable surveying
 in or immediately adj
 to people's yards

Plant Communities and Habitat Information:

several patches of oaks down (as mapped by hand).
 Plantago area sparse but most suitable area in this
 section. Plantago all very fresh
 and good butterfly activity.

Plantago erecta w/ snr db
 map 038, mapped by hand
 scattered, ~~1000s~~ ~~pass~~ 1000s
 Very fresh, not drying

Host Plants Present:

Cass ex

- map 038 - small patches
- w/ 10-15 plants ea.
- recorded on map by hand
- map 038 very eastern end? dozens
- large patch cass ex @ hilltop mapped by hand

Gut sar Cam cod
 Sol far fuzzy leaf, tall flower
 Sra bic meli yellow
 Odora tall strawberry?
 Horehound Geo sp.
 Lot sp. Geo leuc

Nectar Plants Present:

Hypo EGid cass Lup bic Allum Helianthus Dic cap
 Erod sic Culi mac Chrys thistle sp. Eri con Pecto
 Eri fac Yuc whip Woody blue African daisy Rhus ova Cast (Indian)
 mustard chap pea sal coc Sis bel Shiny lupine Heli (rock rose)

☐ Quino Sighting

N/A

Date:

GPS Location:

Photographs Taken:

1.
4.
7.
10.

N/A

2.
5.
8.
11.

3.
6.
9.
12.

Quino Checkerspot General Form

Adult Survey

Location MS 90-41 Survey Segment _____
 Surveyor David King / Steve Myers Date 9/20/2010 Survey Week Number 1
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: 272963 ~~273030~~ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 1006	10	(clear) patchy overcast drizzle shower	2-4	62.8 / 61.9 air
1150	Haze	(clear) patchy overcast drizzle shower	2-6	67.9 / 72 air
1240	high	(clear) patchy overcast drizzle shower	3-6	65.8 / 72 air
1420	35	clear patchy overcast drizzle shower	2-6 - 2-7	67.8 71 / 70
1550	50%	clear patchy overcast drizzle shower	6-8 mph	68.8 / 61 air
		clear patchy overcast drizzle shower		
Stop		clear patchy overcast drizzle shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marix</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)	14/11		<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metal-mark)	20	
<i>Basiliarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	11/1	
<i>Vanessa annabella</i> (West Coast Lady)	1		<i>Papilio rutulus</i> (Western Tiger Swallowtail)	1	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	11	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis furalis</i> (Funereal Duskywing)	11/11		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS: <i>Dan. cal. n. n. n.</i>		
<i>Erynnis propertius</i> (Propertius Duskywing)	11/1		<i>Erynnis</i> sp.	3	
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	1				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)	11/1				
<i>Icaricia acmon</i> (Acmon Blue)	40				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor KING

Segment # ms 40+41

Date: 4/20/10

Comments:

BCSP Access from freeway shoulder 9m. 1 dirt rd. Gravel/sandstone rock, in heavy
rto walking to mt road clearing to meet glen. Mostly sunny with light breeze

Ahh

Male deer Rhcr (25m in 20) near 273005) often Rhcrs cross on map
Hof " (45m in 20 near 273009)

core

mountain lion

NOFI

PSEI

WBNH
SABH

gpts

cal gr squirrel

DCWA

Br b

TURU

hudson

GCSP

Dun Bog

Gray Fox

G. Spring (Horn)

Bati

AGCN

Shoal pond

N/O m

Bhor

Plant Communities and Habitat Information:

N. of I-8 - mostly 5m chaparral down channels, some channels deeper - both low
(1-2m) & somewhat open / often 60% cover
South, of I-8, roadside some CSS down Eucalyptus fields, - left side for 1/2
and set oaks

Host Plants Present:

Nectar Plants Present:

cryptanthus sp	Camissonia sp (5m yellow)	Yucca whipplei	Didymopanax	African Daisy
Ceanothus leucodermis	Platystrophia sp.	W. blanchetii	Scaevola	Deerhorn rock Rose
Erodium cicutarium	Latis (Scaevola)	Mentha	Synedrella nodiflora	Grayish yellow
Ceanothus (lat.)	Pineapple weed	Solanum paniculatum	Chia	Pectocarya
Claytonia	Limonium sp	Solanum paniculatum	Leptochloa	

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Map 51 - Barrett Lake Survey Segment _____
 Surveyor NMK Date 6-4-10 Survey Week Number 1
 Survey Partner(s) CM & SM
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start <u>1048</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>0-1 mph</u>	<u>Gr + Air = 62</u>
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop <u>1433</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>2-5 mph</u>	<u>Gr = 74 / Air = 73°</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydras editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydras chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	<u>11/1</u>		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis ymeris</i> (Funereal Duskywing)	<u>11/1</u>		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Ad. Sifter</i>	<u>1</u>	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>under wing Moth</i>	<u>1</u>	
Lycaenidae (Hairstreaks)			<i>Sulphur sp.</i>	<u>1</u>	
<i>Atides halesus</i> (Great Purple Hairstreak)			<i>Blue sp.</i>	<u>11</u>	
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	<u>11</u>				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	<u>1</u>				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor NMK

Segment # Map 51

Date: 06 Apr -10

Comments: Cent. exs - plants spread out w/in patch, flowering + pop. may increase as season progresses
P.O. (pole Z571452) - flowering, green stems + pop to 1m tall, cont. along road side + @ bend 1/4 mile E.
E-facing slope w/ 1000's of plants

Plant Communities and Habitat Information: Oak woodland, Grassland, CSS, Chap.

Host Plants Present: Cent. exs, Per.

Flowering

Nectar Plants Present: Emp. citr., Eup. crypt., G. bilob., Camissonia, Phac. par., Dich. cap., Sal. cal., Lotus, L. pino,
Rhus oil., G. cal., S. cal., L. cal., Fried. crass., Mar. mac., J. hirs., K. d. hirs., Clay. perf., W. blue anis.

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

- | | | |
|-------------------------------|--|-----|
| 1. <u>pole Z571452 - Per.</u> | 2. <u>close up of Per. from locale</u> | 3. |
| 4. | 5. | 6. |
| 7. | 8. | 9. |
| 10. | 11. | 12. |

Quino Checkerspot General Form

Adult Survey

Location Map 52 (W end only) 44-41 Survey Segment _____
 Surveyor NK Date 07 Apr -10 Survey Week Number 1
 Survey Partner(s) DK
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start <u>1205</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>1-2</u>	<u>72 (air 78)</u>
<u>1437</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>3-7</u>	<u>78</u>
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop <u>1625</u>		<u>clear</u> patchy overcast drizzle shower	<u>3-5</u>	<u>76 (air 72)</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes maris</i> (Marine Blue)		
<i>Euphydras editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydras chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	<u>1/1</u>		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>1/1</u>	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)	<u>1</u>	
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	<u>1/1</u>		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)	<u>1</u>		OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	<u>1/1</u>				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	<u>1</u>				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor UK, DK

Segment #

Map 52, 44Date: 08-Apr-10

Comments: lg patches of Lar. rub. @ W-end of Map 52; granitic soils w/ lg spruce of Cast. ex. & nectar sources - ended @ 273729 - 273721

Plant Communities and Habitat Information: Chap, Riparian, Coast Live Oak Riparian

Host Plants Present: Cast. ex., Cast. ex.

Flowering Nectar Plants Present: Lar. cal., Anemone, Gilia, Lupine, Plagio., Lup. bicolor, Phacelia, Er. vic., Tidy, tips, Penstemon, Chamisa, Kerkella, Phac. par., Crypt., Peony, lot. scap., Whispering Bell, Mirabilis, Rhus ovata, Lupinus frun., Mar. macra, Esch. cal., Indian Paintbrush, Sol. volume, Dich. cap., Caly. macro, Ephedra, Red Maids, Erica copul., Gust. saro.

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location MAP 50 CNP Survey Segment _____
 Surveyor MCGOUGH Date 4-6-10 Survey Week Number 1
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max 2276' Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start <u>1115</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>0-8</u>	<u>60-71</u>
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop <u>1435</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes mariza</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)	<u>3</u>	
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	<u>2</u>	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis fureralis</i> (Funereal Duskywing)	<u>1</u>		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<u>VANESSA SP.</u>	<u>1</u>	
<i>Ochlodes agricola</i> (Rural Skipper)			<u>ERYNNIS SP.</u>	<u>2</u>	
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)	<u>6</u>				
<i>Icaricia acmon</i> (Acmon Blue)	<u>2</u>				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor MCGAUGH

Segment # MAP 50-51

Date: 4-6-10

Comments: South 571432 to 571444 (pole #s) directed by beam valley road

Plant Communities and Habitat Information:

Chaparral - chamise, manzanita, ceonothus buckwheat, leucellia
coastal sage scrub - artemisia, californica
oak woodland

Host Plants Present:

CASTILLEJA, ~~LEUCIS~~ ~~LEUCIS~~

Nectar Plants Present:

MUSTARDS lupine, lotus, cleome, erodium, dickelethyma, Rhus cuneata
~~MALESIA~~, erubescens

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Map 50 Survey Segment _____
 Surveyor Steve Myers Date 6 Apr 10 Survey Week Number 1
 Survey Partner(s) CM, NK
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>1115</u>	<u>0</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>0-8</u>	<u>60°</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop <u>1435</u>	<u>0</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>0-5</u>	

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Erodianthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydras editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydras chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	<u>1</u>	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	<u>1</u>	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)	<u>1</u>	
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>3</u>	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	<u>5</u>	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	<u>1</u>		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)	<u>1</u>		<i>Vanessa</i> sp.	<u>1</u>	
<i>Ochlodes agricola</i> (Rural Skipper)			blue sp.	<u>1</u>	
Lycaenidae (Hairstreaks)			white sp.	<u>1</u>	
<i>Atides halesus</i> (Great Purple Hairstreak)			<i>Erynnis</i> sp.	<u>3</u>	
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	<u>3</u>	<u>X</u>			
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)	<u>6</u>				
<i>Icarcia acmon</i> (Acmon Blue)	<u>2</u>				
<i>Celastrina ladon</i> (Echo Blue)	<u>2</u>	<u>X</u>			

Surveyor Steve MyersSegment # Map 50Date: 06-Apr-10

Comments: Habitat from 571432 south to 571437 primarily Chamise with small open areas frequent along road. *Castilleja exserta* patches sparsely scattered along that section. *Rhamnus crocea* very infrequent.

From 571440 to 1/2 way between 571441 + 571442 mixed chaparral. Much open ground near 571440, with *Castilleja exserta* + *Cordylanthus* frequent.

Plant Communities and Habitat Information:

Chamise and mixed chaparral

Host Plants Present: *Castilleja exserta*, *Cordylanthus rigidus*

Nectar Plants Present: *Dicholostemma capitatum*, *Cryptantha*, *Eriodictyon crassifolium*,
Lasthenia, *Rhus ovata*

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Maps 53+52

Survey Segment _____

Surveyor NKDate 27-Apr-12Survey Week Number 1Survey Partner(s) L. Gorman

Total Acres: _____

Portion Surveyed: _____

Elevation: Max _____

Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start <u>1117</u>	<u>7</u>	<u>clear</u> patchy overcast drizzle shower	<u>1-2</u>	<u>67 (A-71)</u>
<u>1315</u>	<u>50</u>	<u>clear</u> patchy overcast drizzle shower	<u>3-8</u>	<u>71 (A-73)</u>
<u>1401</u>	<u>35</u>	<u>clear</u> patchy overcast drizzle shower	<u>5-8</u>	<u>78 (A-80)</u>
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop <u>1631</u>	<u>30</u>	<u>clear</u> patchy overcast drizzle shower	<u>1-11</u>	<u>70 (A-72)</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes mariza</i> (Marine Blue)		
<i>Euphydras editha</i> quino (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydras chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Evers amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	<u>11/11</u>	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	<u>1</u>	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	<u>17</u>		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>11/11</u>	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	<u>1</u>	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	<u>1</u>	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	<u>1</u>		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<u>Blue sp.</u>	<u>1</u>	
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	<u>1</u>				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)	<u>1</u>				
<i>Icarcia acmon</i> (Acmon Blue)	<u>11/11</u>				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor

Segment #

Date: _____

Date: 3-7-10

Comments:

Left side

Plant Communities and Habitat Information:

Host Plants Present:

Nectar Plants Present:

Date:

GPS Location:

Photographs Taken:

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

Quino Checkerspot General Form

Adult Survey

Location CNF Map 54, 55, 56 Survey Segment _____
 Surveyor S. Myers, C. McGough Date 7 Apr 10 Survey Week Number 1
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 1045	0	clear patchy overcast drizzle shower	2-8	65°
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 1515	0	clear patchy overcast drizzle shower	2-4	78°

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	2	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	3		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)	2	
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	3	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	2	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	4	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis furcralis</i> (Funereal Duskywing)	9		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Erynnis</i>	5	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>white sp</i>	2	
Lycaenidae (Hairstreaks)					
<i>Atides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	11				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)	3				
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor Myers/McGarrah

Segment # Map 54, 57, + 56

Date: 7 Apr 10

Comments:

Plant Communities and Habitat Information:

Recently burned mixed f chamise chaparral.
Rhamnus crocea sparse & widespread.

Host Plants Present: *Plantago erecta*, *Cortilleja exserta*

Nectar Plants Present: *Dicholostemma capitatum*, *Lotus scoparium*, *Erodium*, *Eriophyllum*,
Layia

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Map 58+56 Survey Segment _____
 Surveyor Dan King Date 4/7/2010 Survey Week Number 1
 Survey Partner(s) John Green, Nicole Kennell
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start <u>1137</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>2-8 mph</u>	<u>76</u>
<u>1317</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>2-8</u>	<u>72</u>
<u>1430</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>4 mph</u>	<u>81</u>
<u>1511</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>2-9 mph</u>	<u>78 med</u>
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop		clear patchy overcast drizzle shower		

Habitat onsite (circle as applicable) hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

only a few signs of Quino

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes mariza</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	<u>11</u>	
<i>Vanessa annabella</i> (West Coast Lady)	<u>1</u>		<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	<u>1</u>		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>11</u>	
<i>Danaus gilippus</i> (Queen)	<u>1</u>		<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	<u>1</u>	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<u>Orangetip</u>		
<i>Ochlodes agricola</i> (Rural Skipper)			<u>Dusky in air</u>		
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	<u>11</u>				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)	<u>11</u>				
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor King/Kimball, Green Segment # Map 55+56 Date: 07-Apr-10

Comments:

BCSP Granite spring
 SOSP meki
 Lasp speckled rattlesnake
 CATH HAEFL
 ROWR ACWO
 CATO Domestic dog
 SPTO RTHA
 Lofa
 TOWU WCSP
 Side-bld. 1.22) CAQU
 m. fence (green) Coyote
 AMKE
 Chsp
 LESO
 LOHO
 mink deer
 ANKO
 RCSP

Plant Communities and Habitat Information:

Burned southern mixed chaparral - 40% shrub cover *Ceanothus* spp., *Rh. integrifolia*
chemise, *rocatoke*, *C. rufus* sp.
Butyraria sp., Rock rose

Host Plants Present:

Antennaria confertiflora

Nectar Plants Present:

<i>Phacelia parryi</i>	<i>Solanum</i> sp.	<i>Eschschol.</i> col.	Whisper bell
<i>marah macrocarpa</i>	<i>lotus scopul</i>	<i>Yucca</i> whip	Plus de floss
<i>Erdian</i> leaf	<i>Shadick</i>	<i>Eriophorum</i> corant	smoggy meph.
<i>Ceanothus tomentosa</i>	<i>Compositum</i> sp.	chap pen	Chia
	<i>Purshiana</i> sp. (chub)	Rock lotus	spring balls
		Ground pink	cauliculus stipes
			late <i>Calisegm macra</i>

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.	<i>Helianthus scoparius</i>
4.	5.	6.	Ceanothus <i>scutellaria</i>
7.	8.	9.	<i>Amorpha</i>
10.	11.	12.	<i>Redmaids</i>
			<i>Ceanothus</i> sp.

Arctostaph.
Mimulus sp.
Claytonia
Lomatium sp.
Phacelia cicutaria

Quino Checkerspot General Form

Adult Survey

Location Map 58+56 Survey Segment _____
 Surveyor David King Date 4/7/2010 Survey Week Number 1
 Survey Partner(s) John Green, Nicole Kimball
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start <u>1137</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>2-8 mph</u>	<u>76</u>
<u>1317</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>2-8</u>	<u>72</u>
<u>1430</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>4 mph</u>	<u>81</u>
<u>1511</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>2-4 mph</u>	<u>78 med</u>
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop		clear patchy overcast drizzle shower		

Habitat onsite (circle as applicable) hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castillejo, Cordylanthus, Antirrhinum, nectar sources.

only a few signs of nectar plants

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes maritima</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	<u>1/1</u>	
<i>Vanessa annabella</i> (West Coast Lady)	<u>1</u>		<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	<u>1</u>		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>1/1</u>	
<i>Danaus gilippus</i> (Queen)	<u>1</u>		<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	<u>1</u>	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)	<u>0</u>	
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<u>Orangetip</u>	<u>1/1</u>	
<i>Ochlodes agricola</i> (Rural Skipper)			<u>Duskywing</u>	<u>1/1</u>	
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	<u>1/1</u>				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)	<u>1/1</u>				
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor King/Kimball, Green Segment # Map 55+56 Date: 7-Apr-10

Comments:

BCSP Granite spring
 SSP meki
 Lasp speckled rattlesnake
 CATH H&EL
 FOUR ACWO
 CATO Domestic dog
 SPTO RTHA
 Cafa
 TOWU WCSP
 Side bld. 1.22 CAQU
 m. Pine (7m) Coyote
 Amke
 Chsp
 LESP
 COHO
 mink deer
 Anko
 RCSP

Plant Communities and Habitat Information:

Burnt southern mixed chaparral - 40% shrub cover. *Ceanothus* spp., *Rh. integrifolia*
chamise, *Yucca*, *Croton* sp.
Eutrochium sp., Rock rose

Host Plants Present:

Antennaria confertiflora

Nectar Plants Present:

Flowers: *Solanum* sp., *Eschscholium* cal., Whiskey ball
Phacelia parryi, *Lotus scopulorum*, *Yucca* whip, *Polea* triflora
manzanita microcarpa, *Rhadrick*, *Ericophloeum* corall., *Smilax* latifolia
Erdiana leaf, *Compositum* sp., *chup* pea, *Chia*
Ceanothus tomentosus, *Pentstemon* sp., *Rock cots*, *Ground pink*, *grape* balls
☐ Quino Sighting Date: GPS Location: *Californian* *ma*
Grasshopper *spp.*
Goldfields

Photographs Taken:

1.	2.	3.	<i>Helianthus scoparius</i>
4.	5.	6.	<i>Antennaria</i> <i>scutellaria</i> <i>tuberosa</i>
7.	8.	9.	<i>Amorpha</i>
10.	11.	12.	<i>Redmonds</i> <i>Ceanothus</i> <i>sp.</i>

Arctostaphylos
Mirabilis sp.
Claytonia
Compositum sp.
Phacelia *ciccutaria*

Quino Checkerspot General Form

Adult Survey

Location Map 70 + 69 Survey Segment _____
 Surveyor NK + DK Date 21 Apr 12 Survey Week Number 1
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 1014	0	clear patchy overcast drizzle shower	0-2	71
1145	0	clear patchy overcast drizzle shower	2-4	72
1323	0	clear patchy overcast drizzle shower	7-8 up to 11	80
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 1345	0	clear patchy overcast drizzle shower	2-5	79 (6:00)

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	1	1
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	1		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	1	1
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	1	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	1		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Ophrys</i> sp.	1	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>O. tip</i>	1	
Lycaenidae (Hairstreaks)			<i>Acmon</i> sp.	1	
<i>Atlides halesus</i> (Great Purple Hairstreak)			<i>Acmon</i> sp.	1	
<i>Incisalia augustinus</i> (Western Brown Elfin)			<i>Acmon</i> sp.	1	
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	1		<i>Acmon</i> sp.	1	
<i>Strymon melinus</i> (Gray Hairstreak)			<i>Acmon</i> sp.	1	
<i>Glaucopteryx lygdamus</i> (Southern Blue)	1		<i>Acmon</i> sp.	1	
<i>Icarcia acmon</i> (Acmon Blue)			<i>Acmon</i> sp.	1	
<i>Celastrina ladon</i> (Echo Blue)			<i>Acmon</i> sp.	1	

Surveyor NK & DK

Segment # 11050 of 69

Date: 07-28-10

Comments: Low cut model w/ La Perouse just here to finish

Plant Communities and Habitat Information: Chap. Scrub and Chap. Chaparral

Host Plants Present:

Nectar-Plants Present: *Lonicera, Ceanothus, Malva, Chamaenerion, Eschschol., Oenothera, Phlox, Chrysanthemum, Anemone, Clematis, Verbena, Salix, Columbine, Mimulus, Lupinus, Peony, Malva moschata, Oenothera, etc.*

☐ **Quino Sighting**

Date:

GPS Location:

Photographs Taken:

1.

2.

3.

4.

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6.

7.

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10.

11

12.

Quino Checkerspot General Form

Adult Survey

Location MAPS 74-71 "GOLDEN ACORN" Survey Segment _____
 Surveyor MYERS / MCGAUGH Date 4-16-10 Survey Week Number 1
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: 44236 - 44180-81 Elevation: Max 4100 Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 1050		clear patchy overcast drizzle shower	0-3	60°
CS SITE (0845)		clear patchy overcast drizzle shower		55°
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
1215		clear patchy overcast drizzle shower	2-7	64°
1430		clear patchy overcast drizzle shower	3-9	69°
Stop 1630		clear patchy overcast drizzle shower	3-8	61°

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes mariza</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	46	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	3	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	2		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)	4	
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	3	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	1	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	4		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)	4				
<i>Ochlodes agricola</i> (Rural Skipper)			<i>PERLEY MARGIE</i>	25	
Lycaenidae (Hairstreaks)			<i>COMMON SOOTY WING</i>	2	
<i>Atlides halesus</i> (Great Purple Hairstreak)			<i>ERYNNIS SP</i>	4	
<i>Incisalia augustinus</i> (Western Brown Elf)			<i>white sp</i>	5	
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	9		<i>blue sp</i>	1	
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopteryx lydamus</i> (Southern Blue)	1				
<i>Icarcia acmon</i> (Acmon Blue)	6				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor MYERS/MIGAUGH Segment # MARS 74-76 Date: 4-16-10

Comments:

GNP 0045 55°
start 10:55 600 gusts finish 1630

undetectable locks w/ end of Map 71

Plant Communities and Habitat Information:

chaparral
Great Basin Sagebrush scrub

Host Plants Present:

Corydanthus - few

Nectar Plants Present:

Lactuca lupine
Malacothrix Arabis
Cypripedium Eriogonum

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Maps 77 + 75 Survey Segment Buckman Spr
 Surveyor NK Date 26-Apr-12 Survey Week Number 1
 Survey Partner(s) N.M.
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 1108	7	(clear) patchy overcast drizzle shower	0-1	84 (air - 81)
1244	5	(clear) patchy overcast drizzle shower	1-4	81 (air - 80)
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 1703	15 (haze)	(clear) patchy overcast drizzle shower	0-6	78 (air - 78)

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes mariza</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)	1		<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	11	11
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	11		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	11	11
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	11		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Blue sp.</i>	1	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Pearly Match</i>	1	
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	11				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	many	11			
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor NK & NM Segment # Map 77,75 Date: 26-Apr-10

Comments:

Plant Communities and Habitat Information: Big Sagebrush, Rip., Oak woodland + grassland
Cham. claps

Host Plants Present:

Flowering **Nectar Plants Present:** Les. cal, Senecio, Mistle & Crypt, Gulch, Northern Blue Gums, E. ce, Anisochloa,
Indian P-brush, T. sp, Penstemon, Lup. bic, Plagin, Yul. sch, Peony, Wild Tea, Chama, P., Pink Lotus,
Ser. l. ca, Id. w. sp, Rock rose, Erigeron, H. C. whip, M. sp, Chama, Dich. cap, Bala, Blue Eyed,
P-applewood, Y. m. mar, Senecio, Phac. fol.

☐ Quino Sighting Date: GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Pawna Valley

Survey Segment

Pages 1-4, Substation on 12Surveyor John GreenDate 26 Apr 2019Survey Week Number 2

Survey Partner(s) _____

Total Acres: _____

Portion Surveyed: _____

Elevation: Max _____

Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 0930	5% high thin	clear	patchy	overcast	drizzle	shower	0-1	70.3
1530	<5%	clear	patchy	overcast	drizzle	shower	1-3	73.8
1625	<5%	clear	patchy	overcast	drizzle	shower	1-9	78.2
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)	4		<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	1	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	3		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	4	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	3	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			Duskywing sp.	7	
<i>Ochlodes agricola</i> (Rural Skipper)			Orangetip sp.	7	
Lycaenidae (Hairstreaks)			Blue sp.	9	
<i>Atlides halesus</i> (Great Purple Hairstreak)			Sulphur sp.	8	
<i>Incisalia augustinus</i> (Western Brown Elfin)			Grass Skipper sp.	1	
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	2				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)	3				
<i>Icarcia acmon</i> (Acmon Blue)	11				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor John Green Segment # Maps 1-4 + 12 ^{Substation} Date: 26 Apr 2010

Comments: RCSP, OT Whiptail, Purple Martin
others in field notes

Plant Communities and Habitat Information: Deerweed scrub, Oak Woodland, burned
chaparral

Host Plants Present: Plantago erecta, owl's clover

Nectar Plants Present: Many, including goldfields, lupines, Oxytropis,
Phacelias, etc.

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location MADPS HWY 76Survey Segment MADPS MS-002-004Surveyor M. WILCOXDate 5 MAY 10 Survey Week Number 2

Survey Partner(s) _____

Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky				Wind (range)	Temp (F)
Start 1030	0	clear	patchy	overcast	drizzle	0-2 mph	60°F
1215	0	clear	patchy	overcast	drizzle	1-3 mph	75°F
1500	5	clear	patchy	overcast	drizzle	2-5 mph	84°F
		clear	patchy	overcast	drizzle		
		clear	patchy	overcast	drizzle		
		clear	patchy	overcast	drizzle		
Stop		clear	patchy	overcast	drizzle		

Habitat onsite (circle as applicable): hilltops, fedges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Cestilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Rhodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)	2		<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)	1		<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	1	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)	2	
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<u>CA SISTER</u>	1	
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	1				
<i>Celastrina ladon</i> (Echo Blue)					

MW

Maps 2-4 05 May 10

CAUY. MACRO, ENCEEA FARN, CALO SPLEND,
 NECTAR: LUPINUS SP., MUSTARDS, SM. YELLOW/OR PEA, MELILOTUS
 INDICA, SM. YELLOW COMPOSITES, WOOLY BLUE CURLS,
 BLUE DICKS, ERODIUM CIC, BUSH MALLOW, LOT. SCJP.
 FIG WORT, CAYTONIA, CA POPPY, ROCK PEA, CRYP. SP.,
 MARUB VULG, STICKY MONKEY FLOWER, YUCCA WHIP,
 LUPINUS BICOLORE, LUPINUS (Hairy/stinging)
 CLIMBING SCROPH OR PEA (QUONDA), PLATCEA DISTANS,
 LARZAC HOST PLANTS = PLANTAGO ERECTA, ASTILLEJA EXERTA

BIRDS =	ACWO	WEST	WITU	AMRO	HOWR
	NOFL	WEBL	BHCO	LABU	ATFL
	HOPI	AMCR	PVMA	BCSP	MODO
	EUST	ANHU	NUWO	HOOR	TUVU
	RTHA	SPTO	CAQU	LASP	CATH

HERPS = SCLOD. GCE.
 UTA STANS

MAMMALS: SPERM. BEECH, SYLVILAGUS, DEER (TRACKS), COYOTE (TRACKS/SCAT)

Quino Checkerspot General Form

Adult Survey

Location MAPS HWY 76Survey Segment MAPS MS-002-004Surveyor M. WILCOXDate 5 MAY 10 Survey Week Number 2

Survey Partner(s) _____

Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 1030	0	clear	patchy	overcast	drizzle	shower	0-2mph	60°F
1215	0	clear	patchy	overcast	drizzle	shower	1-3mph	75°F
1500	5	clear	patchy	overcast	drizzle	shower	2-5mph	84°F
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)	??		<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)	??		<i>Papilio rutulus</i> (Western Tiger Swallowtail)	1	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	1	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)	??	
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<u>CA SISTER</u>	1	
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche hydamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	1				
<i>Celastrina ladon</i> (Echo Blue)					

CALY. MACRO, EUCALYPTUS, CALO SPLEND,
 NECTAR: LUPINUS SP., MUSTARDS, SM. YELLOW/OR PEA, MELLILLOTUS
 INDICA, SM. YELLOW COMPOSITES, WOOLY BLUE CURLS,
 BLUE DICKS, ERADIVUM CIC, BUSH MALLOW, LOT. SCIP.
 FIG WORT, CLAYTONIA, CA POPPY, ROCK PEA, ERYD. SP.,
 MARUB VULG., STICKY MONKEY FLOWER, YUCCA WHIP,
 LUPINUS BICOLORE, LUPINUS (Hairy/stinging)
 CLIMBING SCRAPH OR PEA (LAVENDAR), PLATYSCA DISTANS,
 LARVAE HOST PLANTS = PLANTAGO ERECTA, ASTILLEJA ERECTA

BIRDS = ACWO WEST WITU IMRO HOWR
 NOFL WEBL BHCO LABU ATFL
 NOFI AMCR PVMA BCSP MODO
 EUST ANHU NUMO HOOR TUVU
 RTHA SPTD CAQU LASP CATH

HERPS = SCALOP. GCE.
 UTA STANS

MAMMALS: SPERM. BEECH, SYLVILAGUS, DEER (TRACKS), COYOTE (TRACKS
 SCAT)

Quino Checkerspot General Form

Adult Survey

Location Hwy 76, MARS 4-8 TL682 Survey Segment _____
 Surveyor MICHAUGH Date 4-26-10 Survey Week Number 2
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 0950		(clear) patchy overcast drizzle shower	0-3, to 6	72°F
		clear patchy overcast drizzle shower	mostly ↑	
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		high of 84°F
		clear patchy overcast drizzle shower		
Stop 1600		(clear) patchy overcast drizzle shower		74°F

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydras editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydras chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbi</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	1	Yes	Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	3	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	2	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	2	Yes	<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Vanessa</i> sp	2	
Lycaenidae (Hairstreaks)			<i>Erynnis</i> sp	2	
<i>Atalides halesus</i> (Great Purple Hairstreak)			blue sp	6	
<i>Incisalia augustinus</i> (Western Brown Elf)			orangetip sp	2	
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	1		white sp (large)	3	
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)	3				
<i>Icarcia acmon</i> (Acmon Blue)	5				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor MCGAUGH Segment # Hwy 76 Maps 4-8 Date: 4-26-10

Comments:

EDGE
SURVEYED EAST OF PAGE 4

Plant Communities and Habitat Information:

CHAPARRAL, CSS, GRASSLAND, OAK WOODLANDS

Host Plants Present:

PLANTAGO, CASTILLEJA

Nectar Plants Present:

MANY

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location CNF Survey Segment Maps 9-10
 Surveyor Steve Myers Date 4 May 10 Survey Week Number 2
 Survey Partner(s) Chet McGaugh
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 1000	0	clear	patchy	overcast	drizzle	shower	2-4	67°
1155	0	clear	patchy	overcast	drizzle	shower	5-8	74°
1320	0	clear	patchy	overcast	drizzle	shower	3-6	73°
1445	0	clear	patchy	overcast	drizzle	shower	3-8	73°
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)	1		<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	5	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	1	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	6	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	2		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	13	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	3	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mourning Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)	2		<i>Vanessa</i> sp.	3	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Erynnis</i> sp.	3	
Lycaenidae (Hairstreaks)			blue sp.	4	
<i>Atlides halesus</i> (Great Purple Hairstreak)			white sp.	8	
<i>Incisalia augustinus</i> (Western Brown Elf)			Becker's white	1	
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	8				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor Myers / McGaugh Segment # Maps 9-10 Date: 4 May 10

Comments:

Willow Flycatcher Fitz-bewing (mapped)
Coast Horned Lizard
Yellow Warbler
Yellow-breasted Chat

Plant Communities and Habitat Information:

Chaparral, oak woodland, meadows

Host Plants Present:

Castilleja exserta, Plantago erecta
Castilleja abundant (probably millions of plants)

Nectar Plants Present:

Lasthenia, Dichelostema, Cryptantha, Red Wards, Chia
Nectar plants abundant

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location MADS 28-34 Survey Segment _____
 Surveyor McCAUGHY, MYERS Date 5-3-10 Survey Week Number 2
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky				Wind (range)	Temp (F)
Start 1100	0	clear	patchy	overcast	drizzle	1-3	72°
1220	0	clear	patchy	overcast	drizzle	1-4	73°
1310	0	clear	patchy	overcast	drizzle	2-5	73°
1415	0	clear	patchy	overcast	drizzle	3-6	75°
		clear	patchy	overcast	drizzle		
		clear	patchy	overcast	drizzle		
Stop 1600	0	clear	patchy	overcast	drizzle	2-8	74°

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbi</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	1	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	3		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	15	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)	2	
<i>Heliopetes ericetorum</i> (Northern White-Skipper)	1		<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	2		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)	1				
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Vanessa</i> sp	5	
Lycaenidae (Hairstreaks)			<i>Hesperia</i> sp?	1	
<i>Atides halesus</i> (Great Purple Hairstreak)			<i>Blues</i> sp	10	
<i>Incisalia augustinus</i> (Western Brown Elf)			<i>Erynnis</i> sp	2	
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	4		<i>White</i> sp	2	
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)	3				
<i>Icarcia acmon</i> (Acmon Blue)	13				
<i>Celastrina ladon</i> (Echo Blue)	5				

Surveyor MYERS/MIGAUGH

Segment # MAP 28-34

Date: 5-3-10

Comments:

Plant Communities and Habitat Information:

chaparral
oak woodland
willow riparian
small meadows

Host Plants Present: CASTILLEJA (MAPPED)

Nectar Plants Present:

CRYPTANTHUS
BLUE DICKS
ERIGONIA
LEWIS SPP.
YELLOW CAMPSITE SPP

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Cuyamaca Peak Survey Segment Maps 30, 31, 32, 34
 Surveyor Bob Fleckner, Laurie Goldman Date 5/4/16 Survey Week Number 2
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 0840	0%	clear patchy overcast drizzle shower	0-3 mph	71.2°F
0950	0%	clear patchy overcast drizzle shower	3-6 mph	70.4°F
1100	0%	clear patchy overcast drizzle shower	4-8 mph	67.6°F
1220	0%	clear patchy overcast drizzle shower	4-8 mph	76.6°F
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 1310	0%	clear patchy overcast drizzle shower	4-6 mph	80.5°F

Habitat onsite (circle as applicable) hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	1	1
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	4	1
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	1	-	<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>VANESSA SP.</i>	2	-
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Duskywing SP.</i>	1	-
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)	2	-			
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)	1	1			
<i>Icarcia acmon</i> (Acmon Blue)	7	-			
<i>Celastrina ladon</i> (Echo Blue)	14	10			

Surveyor

Rob Flecker/Laurie Gama Segment # 30-32 + 34

Date:

5/4/16

Comments:

Maps 30/31/32: From Boulder Creek Rd past up the West face of Cuyamaca Peak: Presumably Chaparral w/ NO host plants present & very few nectar sources

Map 034: CSEXE + CORRIGI present in CLOW along AR.

Plant Communities and Habitat Information:

Fine flowering Chaparral (Maps 30, 31, 32)
Chaparral / Coast line oak woodland (034)

Host Plants Present:

CSEXE + COR RIG: Both found in Riparian / CLOW Area on Map 034

Nectar Plants Present:

Erdmann sp., Cryptantha sp., Plagiobothrys sp., Chamissoa sp., Quercus sp., HIRING, SALCLE, CEALEN, TRILAN, MIMCLE, SISBEL, NESWAI, CEAGRE, LOTSTR, CASAF, VIOPDA, CEAFOL, DICCAF, PENICEN, SOMAL, GILANG, LUPBIC, SALCOL, LOTSCO, LINPAR, PENSTE

☐ Quino Sighting —

Date:

GPS Location:

Photographs Taken:

4

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Descans O Boulder Creek Rd Survey Segment Maps 30, 34, 35, 36
 Surveyor Laurie Gorman, Nate Date 5-5-10 Survey Week Number 2
 Survey Partner(s) Moorhatch
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Boulder Creek Road

Time (24 hr)	% Cloud	sky	Wind (range)	Temp (F)
Start 0836	0%	clear patchy overcast drizzle shower	0-3 mph	68°F
1303	0%	clear patchy overcast drizzle shower	3-6 mph	84°F
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 1350		clear patchy overcast drizzle shower	0-5 mph	77°F

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marinx</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	11	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	1	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)		larva → 1	<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	1	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	11		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			Unidentified skipper	1	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Erynnis</i> sp.	11	
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Calliphrys perplexa</i> (Perplexing Hairstreak)	1111				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopteryx lygdamus</i> (Southern Blue)	1111				
<i>Icarcia acmon</i> (Acmon Blue)	1111				
<i>Celastrina ladon</i> (Echo Blue)					

long
vial
w/ 100%
petiole
orange
vial

Surveyor LG + N.MSegment # Maps 30, 34-36Date: 5-5-10

Comments:

Plant Communities and Habitat Information:

Host Plants Present:

Nectar Plants Present: *Sidalcea malvaeflora*
Cryptantha sp., *Erodium* sp., *Plagiobothrys*, *Carissonia* sp., *Lupinus* sp.,
 mustard, *Cercocarpus betuloides*, *Claytonia perfoliata*, *Erodium cicutarium*, *Ceanothus*
leucodermis, *Yucca whipplei*, *Ceanothus greggii*, *Clematis* sp., *Marah macrocarpus*,
Carissonia californica, *Phacelia parryi*, *Trifolium hirtum*, *Trichostema lanceolata*,
~~Penstemon~~ *Dichostemma capitatum*, *Sisyrinchium bellum*, *Lathyrus vestitus*, *Hirschfeldia*

☐ Quino Sighting

Date:

GPS Location:

Amsipia menziesii, *incana*

Photographs Taken:

- | | | |
|-----|-----|--|
| 1. | 2. | <i>Lotus</i> sp. bindweed, chia |
| 4. | 5. | <i>Mimulus aurantiacus</i> , <i>Penstemon californicus</i> |
| 7. | 8. | <i>Carissonia</i> sp., <i>Phacelia cicutaria</i> |
| 10. | 11. | <i>Lotus superius</i> |
| | 12. | <i>Solanum parishii</i> |
| | | <i>Gilia</i> sp. |
| | | <i>Penstemon spectabilis</i> |
| | | <i>Clarkia purpurea</i> |
| | | <i>Pectocarya</i> sp. |
| | | <i>Penstemon centrarchifolius</i> |
- Castilleja*, *Adiantum*, *Castilleja*, *Adiantum*, *Castilleja*, *Adiantum*

Quino Checkerspot General Form

Adult Survey

Location 76033, 40, 12, 14 Survey Segment _____
 Surveyor NR Date 05-May-10 Survey Week Number 2
 Survey Partner(s) JL
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>0850</u>	<u>0</u>	clear	patchy	overcast	drizzle	shower	<u>1-2</u>	<u>63</u>
<u>111</u>	<u>0</u>	clear	patchy	overcast	drizzle	shower	<u>3-7</u>	<u>71</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop <u>1440</u>	<u>0</u>	clear	patchy	overcast	drizzle	shower	<u>2-5</u>	<u>77</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes mariza</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)	<u>1/2/1</u>		<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)	<u>1</u>		<i>Papilio eurymedon</i> (Pale Swallowtail)	<u>1</u>	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>1/1/1</u>	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	<u>1</u>		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<u>Blue Jay</u>	<u>1/2</u>	
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycenidae (Hairstreaks)					
<i>Atides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)	<u>1</u>				
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	<u>1/1</u>				
<i>Celastrina ladon</i> (Echo Blue)	<u>1</u>				

Surveyor NK & JG

Segment # Map 33, 41 + p. 44 Date: 05-Mar-02

Comments: Map 33 not legible - very low. In the line count

Plant Communities and Habitat Information: *Pinus strobus* / *Q. 33*

Host Plants Present: *Parthenocarpus* (very small #s) - *Platanus* (small) - *Pinus* (small) - *Pinus* (small)

[illegible]

☐ Quino Sighting

Date:

GPS Location:**Photographs Taken:**

1.

2.

3.

4.

5.

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8.

9.

10.

11.

12.

Quino Checkerspot General Form

Adult Survey

Location MAPS 37 & 38 Survey Segment _____
 Surveyor N. KIMBALL, M. WILCOX Date 4 MAY 10 Survey Week Number 2
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 0915	0	clear	patchy	overcast	drizzle	shower	1-2 mph	66°F
1211	0	clear	patchy	overcast	drizzle	shower	1-3 mph	75°F
1450	0	clear	patchy	overcast	drizzle	shower	1-3 mph	83°F
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable) hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)	1	
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides myliuta</i> (Myliuta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	1	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	1	
<i>Vanessa annabella</i> (West Coast Lady)	1		<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	1		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	1	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)	1		<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)	1	
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	1		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>BLUE SP.</i>	1	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>ERYNNIS SP.</i>	1	
Lycaenidae (Hairstreaks)			<i>VANESSA SP.</i>	1	
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	1				
<i>Celastrina ladon</i> (Echo Blue)	1				

Surveyor N. KIMBALL,
M. WILCOX

Segment # _____

Date: 4 MAY 10

Comments:

COHU * LAST (ON NEST) ASPID TIG
CORA CARI W/2 EGGS UTA STAN'S
BCSP IN SM PHRY CORA
CAUV SALVA SCEL ORC
APIANA
CATO
NOFI
WEST
CATH
ATFL
ACWO
SPTO
WREN
TUVU
PHAI
NOMO
LABV

Plant Communities and Habitat Information:

Host Plants Present: CASTILLEJA EXERTA, PLANTAGO ERECTA

ERIOD CRASS, MEL INDI, VERICUM SP, CERCUM SP, CALO SPLEND
CEON LEU, GNAPHALUM SP. MARRU VULG, CAST AFFINIS, MARAH MAC,
Nectar Plants Present: BLUE DICK, AMMISOLIA SP, LOTUS SP. (SM, OR/VEH)
CIRCUM, MUSTARDS, LUPINUS BICOLOR, CALYSTEGIA MACROSTEGIA
SAL COL, YUC WHIP, CRYP SP. SYO BEL, ERIO CIN, ALLIUM, SIL GAR,
ERI CONF, CHAE SP, ERIO FASC, WOOLY BLUE CURLS, HEL SP, LUP (HOARY/
STINGING), CAST SP. (NOT OWLS CLOVER), PHAC PAR, LOT SCO, MILKWEED (WHT. FUZ

☐ Quino Sighting

Date: _____

GPS Location: _____

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location CNF Page 40-39 Survey Segment Pg 40
 Surveyor John Green Date 5 May 10 Survey Week Number 22
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: 273012-273031 Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 1130	0	clear patchy overcast drizzle shower	0.6 avg, 3.4 max	74°
1440	25	clear patchy overcast drizzle shower	2.2 avg, 4.7 max	77°
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop		clear patchy overcast drizzle shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot) III	3		<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	1	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	3	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nictippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			Orange tip sp. II	2	
<i>Ochlodes agricola</i> (Rural Skipper)			blue sp. II	10	
Lycaenidae (Hairstreaks)			Duskywing sp. III	4	
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)			Lady I	1	
<i>Callophrys perplexa</i> (Perplexing Hairstreak)			White sp. II	2	
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue) III	4				
<i>Celastrina ladon</i> (Echo Blue) II	3				

Surveyor John Green

Segment # Pg. 40

Date: 5 May 10

Comments:

humna-sp

CORA WREN, BCSP SPTD HOWR CATH
CALT BHGR ACWO CAQV OATI AMCR
ATFL MOQU MODO BEWR WSTA

WIWA - dead under lines

West. Whiptail

Plant Communities and Habitat Information:

Host Plants Present: *Plantago pat.*

Nectar Plants Present: *Plagios*, *Erodium*, *Chaparral Pen*, *Leurothous*, *Sugar bush*, *Mimulus arceuth*, *Manzanita*
^{x3} *Sunscups*, *Chia*, *Phacelia* x2, *Blue Dicks*, *Lotus annual*, *Red Maid*,
Erigeron, *Fas.*, *Stinging Lupine*, *Yucca*, *Mustards*, *Lup. bicolor*,
Dandelion, *Wool*, *Blue Curls*, *Gold Yarrow*, *Rock Lotus*,
Cryptantha, *Allium* @ seep below 273013, *Mimulus aur.*

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Map 42-44

Adult Survey

Location Deslanso CA Survey Segment T L625
 Surveyor Robert Acker - CGI Date 4/27/06 Survey Week Number # 2
 Survey Partner(s) Dave King - AMEL
 Total Acres: _____ Portion Surveyed: Polos 272957-272907 Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 1030	5%	clear	patchy	overcast	drizzle	shower	3-6 mph	75°
1220	20%	clear	patchy	overcast	drizzle	shower	3-6	78°
1450	30%	clear	patchy	overcast	drizzle	shower	3-6	75.6°
1615	40%	clear	patchy	overcast	drizzle	shower	3-4	78.5°
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	1	-
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	1	-	Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)	1	-
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	17	10
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus erictorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	3	2	<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)	1	-	<i>B. Chris Metal Mark</i>	9	5
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Lady Sp.</i>	1	-
Lycaenidae (Hairstreaks)			<i>Blue Sp.</i>	1	-
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia angustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia aemon</i> (Aemon Blue)	17	10			
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor

Rob Hatcher

Segment #

map 42-44
TL625

Date:

4/27/10

Comments:

This alignment mostly in Private property parcels.
Mixed habitat types with some open areas w/ host plants
suitable for QCB. CASEXE mostly setting seed & beginning to dry out.
COTR16 just popping up in small, localized patches.

Plant Communities and Habitat Information:

Inland DCSS mixed w/ Chaparral and
some open CLOW.

Host Plants Present:

CASEXE, COTR16. Sporadic patches of CASEXE
throughout survey area. COTR16 coming up in localized patches.

Nectar Plants Present:

Erodium sp, Cryptantha sp, Pagi chotmusa, Camissonia sp, HIRINE
LOTSTR, DICCAP, GILANG, LOTCON, PHAGRA, CASEXE, TRIWIL, LOTAR26, AMSMEN
LEALEU, SALLOL, GNACAL, CLAPUR, MAZMAC, CALCIL, ESHCAL, SOLXAN,
LASCAL, VIOPEN, LOTSCO, PHAPAR

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

DAVE took lots of pics

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Maps 42-44 Survey Segment _____
 Surveyor David King Date 4/27/10 Survey Week Number 1 / 2 (poly west side of map 44, can't see #5)
 Survey Partner(s) Rob Fleetcher
 Total Acres: _____ Portion Surveyed: Poles 272958 - 163853 Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 1030	0	(clear) patchy overcast drizzle shower	1-6 ^{avg 4}	71.8 / 75 air
1220	0	(clear) patchy overcast drizzle shower	1-6 ^{avg 2}	78.9 / 76 air
1450	0	(clear) patchy overcast drizzle shower	2-6 ^{avg 4}	76.4 / 75 air
1615 End	0 ^{100%}	(clear) patchy overcast drizzle shower	0-6	78.8 / 76 air
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop		clear patchy overcast drizzle shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis furcralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor King

Segment # MS 42-44 Date: 4/27/10

Comments: unable to access Piles 272958 - 272952 - access through yards & farm
able to begin at 279948 and south, images a few acres that pass
through yards or over house
- clear, calm weather, but seemingly few butterflies out

Plant Communities and Habitat Information:

272956 - 272 217 southern mixed chap dom chemise with patches
of coastal sage scrub dom Eriogon fasciculata - dense but with ^{smaller} openings
and ~~abundant~~ access red is vegetation w/ mtd flang. Coal

Host Plants Present: Continuing sct / patchy Castanopsis, primarily in utility corridor / access rd - edges from 272944 to 272925
From (can't read on map, W. edge of field - W. edge of map 44 - Cordylanthus stalks sprout on all dirt roads + open area - not done last year -

Nectar Plants Present:

Nectar Plants Present:		Similar (detected)	Yucca whipplei
Clarkia (2 spp.)	Dichlosterum sp	Clarkia sp (1)	Rhus
Lotus	Cryptantha spp	Amorpha	Gnaphalium
Triethnum miltidonati	Brasibolus spp	Erodium	Brasibolus
Pipistechus sp	(yellow aster-danglur-like)	Erodium bothrys	Claydonia sp.
	Clarkia purp	Clarkia (1) - (like dion, large)	Phacelia grandiflora

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.	1. <i>Leucospermum</i> sp.
4.	5.	6.	2. <i>Castanea</i> sp. etc
7.	8.	9.	3. <i>Viburnum pendulum</i>
10.	11.	12.	4. <i>Myrica</i> sp.
			5. <i>Calliandra</i> sp.

Quino Checkerspot General Form

Adult Survey

Location ME50 Survey Segment _____
 Surveyor DAVID KING Date 4/13 Survey Week Number 2
 Survey Partner(s) NICOLE KIM South from 10 miles valley rd
 Total Acres: _____ Portion Surveyed: about 1.5 to 574.437 Elevation: Max _____ Min _____
(John Henry N. from here)

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>1535</u>	<u>50</u>	clear	<u>patchy</u>	overcast	drizzle	shower	<u>0-9</u> <u>40.7</u>	<u>62.6/64.1</u>
End <u>1714</u>	<u>50</u>	clear	<u>patchy</u>	overcast	drizzle	shower	<u>2-5 m/h</u>	<u>62.8/54.1</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

no butterflies, too cold

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marira</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glauopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor King

Segment # MS 50

Date: 4/13/10

Comments: saw from 571437, south along access RD to left pole
 Raccoon
 RSTO
 SP so the Castilleja ex on both sides of RD & in all openers in chip from
 made for before half way past to end of access RD at 439 - showing a 10' deep
 typically

Plant Communities and Habitat Information:

Host Plants Present:

Nectar Plants Present:

Lupinus (big, purple)	Silvia complanata	Lobelia
Cryptantha sp.	Pectocarya	Malva
Brassica sp.	Erodium cili	Silene sp
wooly Lupines	Silene nutans	

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

57 to 58 stopped on the way to 58 (next point beyond)

Quino Checkerspot General Form

Adult Survey

Location 571337 to 571433 Survey Segment MS-050
 Surveyor John Green Date 13-4-10 Survey Week Number 28
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 1545	30%	clear	patchy	overcast	drizzle	shower	0-9, 7 avg.	62°
1230		clear	patchy	overcast	drizzle	shower	0-2, 0.7 avg.	!
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop 1200	30	clear	patchy	overcast	drizzle	shower	0-3.7, 1.3 avg.	50°

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes mariza</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Ponitis protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>No butterfly</i>		
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icaricia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Date: 13-Apr-10

WCS

7. 1000000

② Fe^{2+} 的氧化: $\text{Fe}^{2+} \rightarrow \text{Fe}^{3+} + e^-$

8. *pe. torosa*, *ocul.*, *Carrisoria*, *torosa* sp. Purple line on the side.

GPS Location:

1.

2.

3.

4.

5.

6

7.

8.

9

10.

11.

12.

Quino Checkerspot General Form

Adult Survey

Location Map 04, 51, 45 - 50 Survey Segment _____
 Surveyor NK Date 13-Apr-12 Survey Week Number 2
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>1100</u>	<u>20</u>	clear	<u>patchy</u>	overcast	drizzle	shower	<u>0-1</u>	<u>64</u>
<u>1200</u>	<u>15</u>	clear	patchy	overcast	drizzle	shower	<u>3-4</u>	<u>68</u>
<u>1300</u>	<u>25</u>	clear	patchy	overcast	drizzle	shower	<u>3-5 w/ gusts to 13</u>	<u>71</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop <u>1700</u>	<u>30</u>	clear	<u>patchy</u>	overcast	drizzle	shower	<u>0-4</u>	<u>60</u>

Habitat onsite (circle as applicable): hills, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marino</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	1	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	1	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	1		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	11		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Lupinus</i>	11	
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	1				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icaricia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor UK

Segment # May 54, 5 - 5:00 Date: 13-Apr-10

Comments: Pale S-tail 1st B. Fly 10 1055: ...
... 1st B. Fly 10 1055: ...
... 1st B. Fly 10 1055: ...

Plant Communities and Habitat Information:

Host Plants Present: ...

Nectar Plants Present:

... Discomorph, Euphorbia, ...
... Tidus, ...
... Red ...
... Yucca ...

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location MS55 from Manzanita R) to fence near pole 57744 Survey Segment _____
 Surveyor DAVID KING Date 4/13/10 Survey Week Number 2
 Survey Partner(s) none
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____
moderate rain yesterday, ground is wet

1155

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start <u>5:00</u> <u>5:30</u> <u>6:00</u>	20%	clear <u>patchy</u> overcast drizzle shower	0-5 ^{to} 8	58 ^{rising} / 56 ^{rising}
1225	20%	clear <u>patchy</u> overcast drizzle shower	1-2	66 ^{rising} / 56 ^{rising}
1400	30%	clear <u>patchy</u> ^{sun} overcast drizzle shower	4-8	65 ^{rising} / 61.5 ^{rising}
1545	15%	clear <u>patchy</u> overcast drizzle shower	4-14 ^{avg} 8	61 ^{rising} / 53 ^{rising}
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop		clear patchy overcast drizzle shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes maris</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)	1	
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	147	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur) ~ 3	1	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis furalis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Scythris (brown)</i>		
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	1				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopteryx lydamus</i> (Southern Blue)	1				
<i>Icarcia acmon</i> (Acmon Blue)	1				
<i>Celastrina ladon</i> (Echo Blue)					

Segment # MS 55 ^{no item 4/2} Date: 4/13/10

1150 Comments: started w/ mercurial Temp 55 at ground, θ_0 is shaded say. Air cold when breeze picks up - good solar radiation. Collecting blooming plant name on trip out, will collect b-fb data once air warms.

W. Fence lizard 1230 - warm exemption cool wind, insects beginning to appear - stable to - 65° 52°
 nest in ch at pole 223 998, and north

but 1250 1st orange tip

① - 1000' of Castilian extends on cat slope surrounding N^E end of sub station on open ground. Common w/ *Cryptantha* sp. a sparse covering.

DEJU
EUST
AHHU
BGGM (pin) - map of road

By: Conforti

570

CATO

7000



2

1

Plant Communities and Habitat Information:

Prepared S. mixed chaperonal

Host Plants Present:

Nectar Plants Present: - All b/o opening

<i>Phacelium parvifolium</i>	<i>Cryptantha</i> spp.	<i>Commersonia</i> (tail)	Yellow wild (yellow) rock rose	<i>Reseda</i> spp.	<i>Grass</i> (tail)
<i>Erodium</i> sp.	<i>Platycodon</i> spp.	unknown mustard	<i>Eriophyllum</i> cat. f.	<i>Probleptis</i>	<i>Probleptis</i>
<i>Salvia columbiana</i>	small yellow flowers	<i>Gnaphalium</i> spp.	marsh reed	<i>Sp. Lantana</i> sp.	<i>Sp. Lantana</i> sp.
<i>Lycopersicon</i>	<i>(Petal)</i> <i>Pectocorn</i> sp.	unk. m. f. (Petal) mustard	Golden, ear droop	<i>Sp. Lantana</i> sp.	<i>Sp. Lantana</i> sp.
small yellow stem	<i>Ceanothus</i> spp.	<i>Rock</i> m. f. (Petal) mustard	<i>Echinos</i> cat.	<i>Sp. Lantana</i> sp.	<i>Sp. Lantana</i> sp.
☐ Quino Sighting	chop pea spring bulbs	<i>Calyptrogon</i> sp.		<i>Sp. Lantana</i> sp.	<i>Sp. Lantana</i> sp.
		Date: 0-11-11	GPS Location:		

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Pages 055, 056, 057 S. of Mezzanite Survey Segment _____
 Surveyor John Green Date 13 Apr 10 Survey Week Number 2
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: 257147 - 257187 Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start <u>1:00</u>	<u>25</u>	clear <u>(patchy)</u> overcast drizzle shower	<u>6-7</u>	<u>61.0</u>
<u>1350</u>	<u>45</u>	clear <u>(patchy)</u> overcast drizzle shower	<u>1-4</u>	<u>62.2</u>
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop <u>1500</u>	<u>20</u>	clear <u>(patchy)</u> overcast drizzle shower	<u>1-5</u>	<u>59.5</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis fureralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Dasyproctus</i>		
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Protoparce</i> sp.		
Lycaenidae (Hairstreaks)			<i>Dasyproctus</i>		
<i>Atlides halesus</i> (Great Purple Hairstreak)			<i>Silene</i>		
<i>Incisalia augustinus</i> (Western Brown Elfin)			<i>Chrysomelids</i>		
<i>Callophrys perplexa</i> (Perplexing Hairstreak)			<i>Blue (p.s. ...)</i>		
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopteryx lydamus</i> (Southern Blue)					
<i>Icaricia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor J. Green

Segment # 55, 56, 57 ^{Maps}

Date: 13-Apr-10

Comments:

TWNU COLACT, near 257145
 BUCK WIS
 BCSP HOS
 WITLA LASP
 WITLA MCYC
 RCGP () ; also noted in 571457; road 571485 & 571477; we way 571457
 ROVIS HOF
 WE
 PTUA
 COPE
 HOS
 ZEL
 ZEL

Plant Communities and Habitat Information:

burned chaparral

Host Plants Present:

None

Nectar Plants Present:

Quercus agrifolia 2 sp, Phacelia 2 spp, The ... of ... All ... Dandelion ...
 (An ...) ... H ... L ... 2 ... and pepper stalks, Basil ... Vigners, P ... , Mag ...
 P ... 2 ... 1 ... some ... 2 spp, ...

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Photo ...

Quino Checkerspot General Form

Adult Survey

Location

Survey Segment

Map

Surveyor

Laurie Gorman

Date 5-7-10

Survey Week Number 2

Survey Partner(s)

Steve Myers

Total Acres:

Portion Surveyed:

Elevation: Max

Min

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 0940	0%	clear patchy overcast drizzle shower	4-6 mph	70°F
1050	0%	clear patchy overcast drizzle shower	4-8 mph	72°F
1300	0%	clear patchy overcast drizzle shower	2-5 mph	78°F
1420	0%	clear patchy overcast drizzle shower	1-5 mph	80°F
1502	0%	clear patchy overcast drizzle shower	0-3 mph	83.5°F
		clear patchy overcast drizzle shower		
Stop 1540	0%	clear patchy overcast drizzle shower	2-5 mph	78°F

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-toppling	Butterfly Species	Count (Total)	Hill-toppling
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbi</i> (Gabb's Checkerspot)	9		<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)	42+	
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	11	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	1		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	17 +	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	11	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	1	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	1		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			Cephaotes		
<i>Ochlodes agricola</i> (Rural Skipper)			Pearly Marble	11	
Lycaenidae (Hairstreaks)			(<i>Euchloe hyantis</i>)		
<i>Atlides halesus</i> (Great Purple Hairstreak)			<i>Erynnis</i> sp.	1	
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	1		Common Sooty-wing	1	
<i>Strymon melinus</i> (Gray Hairstreak)			<i>Vanessa</i> sp.	1	
<i>Glaucopsyche lygdamus</i> (Southern Blue)	1		<i>Pontia</i> sp.	1	
<i>Icarcia acmon</i> (Acmon Blue)	14 + 1		unidentified blue	4	
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor Laure Gorman & Steve Myers Segment # Map 11-74 Date: 5-7-10

Comments:

Plant Communities and Habitat Information: Chaparral, Great Basin Sagebrush

Host Plants Present: Collinsia concolor

Nectar Plants Present: Penstemon centranthifolius, Trichostema parishii, hastaria californica, Ceonothus leucodermis, Paeonia californica, Ranunculus sp., Erodium cicutarium, Cryptantha sp., Eriophyllum confertiflorum, Camissonia sp., mustard, Amsinckia menziesii, Yucca whipplei, Phacelia distans, Gilia capitata, Lupinus concinnus, chia, Lupinus bicolor, Lupinus sp., Calycoseris parryi, Linanthus lemmonii, Plagiobothrys sp., Ericameria linearifolia, Arabis sp.

☐ Quino Sighting

Date:

GPS Location:

Penstemon spectabilis, Lotus scoparius, Ephedra californica, Collinsia tobiolosa, Yucca schottigera

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location CNE Survey Segment Maps 2-4
 Surveyor Stephen J. Myers Date 10 May 10 Survey Week Number 3
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 1010	50	clear	patchy	overcast	drizzle	shower	0-2	61°
1120	40	clear	patchy	overcast	drizzle	shower	0-3	60°
1230	50	clear	patchy	overcast	drizzle	shower	2-7	60°
1315	30	clear	patchy	overcast	drizzle	shower	2-6	64°
1400	60	clear	patchy	overcast	drizzle	shower	2-5	64°
1450	70	clear	patchy	overcast	drizzle	shower	3-10	60°
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Rlantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marira</i> (Marine Blue)	2	
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)	1		<i>Papilio eurymedon</i> (Pale Swallowtail)	1	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	3	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	1	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus erictorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>blue sp.</i>	3	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Erynnis sp.</i>	2	
Lycaenidae (Hairstreaks)					
<i>Atides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	20				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor MyersSegment # Maps 2-4Date: 10 May 10

Comments:

Plant Communities and Habitat Information:

NNG, Oak woodland + oak savannah, Deerweed scrub

Host Plants Present:

Plantago erecta, Castilleja exserta

Nectar Plants Present:

Dichelostemma, Lupinus spp., Turicula parryi, Lotus spp.,
Lathenia calif., Phacelia, Salvia columbariae, Penstemon spectabilis☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Hwy 76, Maps 5-8 Survey Segment _____
 Surveyor MCGOUGH Date 5-10-10 Survey Week Number 3
 Survey Partner(s) WILCOX - WEST
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start <u>1110</u>	<u>76%</u>	clear <u>patchy</u> overcast drizzle shower	<u>1-3</u>	<u>60°</u>
		clear patchy overcast drizzle shower		
<u>arrive loco 510 F</u>		clear <u>patchy</u> overcast drizzle shower		<u>51°</u>
		clear patchy overcast drizzle shower		
<u>1400</u>		clear <u>patchy</u> overcast drizzle shower		<u>64° F</u>
		clear patchy overcast drizzle shower		
Stop <u>1530</u>		clear <u>patchy</u> overcast drizzle shower	<u>4-15</u>	<u>56° F</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	<u>1</u>	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>3</u>	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	<u>1</u>		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)			<u>LUPINE BLUE?</u>	<u>1</u>	
Lycaenidae (Hairstreaks)					
<i>Atides halesus</i> (Great Purple Hairstreak)			<u>WHITE SP</u>	<u>3</u>	
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)			<u>BLUE SP</u>	<u>2</u>	
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	<u>3</u>				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor MSAUGH

Segment # MSB 5-8

Date: 5-10-10

Comments:

Plant Communities and Habitat Information:

CHAPARRAL
CES
OAK WOODLAND

Host Plants Present:

PLANTAGE + COW'S CLOVER STILL IN GOOD SHAPE BUT BRINK
HIDDEN BY GRASSES

Nectar Plants Present:

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location MPS 5-8 Survey Segment _____
 Surveyor MCGAUGH Date 11/10/04 Survey Week Number 3
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>0830</u>	<u>0</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>0-2</u>	<u>70°</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop <u>1610</u>	<u>0</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>2-6</u>	<u>68°</u>

Habitat onsite (circle as applicable): hilltops ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)	<u>1</u>		<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)	<u>1</u>		<i>Papilio eurymedon</i> (Pale Swallowtail)	<u>1</u>	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	<u>1</u>	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>4</u>	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heltopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)			<u>blue sp.</u>	<u>3</u>	
Lycaenidae (Hairstreaks)			<u>sulphur sp. (2 species?)</u>	<u>4</u>	
<i>Atlides halesus</i> (Great Purple Hairstreak)			<u>Calceana Sister</u>	<u>1</u>	
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche hydamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	<u>5</u>	<u>✓</u>			
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor MCGAUGH Segment # WAB 5-8 Date: May 5, 2010

Comments:

Nice day for survey - good weather, flowers, not much wind BUT ... so few BUTTERFLIES!

Plant Communities and Habitat Information:

chaparral,
oak woodland
grassland

Host Plants Present:

Plutons, previously mapped, in pretty good condition
Castilleja - previously mapped

Nectar Plants Present: many

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Maps 9-10

Adult Survey

Location CNF - San Luis Rey RiverSurvey Segment Hiway 76 (West)Surveyor MCGAUGHDate 5-12-10Survey Week Number 3Survey Partner(s) MERS

Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>0740</u>	<u>0</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>0-2</u>	<u>61</u>
<u>1120</u>	<u>0</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>2-6</u>	<u>67</u>
<u>1200</u>	<u>0</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>3-8</u>	<u>67</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable) hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)	<u>1</u>	
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	<u>12</u>	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)	<u>4</u>		<i>Papilio eurymedon</i> (Pale Swallowtail)	<u>2</u>	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>3</u>	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)	<u>1</u>		<i>Corvus Blue</i>	<u>1</u>	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Sulphur</i>	<u>1</u>	
Lycaenidae (Hairstreaks)			<i>Blue sp</i>	<u>7</u>	
<i>Atlides halesus</i> (Great Purple Hairstreak)			<i>White sp</i>	<u>11</u>	
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	<u>17</u>				
<i>Celastrina ladon</i> (Echo Blue)	<u>1</u>				

Surveyor CM, SM

Segment # Maps 9-10

Date: 12-May-10

Comments:

Plant Communities and Habitat Information:

Host Plants Present:

Nectar Plants Present:

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Map 28 & 29, 30, 34-36 Survey Segment _____
 Surveyor N. Kimball, N. Moorhead Date 5/12/10 Survey Week Number 3
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 0955	0	(clear) patchy overcast drizzle shower	2-3 mph	64
1345	0	(clear) patchy overcast drizzle shower	4-7 mph	87
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 15:05	0	(clear) patchy overcast drizzle shower	2-4 mph	74

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes mariza</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	1	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	111	111
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	11	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	11		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)	1		<i>Becker's White</i>	1	
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)		11			
<i>Icarcia acmon</i> (Acmon Blue)		many ← 111 111			
<i>Celastrina ladon</i> (Echo Blue)		111 111			

Surveyor NK + NMSegment # Maps 28-29, 30,
34-36Date: 5/12/10

Comments:

Plant Communities and Habitat Information:

Host Plants Present: Cordylanthus rigidus, Castilleja exserta, Collinsia

Yucca schidigera, Peaonia Red Maids, Pectocarya, Lupinus hirsut, Hirsch. incana, Lasth. cal., Eriophyllum
Penstemon centranthi, Chia, Mimulus bigelovii, Salvia stevei, Claytonia, Achillea mille., Eriog. fasc.,
Sidalcea malvi, Linanthus parviflorus, Plantago patagonica, Cercocarpus bet., Castill. affinis, Penst. spect.

Nectar Plants Present: Eschscholzia cal., Erod. cica, Lupinus bicolor, Cryptantha sp., Yucca whip.,
Trichostema parryi, Phacelia parryi, Amsinckia menz, Lotus scaparius, Plagiobothrys, Clematis, Camissonia sp.,
Rose clover, Trifolium wilkenovii, Plantago ovata, Penstemon heterophyllus, Silene gallica, Anagallis arvensis
Hypochaeris, Eriophyllum confertii, Calochortus albus, Dichelostemma capi., Mimulus aurantiacus, Blue eyes,
Marah macro, Ceanothus leuco, Clarkia sp., Sambucus mex., Toxicodendron, Lonicera, Rosa cal., Phacelia cici

☐ Quino Sighting Erodium botrys. Date: Blue-eyed grass GPS Location: Gnaphalium bicolor, Gilia sp.,

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Map 3033 Survey Segment Maps 30-33
 Surveyor Laurie Gorman Date 5-13-10 Survey Week Number _____
 Survey Partner(s) Nate Moorhach
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>0930</u>	<u>0</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>0-2.5 mph</u>	<u>62</u>
<u>1241</u>	<u>10% Min</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>3-7 mph</u>	<u>74.5°F</u>
<u>1345</u>	<u>15% Min</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>0-3 mph</u>	<u>73.0°F</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop <u>1500</u>	<u>10%</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>3-8 mph</u>	<u>68.0°F</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydras editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydras chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funeral Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Unknown Skipper</i>	<u>111</u>	<u>111</u>
<i>Ochlodes agricola</i> (Rural Skipper)			<i>(Juba-like)</i>		
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icaricia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor LG + NMSegment # Maps 30-33Date: 13-May-10

Comments:

Plant Communities and Habitat Information:

Host Plants Present:

Nectar Plants Present:

Cryptantha, *Dichelastemma cap.*, *Erad. sic.*, *Camissonia sp.*, YUC WHI,
~~Chia~~ ~~ZALME~~, TRI PAR, ~~CEO~~ FOL, SAL SON, MIMBLE, *Lomatium sp.*, SIS BEZ
HYPOLA, Lotus sp., CEO GRE, *Clematis sp.*, WUP BIG, *Lupinus sp.*, LIN FLO, SOL PAR,
PEN CEN, GIL CAP, TRI WIL, NEM MEA,

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Maps 37 + 38 Survey Segment _____
 Surveyor NK & MB Date 07 May 10 Survey Week Number 3
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start <u>0830</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>0-1</u>	<u>61 (Air-66)</u>
<u>0650</u>	<u>-</u>	clear patchy overcast drizzle shower	<u>-</u>	<u>-</u>
<u>1150</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>2-5</u>	<u>87 (Air-79)</u>
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop <u>1405</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>3-5</u>	<u>85 (Air-82)</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources. mostly

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiope</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	<u>11</u>	<u>11</u>
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	<u>11</u>	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	<u>11</u>		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>11</u>	<u>11</u>
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	<u>11</u>	<u>11</u>
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	<u>11</u>		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Blue sp.</i>	<u>11</u>	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>White sp.</i>	<u>11</u>	
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)	<u>11</u>				
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	<u>11</u>				
<i>Strymon melinus</i> (Gray Hairstreak)	<u>11</u>				
<i>Glaucopsyche lygdamus</i> (Southern Blue)	<u>11</u>				
<i>Icarcia acmon</i> (Acmon Blue)	<u>11</u>				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor NK + MBSegment # Maps 37 + 38Date: 07-May-10

Comments: Made to wait for ground to warm up; Surprisingly very low butterfly activity on top of hill @ E-most portion of Map 38, espec. w/ Plant, Cast., & Cord. present

Plant Communities and Habitat Information:

Host Plants Present: Cest. ex. (beg. to go to seed), Cord. rig. (finely scattered top 2/3 of hill @ E-most portion of Map 38); P. pat. (beg. to flower in same section as Cord. rig.); P. ex. beg. to go to seed

Flowering Nectar Plants Present: Sch. coh., Mustard, Eriogonum, Eria. grass, Hypo., Meli. ind., Crypt., Caly. maen., Woolly Blue chrys., Eri. cir., Inc. whips, Allium, Eria. conch., Helianthus, Helianthus, Cup. br., Cirsium, Syc. bel., Stinging lupine, Card. off., Lot. scop., Dich. cap., Senecio, Cean. leuco., Wild Pen. Pectay, Michauxia, Datura, Datura, Mim. br., Mim. aur., Helianthus, Sil. gal., Ade. tas., ana. arl., cal. spen., Blomelia, A. d. d. d., Poro grow, Poro par.

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Adult Survey

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 0858	0	clear patchy overcast drizzle shower	0-1	61 (Air-63)
1138	5	clear → patchy overcast drizzle shower	3-7	72 (Air-71)
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 1345	15	clear → patchy overcast drizzle shower	6-9	83 (Air-75)

Butterfly Species	Count (Total)	Hill- topping	Butterfly Species	Count (Total)	Hill- topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydras editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydras chalcadona</i> (Chalcidon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thestalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia normo</i> (Mormon Metalmark)	//	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	#1	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	1	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	41	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	//	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescent</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atilides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia angustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)	many				

Surveyor

UK

Segment #

Map 40

Date: 12-May-10

Comments: Map 40 - Arcto, Quercus, Adiantum, Ceanothus - tree shrubs

Plant Communities and Habitat Information:

Host Plants Present: Cast. ex - going to seed

Corn. rig. - up to bin tall (Map 40) - beg. to sprout (Map 41)

Flowering Noctar Plants Present: Wild pea, Yucc. whip., Camissonia, Crypt., Er. cis., Cean. laevis, Mustard, Rhus ovata, Sol. col., Dick. cap., Phac. par., Stinging lupine, Enig. conf., Hypo. Min. brev., Lup. bei., Woolly Bluebell, Clarkia, Lot. scop., Sil. gal., Ari. fasc., Phac. ar., Min. ang., Rock Lotus, Penstemon, Plagio., Min. big., Pecto., Clay. per., Helianthus, P. appendic., Sidalcea, Philox., Syp. bel., Esch. cal., Yucc. schiz., Sol. par., Gilia, Lemn. min., Cast. affinis, Trifolium, Red Maids

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

Quino Checkerspot General Form

Adult Survey

Location

Survey Segment Maps 41-43

Surveyor

Laurie Gorman

Date 5-14-10

Survey Week Number 3

Survey Partner(s)

Mike Wilcox

Total Acres:

Portion Surveyed:

Elevation: Max

Min

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start <u>0900</u>	<u>0%</u>	<u>clear</u> patchy overcast drizzle shower	<u>0-2 mph</u>	<u>68.0°F</u>
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop <u>1350</u>	<u>15%</u>	<u>clear</u> patchy overcast drizzle shower	<u>0-12 mph</u>	<u>73.0°F</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes mariza</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)	<u>11</u>		<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	<u>11</u>	<u>11</u>
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)	<u>11</u>	<u>11</u>
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>11</u>	<u>11</u>
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	<u>1</u>	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	<u>1</u>		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Unidentified blue</i>	<u>11</u>	<u>11</u>
<i>Ochlodes agricola</i> (Rural Skipper)			<i>California sister</i>	<u>1</u>	
Lycaenidae (Hairstreaks)			<i>Unidentified white</i>	<u>1</u>	
<i>Atalides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)	<u>1</u>				
<i>Glaucopteryx lygdamus</i> (Southern Blue)					
<i>Icaricia acmon</i> (Acmon Blue)	<u>11</u>	<u>11</u>			
<i>Celastrina ladon</i> (Echo Blue)	<u>11</u>	<u>11</u>			

Surveyor MW + LGSegment # Maps 41-44Date: 14 May 10

Comments:

Plant Communities and Habitat Information:

Host Plants Present: Castilleja exerta, Plantago patagonica (growing in road access)Nectar Plants Present: Mustard, PENCEN, Lamissonia sp., Cryptantha sp., ERO BOT DIC CAP, ERI CON, CIR OCC, LOT SCOP, HYR GLA, TRI PAR, CLA PUR, YUC WHI, LUP BIC, SIL GAL, YUC SCH, ASC CAL, LAT VES, DOD CLE, LOT CIR, ~~TRIFOLIUM~~ Trifolium sp., ERO CIR, SPH ROS, ANA ARV, TRI ALB, ACH MIL, CAL GRE, Astragalus sp., CEN VEN, GNA CAL, CLA PAR, Plagiobothrys sp., CAS FOL, PENSPE, CHIA, SYS BEL, Lotus sp.☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Pages

Adult Survey

Location CNF / SDGSE

Survey Segment

49-56 (not 52-53)Surveyor John Green

Date

27 Apr 10Survey Week Number 3Survey Partner(s) Chet McGough, Steve Myers

Total Acres: _____

Portion Surveyed: _____

Elevation: Max _____

Min _____

Time (24 hr)	% Cloud	Sky						Wind (range)	Temp (F)
Start <u>1000</u>	<u>0</u>	<u>clear</u>	<u>patchy</u>	<u>overcast</u>	<u>drizzle</u>	<u>shower</u>		<u>0-1</u>	<u>70°</u>
<u>1150</u>	<u>10</u>	<u>clear</u>	<u>patchy</u>	<u>overcast</u>	<u>drizzle</u>	<u>shower</u>		<u>3-5</u>	<u>73</u>
<u>1300</u>	<u>50 4/5</u>	<u>clear</u>	<u>patchy</u>	<u>overcast</u>	<u>drizzle</u>	<u>shower</u>		<u>2-5</u>	<u>73</u>
<u>1430</u>	<u>20</u>	<u>clear</u>	<u>patchy</u>	<u>overcast</u>	<u>drizzle</u>	<u>shower</u>		<u>1-5</u>	<u>74</u>
<u>1600</u>	<u>20</u>	<u>clear</u>	<u>patchy</u>	<u>overcast</u>	<u>drizzle</u>	<u>shower</u>		<u>2-6</u>	<u>70</u>
		<u>clear</u>	<u>patchy</u>	<u>overcast</u>	<u>drizzle</u>	<u>shower</u>			
Stop <u>1520</u>	<u>20</u>	<u>clear</u>	<u>patchy</u>	<u>overcast</u>	<u>drizzle</u>	<u>shower</u>		<u>3-6</u>	<u>70</u>

Habitat onsite (circle as applicable) hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago
Castilleja, Cordylanthus, Antirrhinum, nectar sources

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philates sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (C. calcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Rhodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	<u>13</u>	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	<u>1</u>	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	<u>7</u>	
<i>Vanessa atalanta</i> (Red Admiral)	<u>1</u>		<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	<u>2</u>		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>54</u>	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	<u>2</u>	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus erictorum</i> (Northern White-Skipper)	<u>2</u>		<i>Colias harfordii</i> (Harford's Sulphur)	<u>10</u>	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	<u>7</u>		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Vanessa</i> sp.	<u>1</u>	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Sister</i>	<u>1</u>	
Lycaenidae (Hairstreaks)			<i>Erynnis</i> sp.	<u>8</u>	
<i>Ailides halesus</i> (Great Purple Hairstreak)			<i>Sm. Ch. Skipper?</i>	<u>1</u>	
<i>Incisalia augustinus</i> (Western Brown Elf)			<i>Blue-sp.</i>	<u>7</u>	
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	<u>4</u>		<i>Orangetip</i> sp.	<u>31</u>	
<i>Strymon melinus</i> (Gray Hairstreak)			<i>White-sp.</i>	<u>12</u>	
<i>Glaucopsyche hydamus</i> (Southern Blue)	<u>1</u>		<i>Sulphur</i> sp.	<u>15</u>	
<i>Icarcia acmon</i> (Acmon Blue)	<u>7</u>				
<i>Celastrina ludon</i> (Echo Blue)					

Surveyor John Green

Lyons Valley Rd. &
Segment # Deerhorn Valley

Date: 4-27-10

Comments:

Plant Communities and Habitat Information: Chaparral, Oak Woodland, NNG,
CSS

Host Plants Present: Plantago erecta & Owl's Clover

Nectar Plants Present: Phacelia, Lupine, Blue Dicks, Goldfields, & many
others

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

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Quino Checkerspot General Form

Adult Survey

Location Map 52 (west), 55 Survey Segment _____
 Surveyor NK Date 03 May 10 Survey Week Number 3 - #5 for Map 55
 Survey Partner(s) LC
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>0910</u>	<u>0</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>0-1</u>	<u>65 (hr 68)</u>
<u>1118</u>	<u>0</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>4-7</u>	<u>76 (hr 79)</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop <u>1307</u>	<u>0</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>1-2 (hr 4-6)</u>	<u>85 (hr 79)</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	<u>1</u>	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	<u>11</u>		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>1</u>	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	<u>1</u>	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>White sp. (possibly E. ...)</i>	<u>1</u>	
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue) <u>many (100s)</u>	<u>1</u>				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor NKSegment # Map 52(w), 55Date: 03-May-10Comments: Las cal. readily drying up

Plant Communities and Habitat Information:

Host Plants Present: Cact. sp. - very low in back

Flowers: Nectar Plants Present: Phac. cca, Tiger Lips, Las cal, mustard, Crypt., large many Yucca spines, Sil. column, Gilia, Campanula, L. miss, Anemone, Sil. plant, many Yucca spines, small yellow, Pen. leaves, Keckia, Clarkia purp., Eriogonum, Esch. cal, lot. sage, P. sp. per, Helianthus, Sol. per, caly. anemone, White. Pen, Gut. Sarcocolla, Yucca whipplei, Yucca, Ceanothus, Anemone, P. sp. per, 7 yellow, 10. 11. 12. Scrophularia, Blue. flower, Rh. munda, Delphinium

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

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Quino Checkerspot General Form

Adult Survey

Location _____ Survey Segment Maps 52, 56, 57
 Surveyor Laurie Gorman Date 5-3-10 Survey Week Number 3
 Survey Partner(s) Nicole Kimball
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 0910	0%	clear patchy overcast drizzle shower	0-1	65°F
0955	0%	clear patchy overcast drizzle shower	5-11.4 mph	79.0°F
1114	0%	clear patchy overcast drizzle shower	0-2 mph	79.0°F
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 1307	0%	clear patchy overcast drizzle shower	4-6 mph	85°F (79°F)

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantsago, Castilleja, Cordylanthus, Antirrhinum, nectar sources, dirt access roads, on ground, in air

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes mariza</i> (Marine Blue)	1	
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	1	
<i>Vanessa annabella</i> (West Coast Lady)	1		<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	11	11
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)	1	
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	111	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	1		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Common white</i>	11	
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopteryx lygdamus</i> (Southern Blue)					
<i>Icaricia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor Laure Gorman Segment # _____

Date: 5-3-10

Comments:

Plant Communities and Habitat Information: gorman mixed chaparral dominant

Host Plants Present: Castilleja exerta

Nectar Plants Present: Erodium betrys, tidy tips, lupinus bicolor, Cryptantha sp., Lathyrus
Phacelia distans, Penstemon centranthifolius, Papaver californica, Keckiella adimrhinoides,
chia, lotus scoparius, Chaenactis art. (white pincushion) CA poppy, bindweed,
phacelia pargyil, phacelia circutaria, Agrostis grandiflora, Distichlis spicata, Eriophyllum
compositiflorum, mustard, Camissonia sp., yerba santa, Gnaphalium bicolor, Helianthus

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Penstemon
Scoparia
Yucca whipplei
Golden earrings
Wild pea
Vigiera grandiflora
Silene gallica
Yucca whipplei
Blue larkspur

Quino Checkerspot General Form

Adult Survey

Location MS 55 (North from Mahogany Hwy) Survey Segment 105-070
 Surveyor David King Date 4/24/10 Survey Week Number 3
 Survey Partner(s) Nicole Kumball
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 1205	0	clear	patchy	overcast	drizzle	shower	2-8 mph ^{variable}	61g / 60air
1300 ^{sun out} _{cloud break}	2	clear	patchy	overcast	drizzle	shower	2-12 mph ^{acc}	63g / 58air
1420	30%	clear	patchy	overcast	drizzle	shower	2-15 mph ^{acc}	68g / 58air
1520	10%	clear	patchy	overcast	drizzle	shower	6-9 mph ^{acc}	61g / 55air
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)	1	
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	1		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)	1	
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	1	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS: <u>white sp.</u>	1	
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	11				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor KingSegment # MS55Date: 4/23/10Comments: Rain/snow last 2 days in areaclear this morning, 34 min but cold at noon startTypical # of butterflies in the airundist Later... butterflies flying in chittling greens and dunes (climb in breeze
but but sparse when cold breeze (58°) is upNonemale fern (?)sosfBCSPSPTDCatocongDas cottinatalGrassite glaryW. Lane lilyhoFical grass squashedIBUDBCSPAnhumrdo

Plant Communities and Habitat Information:

Host Plants Present:

Cast. exort. 250 plants (map) n ~ boulders 10x50 stripBloomy

Neectar Plants Present:

<u>Eridium cic</u>	<u>Heterotheca sp.</u>	<u>Lotus scoparum</u>	<u>Lotus</u>	<u>Kochia sp.</u>	<u>Feetnizum cal</u>
<u>Silene spald.</u>	<u>sm yellow aster</u>	<u>Camissonia sp. p</u>	<u>Carosca sp.</u>	<u>Penstemon sp.</u>	<u>African Daisy</u>
<u>Cryptantha spp</u>	<u>Bros nigra</u>	<u>Chrys. meloc. Thomas pa</u>	<u>Calistoga madro</u>	<u>Golden ear 2011</u>	<u>mimulus (yellow)</u>
<u>Placibobius spp</u>	<u>spring bulbs</u>	<u>Yucca whip</u>	<u>Gnaphalium spp.</u>	<u>blue daisy</u>	<u>lamb's ear</u>
		<u>SEALARM sp.</u>	<u>Eriophyllum cal</u>	<u>Rock rose</u>	

☐ Quino Sightingchap ren

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Map 55 + 56 Survey Segment _____
 Surveyor NK Date 23 Apr 10 Survey Week Number 3
 Survey Partner(s) DK
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>800</u>	<u>5</u>	clear	patchy	overcast	drizzle	shower	<u>1-2 w/gusts up to 11</u>	<u>68</u>
<u>1111</u>	<u>10</u>	clear	patchy	overcast	drizzle	shower	<u>5-7 w/gusts up to 16</u>	<u>75</u>
<u>1520</u>	<u>15</u>	clear	patchy	overcast	drizzle	shower	<u>5-8</u>	<u>66</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>White Sulphur like Becker's</i>		
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor NK

Segment # Page 55 + 56

Date: 23/4/20

Comments: 5th most abn. most common species found in localities, 2 birds: 1st Pl. + 1st 2nd Pl. (Spring); Saw 1 in 1st locality - foraging, kill trapping + mating; Chalcids located E. close to 5th + 6th @ top of hill

Plant Communities and Habitat Information:

Host Plants Present:

Nectar Plants Present: *Eriogonum*, *Dich. cary.*, *Helian.*, *Gnaph.*, *Thur. parv.*, *Er. sic.*, *Sal. radica.*, *Malva*, *Viola*, *Pier. cune.*, *Sal. glauc.*, *Lot. scop.*, *As. unif.*, *Pan. nigr.*, *Camph.*, *Passiflora*, *Sed. gal.*, *Chen. can.*, *Thlas. per.*, *Malva*, *Impatiens*, *Pentstemon*, *Chamaecrista*, *Abies*, *Bella*, *Clay. pop.*, *Mim. leuc.*, *Tidy Tips*, *Corn. mona.*, *Cud. sown.*

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

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Quino Checkerspot General Form

Adult Survey

Location Maps 70, 75, 77 Survey Segment _____
 Surveyor UK Date 14-May-10 Survey Week Number 3
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start <u>0900</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>1-3</u>	<u>61 (Air-68)</u>
<u>1056</u>	<u>1</u>	<u>clear</u> patchy overcast drizzle shower	<u>1-3 gusts up to 7</u>	<u>79 (Air-79)</u>
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop <u>1511</u>	<u>25</u>	<u>clear</u> patchy overcast drizzle shower	<u>5-7 gusts up to 11</u>	<u>85 (Air-81)</u>

Habitat onsite (circle as applicable): hillsides, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources. mostly

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)	<u>1</u>	
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)	<u>1</u>		<i>Everes amyntula</i> (Western Tailed Blue)	<u>1</u>	
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)	<u>Many</u>	
<i>Nymphalis antiana</i> (Mourning Cloak)	<u>1</u>		<i>Apodemia mormo</i> (Mormon Metalmark)	<u>Many</u>	<u> </u>
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	<u> </u>	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	<u>1</u>		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>Many</u>	<u> </u>
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	<u>1</u>	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	<u>1</u>		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)	<u>1</u>		<i>Becker's white</i>	<u> </u>	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>White sp.</i>	<u> </u>	
Lycaenidae (Hairstreaks)			<i>Ch. Sister</i>	<u>1</u>	
<i>Atlides halesus</i> (Great Purple Hairstreak)			<i>Marine Blue</i>	<u>11</u>	
<i>Incisalia augustinus</i> (Western Brown Elf)			<i>Painly Sulphur</i>	<u>1</u>	
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	<u>Many</u>	<u> </u>			
<i>Celastrina ladon</i> (Echo Blue)		<u> </u>			

Surveyor NK Segment # Maps 70, 75, 77 Date: 14-May-10

Comments:

Plant Communities and Habitat Information:

Host Plants Present: Colinaria - Flowering & scattered within sunny area (Map 70 - Ed. La Posta Rd)
Col. rig. beg. to sprout

Flowering Nectar Plants Present: Camissonia, Er. cil., Las. cal., Phac. cil., Cnidos, Mustard, Lup. big, Pecton, Gilia,
Esch. cal., Cart. affinis, Sel. cal., Bro. walt., Baby Blue Eyes, Clay-pot., Yuc. whip, Lot. soap, Yuc. schiz,
Pearcy, Anisochloa, Min. big, Phlox, Ephedra, Woolly, Lupine, Phac. par., Oenothera, Whispering Bell,
Min. ana, Rock Lotus, A. tagala, Plagiol, Wild Pear, Woolly, Blue Curls, Dich. cup, Clematis, Soli,
par, Kechilla, Senecio, Tidy-tips, Sam. mex, Penstemon,

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location _____

Survey Segment MassSurveyor Laurie GormanDate 5-12-10Survey Week Number 3Survey Partner(s) John Green

Total Acres: _____ Portion Surveyed: _____

Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 0930	0%	(clear) patchy overcast drizzle shower	0-3 mph	66.5°F
1210	0%	(clear) patchy overcast drizzle shower	6-10 gusts to 14 mph hilltop near	68.9°F
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 1500	3%	(clear) patchy overcast drizzle shower	3-7 mph	73.8°F

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)	II		<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	III IIII IIII	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	I	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	I		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	III IIII	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	II		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Vanessa sp.</i>	II	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>California white</i>	I	
Lycaenidae (Hairstreaks)					
<i>Atides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia angustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	III 7 IIII				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor LG + JG

Segment # Maps 71-74

Date: 12-May-10

Comments:

Plant Communities and Habitat Information:

Host Plants Present: Collinsia ~~latifolia~~
concolor

Nectar Plants Present: erodium sp., mustard, cryptanthus sp., Plagiorhynchus sp., lupinus sp.,
AMS MEN, PEN HET, Comissaria sp., ERI CONF LAS CAL, LOT SCO, GIL CAP, AGO RIT
CA poppy, MIN AUR, CIR OCC, PHA PAR, PEN GEN, PIA ~~CONF~~ CIR, SOL PAR, YUC WHI
CHIA, CEON REN, LAS FOL

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location CNF/SDG Quino Survey Segment Pg. 71 → 71
 Surveyor _____ Date 2 May 10 Survey Week Number 3
 Survey Partner(s) Louise Gorman
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>07:40</u>	<u>0</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>0-4</u>	<u>56.2</u>
<u>12:10</u>	<u>trace</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>0-3</u>	<u>71.1</u>
<u>13:45</u>	<u>1</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>0-5</u>	<u>73.3</u>
<u>15:10</u>	<u>1</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>3-7</u>	<u>73.8</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)	<u>1</u>	
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	<u>35</u>	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady) <u>1</u>	<u>1</u>		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip) <u>1, III</u>	<u>4</u>	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Blue sp.</i> <u>HT 1</u>	<u>6</u>	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Orangetip sp.</i> <u>HT</u>	<u>5</u>	
Lycaenidae (Hairstreaks)			<i>Dusky wing sp.</i> <u>1</u>	<u>2</u>	
<i>Atlides halesus</i> (Great Purple Hairstreak)			<i>Swallowtail sp.</i> <u>1</u>	<u>1</u>	
<i>Incisalia augustinus</i> (Western Brown Elf)			<i>White sp.</i> <u>1</u>	<u>1</u>	
<i>Callophrys perplexa</i> (Perplexing Hairstreak) <u>II</u>	<u>2</u>				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopteryx lygdamus</i> (Southern Blue) <u>1</u>	<u>1</u>				
<i>Icarcia acmon</i> (Acmon Blue) <u>HT HT HT</u>	<u>14</u>				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor John Green

Segment # Pg 74 ~ 71

Date: 12 May 10

Comments: CORA SPTO ATFL BESP WSJA BHGR CATH TUVU HOFI CAIT PBGR
BEWR RWBL ACWO SAGS - Pg. 72
MOBO CAQU

COHA flyover @ E. end survey area pg. 74

Collared, Coyote,
W. W. Whiplash, W.F. Liz

Plant Communities and Habitat Information: Chaparral

Host Plants Present: Coltana

Nectar Plants Present: Plagio/Cryptanthus X2⁺, Lotus annual, Deerweed, Pectocarya, Larrea, Ceanothus
Blue Curr's, Red Man, Clematis, Calceolaria, Mimulus annual, Nightshade, Eriophyllum, Chamaeneris,
Sua cupi X2, Monardella, Erigeron, Phlox X2, Miger's Lettuce, Whisping Bell's, Paintbrush (red),
Dandelion X2, Godbould's, Scarlet Bugle, Penstemon sp. rubris, Lycopodium, Elderberry,
Lupine X4, Gilia X3, Golden Yucca, Miger's Lettuce.

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location MAPS HWY 76Survey Segment MAPS MS-002-004Surveyor M. WILCOXDate 21 MAY 10 Survey Week Number 4

Survey Partner(s) _____

Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 1020	0	clear	patchy	overcast	drizzle	shower	0-2 mph	60°F
1215	0	clear	patchy	overcast	drizzle	shower	1-3 mph	75°F
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop 1530	~5	clear	patchy	overcast	drizzle	shower	2-5 mph	77°F

Habitat onsite (circle as applicable) hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marira</i> (Marine Blue)		
<i>Euphydras editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydras chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Evers amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	24 (9)	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)	2		<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	1	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	24 (10)	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)	1	
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	3		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			WHITE SP.	2	
<i>Ochlodes agricola</i> (Rural Skipper)			BLUE SP.	7	
Lycaenidae (Hairstreaks)			CA SISTER	1	
<i>Atides halesus</i> (Great Purple Hairstreak)			VANESSA SP.		
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	11				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor MWSegment # Maps 2-4Date: 21 May 10

Comments:

BIRDS

MAMMAL

ACWO

SPERMOPHILUS BEECHLEYI

AMCR

BYLVILAGUS AUD.

RTHA

TUVU

LEGO

HOWR

CORA

WEST

BCSP

HERPS

CATO

PHRYNOSOMA COR.

CAQU

SCelop OCC.

CATH

SCelop ORC.

BHGR

UTA STANS

CASP

BUOR

Plant Communities and Habitat Information:

Host Plants Present: PLANTAGO, CASTILLEJANectar Plants Present: SAME AS PREVIOUS VISIT☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

Quino Checkerspot General Form

Adult Survey

Location MAD 5-8 Hwy 76 Survey Segment _____
 Surveyor MCGAUGH Date 5-19-76 Survey Week Number 4
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 0930	<u>0</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>0-8</u>	<u>60° F</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop 1430	<u>0</u>	<u>clear</u>	patchy	overcast	drizzle	shower		<u>50° F</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydras editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydras chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)	<u>1</u>		<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)	<u>1</u>	
<i>Nymphalis antiopa</i> (Mourning Cloak)	<u>1</u>		<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)	<u>1</u>		<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	<u>1</u>	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>11</u>	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	<u>2</u>	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis furalis</i> (Funereal Duskywing)	<u>1</u>		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)			<u>blue sp</u>	<u>5</u>	
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)			<u>Pyralis sp</u>	<u>1</u>	
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	<u>1</u>				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche hydamus</i> (Southern Blue)	<u>2</u>				
<i>Icaricia acmon</i> (Acmon Blue)	<u>6</u>				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor MCGAUGH Segment # Maps 5-8 Date: 5-26-10

Comments:

Plant Communities and Habitat Information:

CSS
chaparral
oak woodland

Host Plants Present:

Plantain # still good in patches
Cortileys

Nectar Plants Present:

abundant

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Maps 9-10 Survey Segment _____
 Surveyor NK Date 26 May 10 Survey Week Number 4
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>1114</u>	<u>2</u>	clear	patchy	overcast	drizzle	shower	<u>4-8 (gusts = 13)</u>	<u>73 (Air - 70)</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop <u>1316</u>	<u>5</u>	clear	patchy	overcast	drizzle	shower	<u>4-6 (gusts = 13)</u>	<u>80 (Air - 77)</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

mostly

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)	1	
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	Many	...
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	1	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Gorgon Copper</i>		
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	Many	...			
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor NK

Segment # Maps 9-10

Date: 26-May-10

Comments: Although winds are variable, butterfly activity remains ^{reasonably} detectable
- Acmon mating

Plant Communities and Habitat Information:

Host Plants Present: Cast. ex. (going to seed + still flowering)

Flowering Nectar Plants Present: Canisium, Er. ar., Crypt. Mistletoe, Clarkia, Lup. br., Chorizanthe, Eriog. conf., Penstemon, Sidalcea, Phac. el., Sam. mex., Man. vulgare, Delphinium, Trifolium, Phlox, Ach. cap., Sol. par., Gilia, Min. br., Las. cal., Clay, ^{Perk} ~~Perk~~, Wild Pear, Calo. spl., Flaggia, Ground Pink, Yarrow, Pappaweed, Red Maids

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location SAN DIEGO CO (LAKE HENSLEY AREA) Survey Segment MAP 9+10
 Surveyor COB CATHMAN Date 26 May 2010 Survey Week Number FOUR
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>8:30 AM</u>	<u>0</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>2-4 mph</u>	<u>70°</u>
<u>11:30 AM</u>	<u>0</u>	clear	patchy	overcast	drizzle	shower	<u>4-8</u>	<u>72°</u>
<u>12:30 PM</u>	<u>0</u>	clear	patchy	overcast	drizzle	shower	<u>3-9</u>	<u>73°</u>
<u>1:30 PM</u>	<u>0</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>3-9</u>	<u>75°</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marini</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)	<u>11</u>		<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>5</u>	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	<u>1</u>	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS: <u>L. varhoides</u>	<u>25</u>	
<i>Erynnis propertius</i> (Propertius Duskywing)			<u>L. gorgon</u>	<u>5</u>	
<i>Ochlodes agricola</i> (Rural Skipper)			<u>I. norticola</u>	<u>3</u>	
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	<u>11</u>				
<i>Celastrina ladon</i> (Echo Blue)	<u>11</u>				

Surveyor GREG CARTMAN

Segment # MP 9+10

Date: 26 May 10

Comments: - ~~WENT~~ CLOSED CANOPY
- VISITED ALONG RD'S WITH HOST
- NO BELLIED CATERPILLARS OBSERVED

- P. cornis near Castilleja (host)
- L. verticillata abundant near (Ramer)
- L. goodii (not bc con B. elongata)

Plant Communities and Habitat Information: ROPER TO SILVER DUNE

Host Plants Present: CASTILLEJA - ALONG ALONG ALONG RD'S
CORRYCANITUS - ALONG ALONG RD. (Z 118166)
- ~~LOST IN THE WOODS~~

Nectar Plants Present: YARROW, B. fasciculata, BESSICA, BLUE BLOSS

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.
4.
7.
10.

2.
5.
8.
11.

3.
6.
9.
12.

Quino Checkerspot General Form

Adult Survey

Location Maps 28-36 Survey Segment _____
 Surveyor NK Date 28 May 10 Survey Week Number 4
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 0910	0	clear patchy overcast drizzle shower	2-5	67 (Air-67)
1104	0	clear patchy overcast drizzle shower	1-4 (gusts ~9)	70 (Air-69)
1254	0	clear patchy overcast drizzle shower	4-7 (gusts ~10)	85 (Air-81)
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 1450	0	clear patchy overcast drizzle shower	3-6 (gusts ~10)	79 (Air-79)

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	1	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)	1		<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	1	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	Many	HT 11/...
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	2	HT
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	11	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	411		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			Common Sootywing	1	
<i>Ochlodes agricola</i> (Rural Skipper)			CA. Sister	1	
Lycaenidae (Hairstreaks)					
<i>Atides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	Many	HT 11/...			
<i>Celastrina ladon</i> (Echo Blue)	21	HT 11/...			

Surveyor

NK

Segment #

Maps 25, -36

Date:

20 May 10

Comments:

Plant Communities and Habitat Information:

Host Plants Present: *Callisiphia* @ top of steep slope & creek crossing

Cor. rig. - beg. to sprout

Plantago - drying up, beg. to go to seed, but mostly green lush

Cast. ex. - flowering & going to seed; lower elev. plants almost entirely to seed

Flowering Nectar Plants Present: *Populus*, *Milium*, *Sil. gal.*, *Meli. indica*, *Woolly Blue Curls*, *Crypt.*, *Lup. bic.*, *Esch. cal.*, *Mustard*, *Camissonia*, *Er. cit.*, *Phac. par.*, *lot. scop.*, *Erio. conf.*, *Pentstemon*, *Trifolium*, *Yucca whipplei*, *Clematis*, *Cast. off.*, *Baker Blue Eyes*, *Clarkia*, *Mim. aur.*, *Phac. elii*, *Lonicera*, *Sonch. oler.*, *Wild Pea*, *Phlox*, *Syn. bel.*, *Dich. cap.*, *Delphinium*, *Mim. big.*, *Anagallis*, *Gnaph. bic.*, *Cirsium*, *Plagi.*, *Erigeron*, *Stinging Lupine*, *Leon. leuco.*, *Sidalcea*, *Mim. brev.*, *Sal. colu.*, *Cutis*, *Yucca schottii*, *Ad. fasc.*, *Helianthemum*, *Cabo. sp.*, *man. vulgare*, *Pect.*, *Red Maids*, *Helianthus*.

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Rob Fletcher Canyon Peak Survey Segment Maps 30-33
 Surveyor Lauree Gorman Date 5/20/16 Survey Week Number 4
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start <u>0920</u>	<u>0%</u>	<u>clear</u> patchy overcast drizzle shower	<u>3-5 mph</u>	<u>72°F</u>
<u>1045</u>	<u>0%</u>	<u>clear</u> patchy overcast drizzle shower	<u>5-9</u>	<u>68.6°</u>
<u>1200</u>	<u>0%</u>	<u>clear</u> patchy overcast drizzle shower	<u>4-6</u>	<u>74.5°</u>
<u>1300</u>	<u>0%</u>	<u>clear</u> patchy overcast drizzle shower	<u>6-8</u>	<u>68.8°</u>
<u>1330</u>	<u>0%</u>	<u>clear</u> patchy overcast drizzle shower	<u>6-8</u>	<u>70°F</u>
		clear patchy overcast drizzle shower		
Stop		clear patchy overcast drizzle shower		

Habitat onsite (circle as applicable) hilltops, ridges, rock outcrops, open soil, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)	1	
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	1	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	11	1
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funealis</i> (Funereal Duskywing)	1		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mourning Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Blue se</i>	111	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Vanessa sp.</i>	1	1
Lycenidae (Hairstreaks)			<i>Skipper sp.</i>	1	1
<i>Attilides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	1	1			
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche hydamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	111	1			
<i>Celastrina ladon</i> (Echo Blue)	111	111			

Maps 30-33

Surveyor

Rob Retcher

Segment #

Cayamala Peak Date: 5/20/60

Comments:

Plant Communities and Habitat Information:

Fire recovering chaparral

Host Plants Present:

COTR16

Nectar Plants Present:

Eradiun sp. Cryptantha sp. Pterisidanthus sp. Camissonia sp.
 HIZIAL SALSON HELGILA CLELIG PHAPAR NEMMEN
 MATMAC ERILON MIMCLE LOTSEL PENSPER LINDIL
 HESLMI TRIPAR SISREL HELSLO AMSMEN LIN FLO
 LUPHUR NEAFOL CEALON DILLAP LUPREL trifolium sp. Linanthus sp.

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Maps 40-44 Survey Segment _____
 Surveyor N. Marshall Date 5/21/10 Survey Week Number 4
 Survey Partner(s) N. Kimball
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 0903	0	(clear) patchy overcast drizzle shower	0 - 5 mph	64.5
		clear patchy overcast drizzle shower		
11:37	0	(clear) patchy overcast drizzle shower	8 - 10 (gusts 12)	74
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 13:37	0	(clear) patchy overcast drizzle shower	5 - 9 mph	81

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marira</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)	11		<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	11	1111
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	11	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pteridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	11	1111
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	11	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	1	1111	<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)	1				
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	1111	1111			
<i>Celastrina ladon</i> (Echo Blue)	1111	1111			

Surveyor NMSegment # Plots 40-44Date: 21-May-10

Comments:

Plant Communities and Habitat Information:

Host Plants Present: Plantago ovata, CAEX

Nectar Plants Present: LAVE, ERCI, Crypt. sp., HIEN, Camiss. sp., ERFA, PHPA, DICA, LUKE
HYGL, ERGO, CACA, TRLA, LOSC, ADFA, SIGA, MIAU, PESP, SOPA, MIBR, YUWH, MICL
MIER, LUBI, Eriastrum sp., MAVU, PECE, CASP, GNBI, ERBO, CAAF, PHCI, Gilia sp., Vinca sp.
ANAR, CLPU, NAHA, CHPR

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Maps 40-44 Survey Segment _____
 Surveyor NK Date 21-May-10 Survey Week Number 4
 Survey Partner(s) NM
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 0855	0	clear patchy overcast drizzle shower	1-4	69 (Air - 67)
1137	0	clear patchy overcast drizzle shower	8-10 (Gusts = 12)	74 (Air - 70)
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 1337	0	clear patchy overcast drizzle shower	5-9	81 (Air - 71)

Habitat onsite (circle as applicable): hills, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marix</i> (Marine Blue)		
<i>Euphydras editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydras chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	1	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	1	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	1	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	11		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Marine Blue</i>	1	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Ch. Sister</i>	1	
Lycaenidae (Hairstreaks)					
<i>Atides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche hygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor

NK

Segment # Maps 41-44

Date: 21-May-10

Comments: Rabbits in large #s (newly emerged, fattened/ad, ♂, ♀, gravid ♀, mating, weaning)

Plant Communities and Habitat Information:

Host Plants Present: Cord. nig. @ top of hill adj. to F8

Evening Nectar Plants Present: Mustard, Phlox, Choking, lot's soap, Eris. conf., Yucc. whip., Er. cico, En'gonum, Lup. bic., Crypt., Dich. cap., Sidalcea, P. apple wood, Sig. lat., Woolly, Blue Girls Ad. face., Sol. passy, Galia, Comatium, Pagia, Mas. vulgaris,

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Buckner Springs / Jacumba (Golden Acorn Casino exit) Survey Segment Maps 71-74
 Surveyor Laurie Gorman Date 5-19-10 Survey Week Number 4
 Survey Partner(s) Nicole Kimball
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 0900	0%	clear patchy overcast drizzle shower	0-4 mph	64.4°F
1142	0%	clear patchy overcast drizzle shower	1-3 mph	88.0°F
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 1419	0%	clear patchy overcast drizzle shower	3-8 mph	86.0°F

Habitat onsite (circle as applicable): hillsides, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marira</i> (Marine Blue)	11	
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)	111		<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	111111	111
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		1111
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	1111	111
<i>Danaus gilippus</i> (Queen)			<i>Pteris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	1	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	111		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mourning Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>California tortoiseshell</i>	1	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Vanessa sp.</i>	11	
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icaricia acmon</i> (Acmon Blue)	111111	111111			
<i>Celastrina ladon</i> (Echo Blue)					

Quino Checkerspot General Form

Adult Survey

Location MMS 49+50 Survey Segment _____
 Surveyor N. Moorhead, L. Gorman Date 4/30/2010 Survey Week Number 4
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 11:45	~20	clear	patchy	overcast	drizzle	shower	0-1 mph	68.7
12:35	~15	clear	patchy	overcast	drizzle	shower	6-11 mph	64.0
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop 13:45	~15	clear	patchy	overcast	drizzle	shower	1-6 mph	70.3

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	1	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	111		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	1	111
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	11	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	1		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)	1		OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Erynnis</i> sp.	1	
<i>Ochlodes agricola</i> (Rural Skipper)			UnId'd Blue	1	
Lycaenidae (Hairstreaks)					
<i>Atilides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)	11				
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor NM & LGSegment # Map 49 + 50Date: 30-Apr-10

Comments:

Plant Communities and Habitat Information:

Chamise / Southern Mixed Chaparral

Host Plants Present:

Castilleja exertsa~~Casti~~Lupinus sp.Keckiella ant.

Nectar Plants Present:

Gutierrezia sp., Dichelostemma, Calystegia (W. bindweed),
Erodium cicutarium, Allium sp., Lotus sp., Hirschfeldia incana, Scarlet pimpernell,
Eriodictyon crassifolium, Marah macrocarpa, Cryptantha sp., Lasthenia californica, Yucca whipplei,
Ceanothus leucodermis, Melilotus indica, Phacelia parryi, Rhamnus crocea, Trichostema parishii,
Lathyrus vestitus, Solanum parishii, Scrophularia cal., Rhus ovata, Lupinus bicolor
☐ Quino Sighting Salvia columbiana Date: Silene gallica GPS Location: Lotus scoparius

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Barrel Lake N. - Map 51 Survey Segment TL625
 Surveyor Bob Plummer - CG Date 4/30/16 Survey Week Number _____
 Survey Partner(s) Nicole K. Ball - AHC
 Total Acres: _____ Portion Surveyed: 50105 571433 - 571440 Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 1018	25%	clear	patchy	overcast	drizzle	shower	2-3 mph	58.5° (in CLOW)
1045	25	clear	patchy	overcast	drizzle	shower	3-4	60.3°
1145	20	clear	patchy	overcast	drizzle	shower	4-6	63.4°
1215	20	clear	patchy	overcast	drizzle	shower	4-6	66°
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)	1	-	<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	1	-	Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	3	1
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	1	1
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	1	-
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funealis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Ben's Metal Mark</i>	3	2
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	3	2			
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor

Robb Fletcher

Segment #

Map 51
TL 625

Date:

4/30/10

Comments: Plenty of host plants scattered in small to medium patches along alignment. All PLAEKE observed is long senesced. Majority of CASEXE observed is setting seed and rapidly drying out. All LOTUG is just beginning to come up.

There are some decent patches of ALB habitat but it appears the season is well advanced in this area with dry to drying host plants and lots of non-native grasses & weeds.

Plant Communities and Habitat Information:

Fireweaving CSS/Chap mix at CLOW segments in drainages. Some open ERICACEAE scrub mixed in. Some open habitat but majority of alignment only AR is open.

Host Plants Present:

CASEXE, PLAEKE, LOTUG

Nectar Plants Present:

Erodium sp., Lycopodium sp., PLAGIOCHLOA sp., CHRISANTHEMUM sp., HIRIN, DICLAD, STOMAL, GILANG, CASEXE, LUPBIL, LOTSTR, SOLXAN, LOTSCO, ERICON, SALLOL, MIMBRE, PHAPAR, ERICRA, GNA CAL, KHYOVA, PHABRA, KEKANT, CEALEU, TRICAN, LASAL, MATMAL, CALMAL

☐ Quino Sighting —

Date:

GPS Location:

Photographs Taken: 2

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

data set 1 of 2
for day

Adult Survey

Location Mans 52, 43, 44

Survey Segment _____

Surveyor N. Moorhatch, L. GormanDate 5/06/10Survey Week Number 9-52 + 2-43+44

Survey Partner(s) _____

Total Acres: _____

Portion Surveyed: _____

Elevation: Max _____

Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>0832</u>	<u>0</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>0-1</u>	<u>65</u>
		clear	patchy	overcast	drizzle	shower		<u>8</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop <u>1430</u>	<u>0</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>0-6</u>	<u>80</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes mariz</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Evers amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark) <u>HH</u>	<u>1</u>	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip) <u>HH</u>	<u>1</u>	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>unidentified Duskywing</i>	<u>1</u>	
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elf)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icaricia acmon</i> (Acmon Blue) <u>HH HH HH HH HH HH HH HH</u>					
<i>Celastrina ladon</i> (Echo Blue) <u>1</u>					

Surveyor LG, NM

Segment # Maps 52, 43-44

Date: 06-May-10

Comments:

Plant Communities and Habitat Information:

Host Plants Present: Castilleja exserta

Nectar Plants Present: Lupinus bicolor, Lasthenia cal., "Tidy-tips", Erodium cicutarium, Erodium butrys, Sisymbrium sp., Delphinium parryi, Salvia columbariae, Yucca whipplei, Dichelostemma capitatum, Phacelia cicu., Clarkia pasp., Cryptantha sp., Melilotus indica, Lotus sp., Penstemon centranthi, Camissonia sp., Heliotropium curras, Plagiobothrys sp., Peony, Rock pea, Lupinus sp., Scarlet pimpernell, Silene gallica, Gnaphalium sp., Claytonia perfoliata, Sanicula sp., Sidalcea malva

☐ **Quino Sighting** Phacelia parryi **Date:** Amargosa mesa **GPS Location:** Castilleja (red), Trichostema parish

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location _____ Survey Segment Map 52
 Surveyor Laurie Gorman Date 5-6-10 Survey Week Number 4
 Survey Partner(s) Nate Moorhatch
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start <u>0832</u>	<u>0%</u>	<u>clear</u> patchy overcast drizzle shower	<u>0-1 mph</u>	<u>65°F</u>
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop <u>1430</u>	<u>0%</u>	<u>clear</u> patchy overcast drizzle shower	<u>0-6 mph</u>	<u>80°F</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydras editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydras chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	1	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	1	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			Gortyna		
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor

LG

Segment #

Map 52

Date:

06 May 10

Comments:

Plant Communities and Habitat Information:

Host Plants Present: *Castilleja exerta*

Nectar Plants Present: Tidy tips, *Lupinus bicolor*, *Lesqueria californica*, mustard, *Phacelia distans*, *Erodium* sp., *Penstemon confertifolius*, *Leckia antirrhinoides*, *Cryptantha* sp., *Chaenactis artemisiifolia*, *Phacelia parryi*, *Mirabilis laevis*, *Lotus scoparius*, *Calystegia macrostegia*, *Camissonia* sp., *Chia*, *Delphinium parryi*, CA poppy, *Eriophyllum confertiflorum*, *Aderostoma fasciculatum*, *Dichelostemma capitatum*, *Chaenactis glabriuscula*

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.

2.

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Quino Checkerspot General Form

Adult Survey

Location Map 54 Survey Segment _____
 Surveyor NR Date 30-Apr-12 Survey Week Number 4
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 1025	10	(clear) patchy overcast drizzle shower	2-5	61 (Ar-58)
		clear patchy overcast drizzle shower		69 Ar
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 1311	15	(clear) patchy overcast drizzle shower	4-6	77 (Ar-70)

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marira</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antionna</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor NC

Segment # Map 54

Date: 30-Apr-13

Comments:

1st survey day - 45 birds; 1st in skil feeding; scattered
moist soil

Plant Communities and Habitat Information:

Host Plants Present:

Nectar Plants Present:

Croton, Scaevola, Mimulus, Petalostemum, Verbena, Coriaria, Calceolaria,
Epipactis, Lonicera, Thymus, Salvia, Eriogonum, Eriogonum, Eriogonum, Eriogonum,
Leucis, Lonicera, Thymus, Salvia, Eriogonum, Eriogonum, Eriogonum, Eriogonum,

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Buckner Springs / Jacumba (Golden Acorn Casino exit) Survey Segment Maps 71-74
 Surveyor Laurie Gorman Date 5-19-10 Survey Week Number 4
 Survey Partner(s) Nicole Kimball
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 0900	0%	clear patchy overcast drizzle shower	0-4 mph	64.4°F
1142	0%	clear patchy overcast drizzle shower	1-3 mph	68.0°F
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 1419	0%	clear patchy overcast drizzle shower	3-8 mph	86.0°F

Habitat onsite (circle as applicable): hillsides, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)	11	
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)	11		<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	11	11
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		11
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	11	11
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	1	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis furcatalis</i> (Funereal Duskywing)	11		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS?		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>California tortoiseshell</i>	1	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Vanessa sp.</i>	11	
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	11	11			
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor L. GormanSegment # Maps 71-74Date: 5-19-10

Comments:

Plant Communities and Habitat Information:

Host Plants Present: Collinsia concolor

Nectar Plants Present: PEN SPE cryptantha sp., Erodium sp., Camissonia sp., LOT SCO,
mustard, ERI CON, TRI PAR, AMS MEN, GIL CAP, LAS CAL, PHA DIS, CAIA,
PEN CEN, PHA PAR, Mimulus sp., ANA ARV, YUC WHI, SOL XAN, LUP BIC, DIC CHR
PHA BRA, Platybothrys sp., YUC SICH

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location BUCKMAN SPRINGSSurvey Segment MAPS US-075-069Surveyor M. WILCOXDate 17 MAY 10 Survey Week Number 4Survey Partner(s) NICOLE KIMBAL

Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 1030	100	clear	patchy	overcast	drizzle	shower	1-3.5	62°F-70°F (END)
1200	100	clear	patchy	overcast	drizzle	shower	2-4	77°F
1355	80	clear	patchy	overcast	drizzle	shower	2-4	81°F
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources, COLNSIA, TRAILS

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)	1	
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)	1		<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	1	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	1	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	2	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	2		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mourning Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia angustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	1				
<i>Celastrina ladon</i> (Echo Blue)	1				

Surveyor M. WILCOX

Segment # Maps 70-77

Date: 17 May 10

Comments:

Plant Communities and Habitat Information:

Host Plants Present: colusa cov.

ANAGALUS ARVEN, GILIA SP.,

ESCHOLTZIA CA, COMISSONIA (SUN CUPS) CHLA, ERIOPHOLUM CONF.,

Nectar Plants Present: MUSTARDS, CRYPTANTHIA, YUCCA WHIP, CASTILLEJA affinis?

YELLOW COMPOSITES PLACELLA, PECTOCARYA, ERADIVUM, LUPINUS Bicolor

VARWOL, BLUE CURUS, LUPINUS SP., LOTUS SCUP, SM. YELL/OR LOTUS,

KECKIEUA ANF, CALOCHORTUS SDC, ASTRAGALUS SP., CONOTRIVUS LEUC?

SAMB. MEX., CIRCUM SP., PLAGIOBOTHRIUS SP., PENSTAMON SP., EASTHENA,

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Map 74-71 Survey Segment _____
 Surveyor NR Date 7-May-10 Survey Week Number 4
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start <u>0818</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>0-1</u>	<u>67 (Air-G)</u>
<u>1142</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>1-3</u>	<u>88 (Air-G)</u>
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop <u>1419</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower	<u>3-8</u>	<u>88.86</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources. mostly

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marira</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	<u>Many</u>	<u>HT</u>
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	<u>1</u>	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	<u>11</u>		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>Many</u>	<u>HT</u>
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	<u>11</u>	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	<u>HT</u>	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	<u>HT</u>		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)	<u>11</u>		OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Becker's Wh.</i>	<u>1</u>	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Marine Bl.</i>	<u>11</u>	
Lycaenidae (Hairstreaks)					
<i>Allides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopteryx lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	<u>Many</u>	<u>HT</u>			
<i>Celastrina ladon</i> (Echo Blue)	<u>11</u>				

Surveyor NKSegment # Map 74-71Date: 19 May -10

Comments: Chippewal - Desert Transition; Dom. $\frac{1}{2}$ Ad. fawn, w/ Sooty, red shank, Art. tril, Quercus, Cylindropuntia, Yucca, Ephedra, Erigeron, Clematis

Plant Communities and Habitat Information:

Host Plants Present: Collinsia, Con. rig. beg. to sprout, Art. coul. is flowering (very few & as red)

Flowering Neectar Plants Present: Woolly Blue Curls, Er. cin., Crypt., Penstemon, Lot. scapy, Camissonia, Senecio, Erig. conf., Wild Pear, Plagios, Woolly Lupine, Gilia, Mustard, Plecto, Anisindia, Phac. cin., Yuc. schuy, Sol. columb., Phlox, Tan. cal., Delphinium, Mim. big., Clay. perf., Sol. par., Phac. par., Mas. macro., Yuc. adsp., Tidy-Tips, Sam. mex., Lup. bic., Mim. aur., Rock Lotus, Chaenactis, Cirsium, Erigeron, Mim. brev., Chorizanthe, Ephedra, Whispering Bells, Cast. affinis, Can. leuco.

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

800

706

6207

977

753

694

Quino Checkerspot General Form

Adult Survey

Location Map 77-70 Survey Segment _____
 Surveyor NK Date 17-May-10 Survey Week Number 4
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>1022</u>	<u>100</u>	clear	patchy	<u>overcast</u>	drizzle	shower	<u>0-2</u>	<u>76 (Air-NK)</u>
<u>1159</u>	<u>100</u>	clear	patchy	<u>overcast</u>	drizzle	shower	<u>4-7</u>	<u>83 (Air-70)</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
<u>thin, wispy clouds</u>		clear	patchy	overcast	drizzle	shower		
Stop <u>1355</u>	<u>85</u>	clear	patchy	<u>overcast</u>	drizzle	shower	<u>2-4</u>	<u>81 (Air-73)</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources. mostly

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marira</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	<u>1</u>	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>1</u>	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	<u>1</u>	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<u>Marine Blue</u>	<u>1</u>	
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Allides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	<u>1</u>				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor

NK

Segment #

Map 77-70

Date:

17-May10

Comments:

Plant Communities and Habitat Information:

Host Plants Present:

Willowia, Ants courtin, Lehong Rd near pole 44/65

Nectar Plants Present:

Flowering: *Penstemon*, *Er. ci.*, *Camissonia*, *Cact. affinis*, *Yuc. whip.*, *Crypt.*, *Mustard*, *Pecto.*, *Eriogonum*, *Dich. cap.*, *Popp.*, *Lat. cal.*, *Lup. bic.*, *Sam. mex.*, *Wild pea*, *Lomatium*, *Yuc. schi.*, *Gilia*, *Allium*, *Tidy-tips*, *Phac. sic.*, *Astragalus*, *Clarkia*, *Sidalcea*, *Woolly Blue Curls*, *Amorpha*, *Lutz Scop.*, *Cirsium*, *Ephedra*, *Eriogonum*, *Min. aus.*, *Phac. par.*, *Clay*, *Ref.*, *Eriogonum*, *Chenopodium*, *Sed. californ.*, *Chorizanthe*, *Ad. fasc.*, *Min. brev.*, *Baby Blue Eyes*, *Rock Lotus*, *Whispering Bells*, *Pedon*, *Woolly Lupine*, *Phac. brae.*

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.

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Quino Checkerspot General Form

Adult Survey

Location WEATHERED COT LAKE MONSIEUR Survey Segment _____
 Surveyor GREEN MCGAUGH Date 5-17-10 Survey Week Number _____
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
10:50 → 11:30 AM	100% *	clear	patchy	overcast	drizzle	shower	3-8 MPH	61-64°F
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funealis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor _____ Segment # _____ Date: _____

Comments:

Plant Communities and Habitat Information:

Host Plants Present:

Nectar Plants Present:

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location CNF - Hiway 76 Survey Segment Maps 2-4
 Surveyor Steve Myers/Nathan Moorhatch Date 26 May 10 Survey Week Number 5
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 1050	0	clear	patchy	overcast	drizzle	shower	1-4	63°
1200	0	clear	patchy	overcast	drizzle	shower	2-5	65°
1315	0	clear	patchy	overcast	drizzle	shower	2-6	70°
1400	<10	clear	patchy	overcast	drizzle	shower	4-8	69°
1440	<10	clear	patchy	overcast	drizzle	shower	5-12 gusts to 16	68°
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marix</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)	1		<i>Apodemia mormo</i> (Mormon Metalmark)	2	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)	5		<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)	1		<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	4	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	6	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)	1	
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	2	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	4		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>California Dogface</i>	1	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Dainty Sulphur</i>	1	
Lycaenidae (Hairstreaks)			<i>white sp.</i>	4	
<i>Atlides halesus</i> (Great Purple Hairstreak)			<i>blue sp.</i>	10	
<i>Incisalia augustinus</i> (Western Brown Elfin)			<i>Erynnis sp.</i>	2	
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	49				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor Myers/Moorhatch

Segment # Maps 2-5

Date: 26 May 10

Comments:

Plant Communities and Habitat Information:

Host Plants Present: Castilleja exserta

Nectar Plants Present: ERBO, HIIN, Rose clover, LOAR, CLPF, ERCO, PHPA, CLPU, CASP, SAAP, DICA, LUHI, ADEA, YUWH, MIAU, GNBI, ESCA, NIGL, ASCA, SIGA, LAVE, LUBI, SYBE, RASA, PLLA, VIUT, SALUME, Madia sp., PHCI, MAVU, SIMA, MEAL, LOSE, CRCA, Camissonia sp., MIBR

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Maps 9-10 Survey Segment _____
 Surveyor NK Date 28 May 10 Survey Week Number 5
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 0915	15	clear → patchy overcast drizzle shower	1-4 (gusts)	60 (Air - 59)
1040	15	clear → patchy overcast drizzle shower	0-4 (gusts = 13)	65 (Air - 60)
1151	20	clear → patchy overcast drizzle shower	0-7 (gusts = 11)	72 (Air - 66)
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 1350	85	clear → patchy overcast drizzle shower	0-7 (gusts = 14)	77 (Air - 71)

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Oxistylea, Cordylanthus, Antirrhinum, nectar sources. mostly

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes narina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Evers amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	1111	
<i>Basilaria lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)	11		<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	1	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	1		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	Many	111111...
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	1	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	1		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Blue sp.</i>	1	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Gorgan Copper</i>	11	
Lycaenidae (Hairstreaks)			<i>Great Copper</i>	11	
<i>Atlides halesus</i> (Great Purple Hairstreak)			<i>White sp.</i>	1	
<i>Incisalia augustinus</i> (Western Brown Elfin)			<i>Dainty Sulphur</i>	1	
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	Many	111111...			
<i>Celastrina ladon</i> (Echo Blue)	1				

Surveyor NKSegment # Maps 9-10Date: 28 May 10

Comments: mostly sunny, minimal cloud cover; began survey @ 60° ground temp,
as winds were 24 mph & 2 metal marks were obs. while taking temp. reading

Plant Communities and Habitat Information:

Host Plants Present: Cact. ex. - Flowering & go to seed
Collinsia

Flowering Nectar Plants Present: End. conf., Colo. spl., Mustard, Cuscut., Trifolium, Eriogonum, Er. ar., Phlox,
Delphinium, Clarkia, Camissonia, Penstemon, Mim. aur., Phac. cis., Chaizanthi, lot. scop., Phac.
par., Linaria, Dich. cap., Sal. colum., Graph. bic., Clay. perf., Mim. brev., Sam. mex., Lup. bic., P. apple, Sida,
cen., Mat. vulg., Zinnia, Ground Pink, Yarrow, Gilia, Cean. leuca, Bac. sili., Tamarix, Ana. aur.,
Chamaesyce, Las. cal.,

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Maps 28-36 Survey Segment _____
 Surveyor N. Moorhatch, N. Kimball Date 5/25/10 Survey Week Number 5
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 10:21	0	(clear) patchy overcast drizzle shower	0-4	60°
		clear patchy overcast drizzle shower		
12:23	0	(clear) patchy overcast drizzle shower	2-4	66°
	40	clear (patchy) overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 15:39	40	clear (patchy) overcast drizzle shower	0-2	77°

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marira</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides myliuta</i> (Mylitta Crescent)	1		<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)	1		<i>Papilio eurymedon</i> (Pale Swallowtail)	1	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	1	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	1		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	1111	1111 11
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	11	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	1111		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Hedgerow Hairstreak</i>	11	
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	many ← 1111 111				
<i>Celastrina ladon</i> (Echo Blue)	1111 111				

Surveyor NM, NKSegment # Maps 28-36Date: 25 May 10

Comments:

Plant Communities and Habitat Information:

Host Plants Present: Plantago pat., Cordylanthus rigidus, Collinsia concolor, Collinsia heterophylla, Castilleja exserta, Plantago ovata, Antirrhinum coulter.

Nectar Plants Present: Pectocarya sp. CAAF, AMME, LUEX, ASCA, CHSU, LUBE, HIIN, ESCA, ERCI, YAWH, TRLA, ADFA, Crypt. sp., PEHE, PHPA, HYGL, PHCI, ERGO, LOSC, CLEM, Camissonia sp., TRWI, MIAU, CASP, ANAR, Plagio. sp., CELE, SYBE, CLPU, Lonicera, NEME, MEIN, BASA, DICA, Vinca sp., Chap. Pea, Eriog. Fasci., SAMEX, ERBO, Lonotium sp., ROCA, CLDE, MIPA, LIPA, Erinsrum sp., HESC, MIFR, MIBR, TAAR, ACMI, SILA, LUHI, SIGA, PECE, Sanicula sp.

☐ Quino Sighting SIMA, CH Date: PLLA GPS Location: GAAN, SACO

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Cuyamaca Peak Survey Segment Maps 30-33
 Surveyor Laura Gorman Date 5-25-10 Survey Week Number 5
 Survey Partner(s) Greg Chatman
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 0950	0%	clear	patchy	overcast	drizzle	shower	1-3 mph	60°F
1136	0%	clear	patchy	overcast	drizzle	shower	2-5 mph	62°F
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop 1402	0%	clear	patchy	overcast	drizzle	shower		62°F

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes mariza</i> (Marine Blue)	1	
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	1	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)	III	III			
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	III				
<i>Celastrina ladon</i> (Echo Blue)	III				

Surveyor LAUREL GOODMAN
GRETTA CHATMAN +

Segment # MAPS 30-33

Date: 5-25-10

Comments:

- VERY STEEP SECTION
- VISITED SIGNAL RANGER + HILLTOP
- NO BELLING COLONIES OBSERVED

- I. angustimanus not observed
- C. argutus - using Crematulus abundant

Plant Communities and Habitat Information:

PATCH TO RAINY ONE

Host Plants Present:

CORAL LANTANA

- MAPS HAVE BEEN UPDATED

Nectar Plants Present:

mustard, erodium sp., Camissonia sp., ... see prior data sheet from last week

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location VIGJAS Survey Segment MAPS 37-38
 Surveyor M. WILLCOX Date 13 MAY 10 Survey Week Number 5
 Survey Partner(s) C. McGAUGH
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 1040	10	clear	(patchy)	overcast	drizzle	shower	0-3mph	71°F
1445	0	(clear)	patchy	overcast	drizzle	shower	0-3mph	80°F
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable) hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes mariza</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)	1		<i>Apodemia mormo</i> (Mormon Metalmark)	15	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	21	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	1	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	2	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	5		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			BLUE SP.	13	
<i>Ochlodes agricola</i> (Rural Skipper)			ERYNNIS SP.	4	
Lycaenidae (Hairstreaks)			WHITE SP.	1	
<i>Atides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)	1				
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopteryx lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	8				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor MW + CM

Segment # Maps 37-38

Date: 13 May 10

Comments:

Plant Communities and Habitat Information:

Host Plants Present: CASTILLEJA EX.

Nectar Plants Present: SAME AS PREVIOUS VISIT.

☐ **Quino Sighting**

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location PLSxanso Survey Segment Map 39, 40, 41
 Surveyor Los Pichas Date 5/25/10 Survey Week Number 5
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: TL 6025 Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start 1000	0%	clear	patchy	overcast	drizzle	shower	2-4 mph	65.6°F
1200	0%	clear	patchy	overcast	drizzle	shower	2-4 mph	66.9°F
1400	0%	clear	patchy	overcast	drizzle	shower	2-4	66°F
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)	11	
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)	11/11/11	✓	<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		11
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	1	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	11	1
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycenidae (Hairstreaks)					
<i>Atalides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia angustinus</i> (Western Brown Elfin)	1	1			
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopteryx hygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	11/11/11	11			
<i>Celastrina ladon</i> (Echo Blue)	11/11/11	11			

Surveyor

Rob Fletcher

Segment #

Maps 39, 40, 41
TL

Date:

5/25/16

Comments:

Plant Communities and Habitat Information:

Mixed Chamise Chaparral + Fire recovering
SAC

Host Plants Present:

COLR16, PLARE, CASEXE

Nectar Plants Present:

ERODIUM sp. CRYPTANTHUS sp., PLAGIOBATHYRUS sp., CAMISSONIA sp.
 HIRINC, HESWHI, LUPBIC, CASEXE, ERICON, UCOLIN, CHESTA, TRIPAR, SAMMEX,
 DILCAP, LOTSLD, CLAPHZ, MIMBRE, ADEPAS, PHACIC, ALHAE, MIMUE, DENZIG,
 ERIFAS, LUPHIR, PHAPAR, CALSPL, HELGRA, LOTARG, PEUSPE, MIMPRE, PENLEN,
 CAMCAL, LOTSTR, PLARE, SALAPI, CHIART, MIMAIR, GNACAL, CEALBU, SISBEL,
 SALLOL, SIDMAL, GILCAP, SOLKAN, GILANG, TRIDIANUS sp.

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location JAPATUL VALLEY Survey Segment MAPS 42, 43, 44
 Surveyor ROB FLETCHER Date 5/26/10 Survey Week Number 5
 Survey Partner(s) MAYA MAZON
 Total Acres: _____ Portion Surveyed: 72625 Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 1000	0	(clear) patchy overcast drizzle shower	1-3	66
1225	0	(clear) patchy overcast drizzle shower	2-4	70
1311	0	(clear) patchy overcast drizzle shower	2-4	74
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop		clear patchy overcast drizzle shower		

Habitat onsite (circle as applicable) hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)	1	1	<i>Apodemia mormo</i> (Mormon Metalmark) III	3	1
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail) II	2	2
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip) III III	8	2
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White) III III	11	5
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur) I	1	2
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing) IIII	4	2	<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia angustinus</i> (Western Brown Elf) II	2	2			
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue) III III III III	19	9			
<i>Celastrina ladon</i> (Echo Blue) II	2	1			

Maps 42-44

1. Kudo
Munwee

Surveyor ROB FLETCHER

Segment # TL 625

Date: 5/26/10

Comments: NECTAR PLANTS - UDOLYN, CAMPHR, HELIOPOLY, LOTSCIO, ADIFAS
ACHNIL, HELSCIO, SALCOL, MAR MAC, GILIA SPP., AMIS SPP, PHAPAR, MIMANR
CAMPIS, ERGFOL, ~~ERGFOL~~ EUCRYPTA SPP., PHADIS, CHLPAR, CHAGLA, CHOSTA
ERIDEN, MURVUL, ~~ERGFOL~~ YUCUAN, CALMAC, ASTRAGALUS SPP.
CALMAC, TRKIL, ASUCAL, CASTOL

(rebetec)

Plant Communities and Habitat Information:

OAK WOODLAND WITHIN URBAN LANDSCAPE, AND DISTURBED
GRASSLAND

Host Plants Present: CHETILLERA EXSEKTA, CORDALANTHUS RIGIDUS,

Nectar Plants Present: BLUE DICKS, DELPHINIUM HERBAUM, ERODIUM CICUTARIUM,
BRASSICA NIGRA, ~~GASCOBOW~~ SPLENDENS, ERODIUM BOTRYS, CRYPTANTHA,
CLARKIA DELICATA, CLARKIA PURPURA, GNAPHALUM CALIFORNICUM,
THACELIA CICUTARIUM, CALSPL, HYPOLA, ERICON, TRIPAR, RAFCAL, CIROXI, LOTSTR
PINDSP, SILGAR, ANAARY, DAUPAS, SOLXAN, MINBRE, COREPU, NAVHAM, INDIAN PAINTBROSH

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location MAPS 49-50 Survey Segment _____
 Surveyor MCGOUGH Date 5-6-10 Survey Week Number 5
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start <u>0925</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower		
<u>Wind, 0820 50°F</u>		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop <u>1130</u>	<u>0</u>	<u>clear</u> patchy overcast drizzle shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydras editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydras chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	<u>7</u>	
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	<u>2</u>	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	<u>1</u>		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)			<u>blue sp</u>	<u>5</u>	
Lycaenidae (Hairstreaks)			<u>Sulphur sp</u>	<u>6</u>	
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor MCGAUGH Segment # Maps 49+50 Date: 5-6-10

Comments:

Plant Communities and Habitat Information:

CHAPARRAL

Host Plants Present: CASTILLEJA

Nectar Plants Present: ABUNDANT

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location 1300 ft. 11-52 Survey Segment _____
 Surveyor NK Date 10/12/12 Survey Week Number 5 #5/12 - 12/12
 Survey Partner(s) RF
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>06:00</u>	<u>40</u>	clear	patchy	overcast	drizzle	shower	<u>3-5</u>	<u>66</u>
<u>12:00</u>	<u>30</u>	clear	patchy	overcast	drizzle	shower	<u>4-6</u>	<u>73</u>
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop <u>14:00</u>	<u>30</u>	clear	patchy	overcast	drizzle	shower	<u>3-5</u>	<u>70 (Air - 68)</u>

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marira</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycenidae (Hairstreaks)					
<i>Atides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor NK, RJ Segment # W-4, W-52, W-52 Date: October 1

Comments: Relatively easy, some obs. are present to make

95% going to seed

Plant Communities and Habitat Information:

Host Plants Present: growing up in

Nectar Plants Present: Catalpa, Jacaranda, Mimosa, Cupressus, etc.

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Rob Flecker Survey Segment Mapo 9450, W-52
 Surveyor Lyons Valley Date 10/10 Survey Week Number 6
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: Poles 57455-57441 Elevation: Max _____ Min _____
AND Dist. line by Barrett Manor Camp

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 1115	40%	clear patchy overcast drizzle shower	4-8 mph	64.5°
1215	50%	clear patchy overcast drizzle shower	6-9	64°
1315	30%	clear patchy overcast drizzle shower	4-8	74.9°
1415	30%	clear patchy overcast drizzle shower	5-10	72.7°
1430	25%	clear patchy overcast drizzle shower	6-8	68.0°
		clear patchy overcast drizzle shower		
Stop		clear patchy overcast drizzle shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marira</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Evers amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	11	2
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)	4	4
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	13	5
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)	2	-	Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	2	2	<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)					
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	25+	10			
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor

Rob Arner

Segment #

Maps ⁵¹ ~~48~~ 50, W-52
TL 625

Date:

5/10/10

Comments:

Plant Communities and Habitat Information:

Host Plants Present:

CASEKE, CORRIG, PLAREE

Nectar Plants Present:

~~MABAXA~~ ~~VERRE~~ ~~VELADE~~ ~~Erodium~~ ~~sp.~~ ~~Cryptantha~~ ~~sp.~~ ~~Physalanthus~~ ~~sp.~~
 Camissonia sp. HIRINC, DILLAP, LLA PUR, ETC CON, LIP BIL, EUCCEA, LOT SCO, SID MAC
 GILANG, CASEKE, TRIWIL, LOT STR, KYPGLA, MIMBRE, KKK ANT, SYLXAN, CAL SPL
 SALCAL, CAMCAL, HESLWH, PENSPE, KALLOVA, CAL MAC, LIP HIR, PHA PAR
 PHAGRA, GNACAL, TILAN, ALCHAE, ADEKAS, AMSMEN, MAC MAC, SAMMEX, LASLAL
 LAYPLA, PENCEN, MIRCAL, ESCAL, CHA ATE, UROLIN, ANT NUT

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Map 51, 41 Survey Segment _____
 Surveyor ME NIK Date 06-May-10 Survey Week Number 5 of #3 Map 41
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 0840	0	clear patchy overcast drizzle shower	2-1	60 (Air -61)
0951	0	clear patchy overcast drizzle shower	3-5	75 (Air -75)
1243	0	clear patchy overcast drizzle shower	3-6	80 (Air -75)
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 1325	0	clear patchy overcast drizzle shower	3-6	76 (Air -71)

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes mariza</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)	1		<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	1	1
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)	1		<i>Papilio eurymedon</i> (Pale Swallowtail)	1	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)	1	
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	1		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	1	1
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	1	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	1	1
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Blue sp.</i>	1	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>CA sister</i>	1	
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)	1				
<i>Glaucopteryx lydamus</i> (Southern Blue)					
<i>Icaricia acmon</i> (Acmon Blue)	1	1			
<i>Celastrina ladon</i> (Echo Blue)	1				

Surveyor NKSegment # Map 51, 41Date: 06-May-10

Comments:

Plant Communities and Habitat Information:

Host Plants Present: *Cast. ex.* (going to seed); almost all *P. or.* going to seed, sm. % have green stems;
Cord. rig. few + far between; *Ant. coult.* small patch

Flowering Nectar Plants Present: *Eri. crass.*, *Clay. perf.*, *Sidalcea*, *Lup. bic.*, *Mim. lewis.*, *Galium*, *Diels. cap.*, *Yucca whipplei*,
Eriod. cor. f., *Mustard Sil. gal.*, *Ceanothus*, *Sol. per.*, *Keckia*, *Crypt.*, *Penstemon*, *Sal. colum.*, *Er. cil.*,
Lot. scop., *Wild Rose*, *Stinging lupine*, *Cal. macis*, *Phac. p. or.*, *Chorizanthe*, *Lup. tracyi*, *Helianthemum*, *Gnaph. bic.*,
Clar. dol., *Helianthus*, *Leonardus*, *Woolly Blue Cholla*, *Yucca schottii*, *Allium*, *T. plant.*, *Ad. fasc.*, *Whispering Bells*,
Lantana, *Amorpha*, *C. lili.*, *Plagi.*, *Pectocarpus*

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Barnet Lake Survey Segment TL Map 54
 Surveyor Robert Date 5/22/10 Survey Week Number #5
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: 7005 571466 ~ 571459 Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky					Wind (range)	Temp (F)
Start <u>0830</u>	<u>67%</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>0-2 mph</u>	<u>65.7°F</u>
<u>1000</u>	<u>59% haze</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>2-4 mph</u>	<u>74.3°F</u>
<u>1100</u>	<u>59% haze</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>2-4 mph</u>	<u>72.4°F</u>
<u>1245</u>	<u>62% haze</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>3-6 mph</u>	<u>76.9°F</u>
<u>1330</u>	<u>59% haze</u>	<u>clear</u>	patchy	overcast	drizzle	shower	<u>3-6 mph</u>	<u>77.2°F</u>
		clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Blantaga, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed-Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)		
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)		
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erymnis funeralis</i> (Funereal Duskywing)			<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erymnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erymnis propertius</i> (Propertius Duskywing)			<i>Vanessa sp</i>		
<i>Ochlodes agricola</i> (Rural Skipper)					
Lycaenidae (Hairstreaks)					
<i>Atlides halesus</i> (Great Purple Hairstreak)					
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)					
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor

Rob Fletcher

Segment #

Map 54
JL 645

Date:

5/6/10

Comments: Fire following Chaparral. Before fire in 2007 looks VERY dense, now semi-open. Lots of fire followers present. Some different open patches on or near knittops w/ host plants present. Plants very stunted & rocky

Plant Communities and Habitat Information:

Fire following Chaparral

Host Plants Present:

CASEYE, CORRIG, PLABRE, COLCON

Nectar Plants Present:

ERODIUM sp., LINDANTHUS sp., PRASIDHMYN sp., COMISSONIA sp.,
HILINC, GNACAL, PENSPE, CALMAC, DICCAP, LOTARG, TRIWIL, ERICON, MALDEN,
SOLXAN, SALCOL, PHAPAR, MIMBRE, PHAGRA, LOTSTR, LOTSCO, HELWHI, LUPHAR,
ALLHAE, LAYPLA, COLCON, CASEYE, SIRMAL, MATMAC, ERICCA, CAMCAL, KILLOVA,
TRILAN, DICCHIE, HELSOD, HELGRA, GILANG, CALALB, ALLPEN, SISBEL, ESICAL, LUPBIL

☐ Quino Sighting

NO

Date:

GPS Location:

Photographs Taken:

NO

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

40531-4478-79

Quino Checkerspot General Form

Adult Survey

Location Maps 70-77 Survey Segment _____
 Surveyor UK Date 24-May-10 Survey Week Number 5
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 1030	1	<u>clear</u> patchy overcast drizzle shower	0-2	69 (Air-69) (quits = 7)
1158	0	<u>clear</u> patchy overcast drizzle shower	2-6 (quits = 8)	78 (Air-69)
1310	0	<u>clear</u> patchy overcast drizzle shower	6-8 (quits = 13)	79 (Air-69)
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 1602	0	<u>clear</u> patchy overcast drizzle shower	2-10 (quits = 14)	78 (Air-70)

Habitat onsite (circle as applicable): hillsides, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.
 mostly

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes mariza</i> (Marine Blue)		
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)	1		<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy-Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	1	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)	1		Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	many	many
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)		
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	1	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nictippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	111		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)	1		<i>White sp.</i>	1	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Gorgan Copper</i>	1	
Lycaenidae (Hairstreaks)			<i>Dainty Sulphur</i>	1	
<i>Atlides halesus</i> (Great Purple Hairstreak)			<i>Marid Blue</i>	1	
<i>Incisalia augustinus</i> (Western Brown Elfin)					
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	many	many			
<i>Celastrina ladon</i> (Echo Blue)	10				

Surveyor NKSegment # Maps 70-77Date: 24-May-16Comments: Majority of early annuals gone to seed-Map 75: cattle moved through area as ev. of fresh tracks, scat, & urine

Plant Communities and Habitat Information:

Host Plants Present: Collinsia - beg. to go to seed

Flowering Nectar Plants Present: Er. cic, Mustard, Camissonia, Lar. caly, Lup. bic, Lupt, Gilia, Eri. conf.,
Cast. affinis, Phacelia, Woolly Lupine, Astragalus, Yuc. whip, Chorizanthe, Yuc. Aschy, Sam. near, Lot. soap,
Whispering Bells, Esch. cal, Phlox, Pecten, Cirsium, Ephedra, Chaenactis, Sal. edum, Clay. perf, Eriogonum,
Phac. par, Ad. fasc, Mim. brev, Delphinium, Poppy, Reckia, Penstemon, calv. splen, Holly, Blue Curls,
Clarkia, Sol. par, Dich. cap, Rock Lotus, Scutellaria, Comarum, Allium, Tidy-Tips, Sidalcea

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Maps 71-74 Survey Segment _____
 Surveyor NK Date 30-May-10 Survey Week Number 5
 Survey Partner(s) M. Heath
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 0800	0	clear patchy overcast drizzle shower	4-9 (gusts = 11)	73 (Air - 71)
1005	0	clear patchy overcast drizzle shower	5-8 (gusts = 12)	76 (Air - 76)
1210	0	clear patchy overcast drizzle shower	1-2 (no gusts)	88 (Air - 87)
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 1345	0	clear patchy overcast drizzle shower	3-5 (no gusts)	86 (Air - 84)

Habitat onsite (circle as applicable): hills, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes mariza</i> (Marine Blue)	1	
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)	1		<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	11/11	
<i>Basilarchia lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)	1	
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)	11/11	
<i>Danaus gilippus</i> (Queen)			<i>Pteris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	11	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopetes ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	11/1	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered-Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	11/1		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Copper sp.</i>	1	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>square-spotted</i>	11	
Lycaenidae (Hairstreaks)			<i>white sp.</i>	1	
<i>Atlides halesus</i> (Great Purple Hairstreak)			<i>Blue sp.</i>	1	
<i>Incisalia augustinus</i> (Western Brown Elf)			<i>Gargen Copper</i>	11/1	
<i>Callophrys perplexa</i> (Perplexing Hairstreak)					
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icarcia acmon</i> (Acmon Blue)	many	11/11/11/11/11/11			
<i>Celastrina ladon</i> (Echo Blue)		11			

Surveyor NK & MHSegment # Maps 71-74Date: 30-May-10

Comments:

Plant Communities and Habitat Information:

Host Plants Present: Collinsia Flowering + going to seed

Flowering Nectar Plants Present: Lot scop., Penstemon, Pecto, Mustard, Er. cir., Crypt., Camissonia, Erio, conf., Gilia, Phac. par., Chorizanthe, Woolly Blue Cherts, Woolly luphe, Las. cal., Sol. cal., Phac. cir., Phlox, Delphinium, Sol. par., Yuc. schiz., Sam. mex., Mim. bies., Estragol, Eriogonum, Datura, Lup. bic., Amelanchia, Mim. mex., Rock Lotus, Chaenactis, Esch. cal., Poppy, Whiskering Bells, Phac. brac., Lonicera, Cast. affinis, Dich. cap.

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Quino Checkerspot General Form

Adult Survey

Location Maps 71-74 CNF Survey Segment _____
 Surveyor M. Heath Date 3/30/2010 Survey Week Number 5
 Survey Partner(s) _____
 Total Acres: _____ Portion Surveyed: _____ Elevation: Max _____ Min _____

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 0800	0	clear patchy overcast drizzle shower	4-9 (quits = 11)	73 (Air-71)
1005	0	clear patchy overcast drizzle shower	5-8 (quits = 12)	76 (Air-76)
1210	0	clear patchy overcast drizzle shower	1-2 (no quits)	88 (Air-87)
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 1345	0	clear patchy overcast drizzle shower	3-5 (no quits)	86 (Air-84)

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, *Plantago*, *Castilleja*, *Cordylanthus*, *Antirrhinum*, nectar sources.

Butterfly Species	Count (Total)	Hill-topping	Butterfly Species	Count (Total)	Hill-topping
Nymphalidae (Brush Footed Butterflies)			<i>Leptotes marina</i> (Marine Blue)	1	
<i>Euphydryas editha quino</i> (Quino Checkerspot)			<i>Philotes sonorensis</i> (Sonoran Blue)		
<i>Euphydryas chalcedona</i> (Chalcedon Checkerspot)			<i>Plebejus melissa</i> (Melissa Blue)		
<i>Charidryas gabbii</i> (Gabb's Checkerspot)			<i>Everes amyntula</i> (Western Tailed Blue)		
<i>Phycoides mylitta</i> (Mylitta Crescent)			<i>Brephidium exilis</i> (Western Pygmy Blue)		
<i>Thessalia leanira</i> (Leanira Checkerspot)			Riodinidae (Metalmarks)		
<i>Nymphalis antiopa</i> (Mourning Cloak)			<i>Apodemia mormo</i> (Mormon Metalmark)	16	
<i>Basilaria lorquini</i> (Lorquin's Admiral)			Papilionidae (Swallowtails)		
<i>Junonia coenia</i> (Common Buckeye)			<i>Papilio eurymedon</i> (Pale Swallowtail)		
<i>Vanessa annabella</i> (West Coast Lady)			<i>Papilio rutulus</i> (Western Tiger Swallowtail)		
<i>Vanessa atalanta</i> (Red Admiral)			<i>Papilio zelicaon</i> (Anise Swallowtail)		
<i>Vanessa cardui</i> (Painted Lady)			Pieridae (Whites and Orangetips)		
<i>Vanessa virginiensis</i> (American Lady)			<i>Anthocharis cethura</i> (Desert Orangetip)		
Danaidae			<i>Anthocharis sara</i> (Sara's Orangetip)		
<i>Danaus gilippus</i> (Queen)			<i>Pieris rapae</i> (Cabbage White)		
<i>Danaus plexippus</i> (Monarch)			<i>Pontia protodice</i> (Checkered White)	1	
Hesperiidae			<i>Colias eurytheme</i> (Orange Sulphur)		
<i>Heliopterus ericetorum</i> (Northern White-Skipper)			<i>Colias harfordii</i> (Harford's Sulphur)	8	
<i>Hylephila phyleus</i> (Fiery Skipper)			<i>Eurema nicippe</i> (Sleepy Orange)		
<i>Pyrgus albescens</i> (White Checkered Skipper)			Satyridae (Satyrids)		
<i>Erynnis funeralis</i> (Funereal Duskywing)	5		<i>Coenonympha californica</i> (Common California Ringlet)		
<i>Erynnis tristis</i> (Mournful Duskywing)			OTHERS:		
<i>Erynnis propertius</i> (Propertius Duskywing)			<i>Cupid</i> sp	1	
<i>Ochlodes agricola</i> (Rural Skipper)			<i>Cupido</i> sp	17	
Lycaenidae (Hairstreaks)			<i>Guthrie's Copper</i>	7	
<i>Atlides halesus</i> (Great Purple Hairstreak)			<i>Santa Ana</i> sp	4	
<i>Incisalia augustinus</i> (Western Brown Elf)			<i>White</i> sp	5	
<i>Callophrys perplexa</i> (Perplexing Hairstreak)			<i>Blue</i> sp	55	
<i>Strymon melinus</i> (Gray Hairstreak)					
<i>Glaucopsyche lygdamus</i> (Southern Blue)					
<i>Icaricia acmon</i> (Acmon Blue)	16				
<i>Celastrina ladon</i> (Echo Blue)					

Surveyor M. Heath

Segment # Maps 71-74

Date: 5/30/2010

Comments:

Plant Communities and Habitat Information:

Host Plants Present:

Nectar Plants Present: Erodium Tinney mustard, Fiddleneck, Downweed, Penstemon
Wash. blue curl, Golden yucca, Peony, Yucca, Lupine, Popcorn, Caribsonia,
Gilia, Chaparral pool monkey, Hounds, Coachella, stans, Phacelia, Pseudotsuga
Chia, Hollyleaf cherry, Lotus, Calif Poppy, Redwink, Brall Galia, Goldfields
Edenberry, Huckleberry milkvetch, White pineweed, Purdy's Phacelia, Indian Paintbrush

☐ Quino Sighting

Date:

GPS Location:

Photographs Taken:

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.



QUINO CHECKERSPOT BUTTERFLY
(*Euphydryas editha quino*) 45-DAY FOCUSED SURVEY
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SAN DIEGO COUNTY, CALIFORNIA

Prepared for:

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8315 Century Park Court, CP21G
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Prepared by:

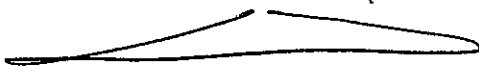
CHAMBERS GROUP, INC.
9909 Huennekens Street
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September 2010

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David King

NAME (PLEASE PRINT)



SIGNATURE

10/14/2010

DATE

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ADDRESS

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Melissa Busby

NAME (PLEASE PRINT)

Melissa Busby

SIGNATURE

10/13/10

DATE

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ADDRESS

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Nathan T. Moorhatch
NAME (PLEASE PRINT)

Nathan T. Moorhatch
SIGNATURE

9/26/10
DATE

310 S. Jefferson St. Apt. 10A, Placentia CA 92870
ADDRESS

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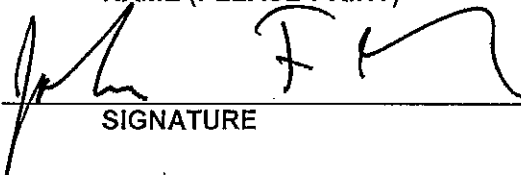
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John F. Green

NAME (PLEASE PRINT)



SIGNATURE

22 Sep 2010

DATE

3120 Chicago Ave., Ste 110, Riverside, CA 92507

ADDRESS

(AMEC)

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MICHAEL D. WILCOX
NAME (PLEASE PRINT)

SIGNATURE

23 SEPT 10
DATE

AMEC, 3120 CHICAGO AVE., SUITE 110, RIVERSIDE 92507
ADDRESS

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Stephen J. Myers

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CHET MCGAUGH

NAME (PLEASE PRINT)

Chet McGaugh

SIGNATURE

Sept 23, 2010

DATE

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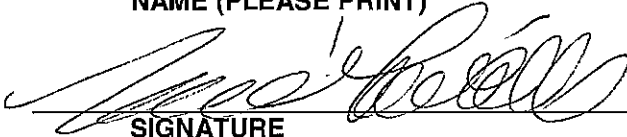
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Nicole Kimball
NAME (PLEASE PRINT)


SIGNATURE

06-Oct-10
DATE

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ANDREW FORDE
NAME (PLEASE PRINT)

SIGNATURE

09-23-2010
DATE

5276 BUENA MESA COURT, CAMARILLO, CA 93012
ADDRESS

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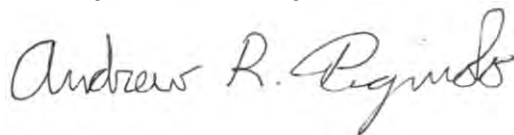
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Andrew R. Pignuolo

NAME (PLEASE PRINT)



9/24/10

SIGNATURE

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Laurie Gorman

NAME (PLEASE PRINT)



September 20, 2010

SIGNATURE

DATE

165 Paseo de las Delicias, Redondo Beach, CA 90277

ADDRESS

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Adam H. Behle

NAME (PLEASE PRINT)



SIGNATURE

September 27, 2010

DATE

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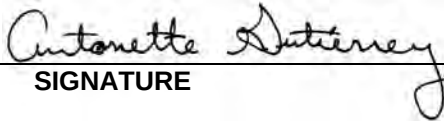
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Antonette T. Gutierrez

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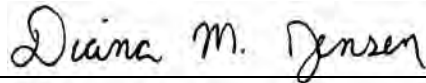
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Diana M. Jensen

NAME (PLEASE PRINT)



SIGNATURE

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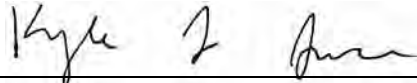
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Kyle L. Ince

NAME (PLEASE PRINT)



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Melissa A. Booker

NAME (PLEASE PRINT)

Melissa A Booker

SIGNATURE

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Stephen R. Rink

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Robert C. Fletcher Jr.

NAME (PLEASE PRINT)

Robert C. Fletcher Jr.

SIGNATURE

9/23/10

DATE

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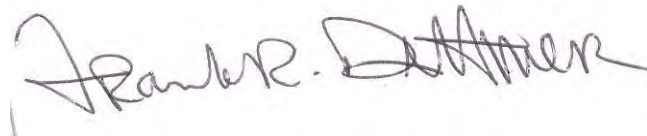
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Frank R. Dittmer

NAME (PLEASE PRINT)



9/24/10

SIGNATURE

DATE

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Greg Chatman

NAME (PLEASE PRINT)



SIGNATURE

October 10, 2010

DATE

5 Hutton Centre Drive, Suite 750, Santa Ana California 92707

ADDRESS

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September 2010

The undersigned certify this report to be a complete and accurate account of the findings and conclusions of focused surveys for adult Quino Checkerspot Butterfly (*Euphydryas editha quino*) conducted during the spring of year 2010, within suitable QCB habitat on the San Diego Gas & Electric Cleveland National Forest Project right-of-way, San Diego County, California.

Jane Higginson

NAME (PLEASE PRINT)

Jane Higginson

SIGNATURE

10/5/10

DATE

11433 Eucalyptus Hills Dr., Lakeside CA 92040

ADDRESS

QUINO CHECKERSPOT BUTTERFLY
(*Euphydryas editha quino*) 45-DAY FOCUSED SURVEY
REPORT FOR THE SAN DIEGO GAS & ELECTRIC
CLEVELAND NATIONAL FOREST PROJECT,
SAN DIEGO COUNTY, CALIFORNIA

Prepared for:

SAN DIEGO GAS & ELECTRIC
8315 Century Park Court, CP21G
San Diego, Ca 92123-1548
(858) 637-3708

Prepared by:

CHAMBERS GROUP, INC.
9909 Huennekens Street
San Diego, California 92121
(858) 541-2800

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Martha Heath, Ph.D

NAME (PLEASE PRINT)

Martha Heath

SIGNATURE

09/20/2010

DATE

2550 Grandview St, San Diego, CA 92110

ADDRESS

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(858) 637-3708**

Prepared by:

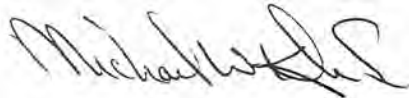
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Michael Klein

NAME (PLEASE PRINT)



SIGNATURE

October 1, 2010

DATE

5 Hutton Centre Drive, Suite 750, Santa Ana California 92707

ADDRESS

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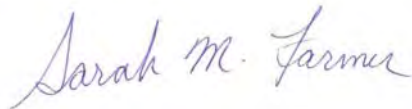
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Sarah M. Farmer

NAME (PLEASE PRINT)



9/24/10

SIGNATURE

DATE

7969 Engineer Road, Suite 208, San Diego, CA 92111

ADDRESS

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MAYA MAZON

NAME (PLEASE PRINT)



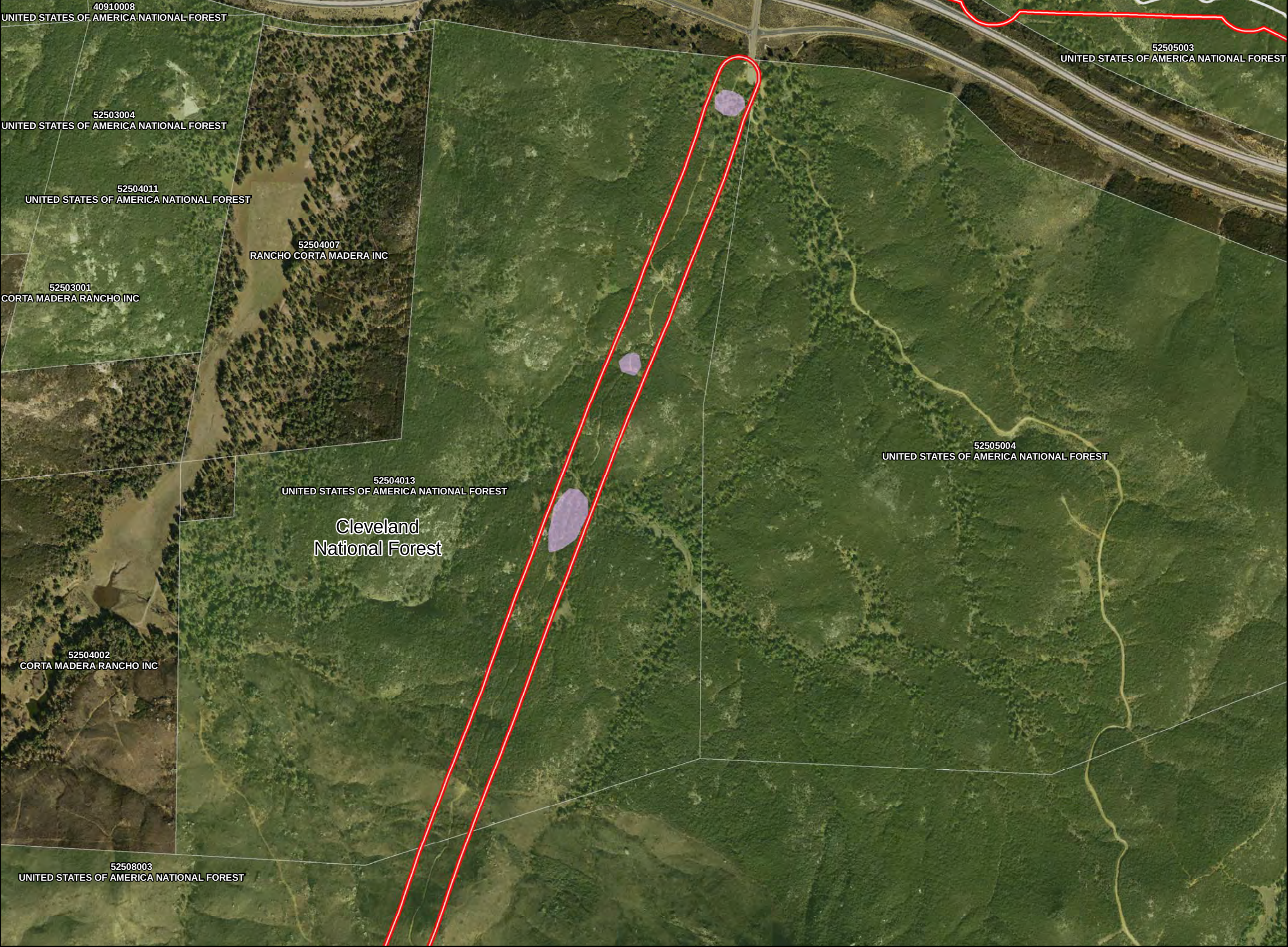
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10/25/10

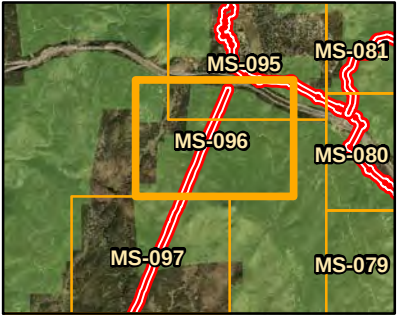
DATE

100 N. RIVER CIRCLE, OCEANSIDE, CA 92057

ADDRESS



- Legend**
- Survey Area
 - TCM Access Road
 - USFS Managed Lands
 - Cleveland National Forest Congressional District Boundary
 - Parcels
 - USFWS Occupied Habitat
 - QCB Host Plant



QUINO CHECKERSPOT
HOST PLANT LOCATIONS

PAGE: MS-097

Legend

-  Survey Area
-  TCM Access Road
-  USFS Managed Lands
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Congressional District Boundary
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