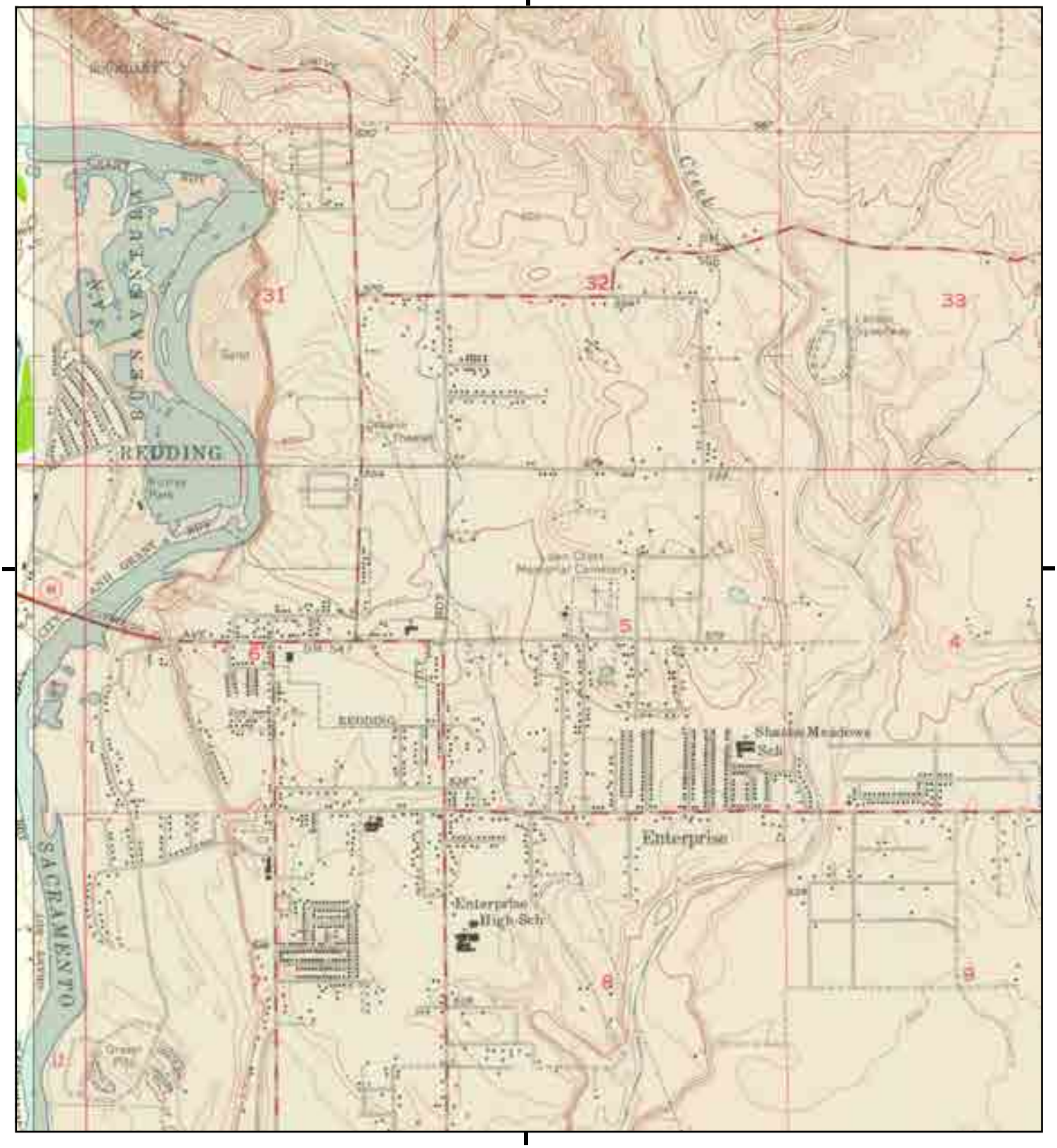
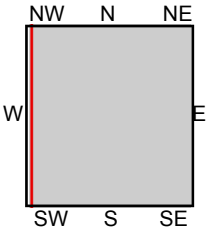
Historical Topo Map

1957



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



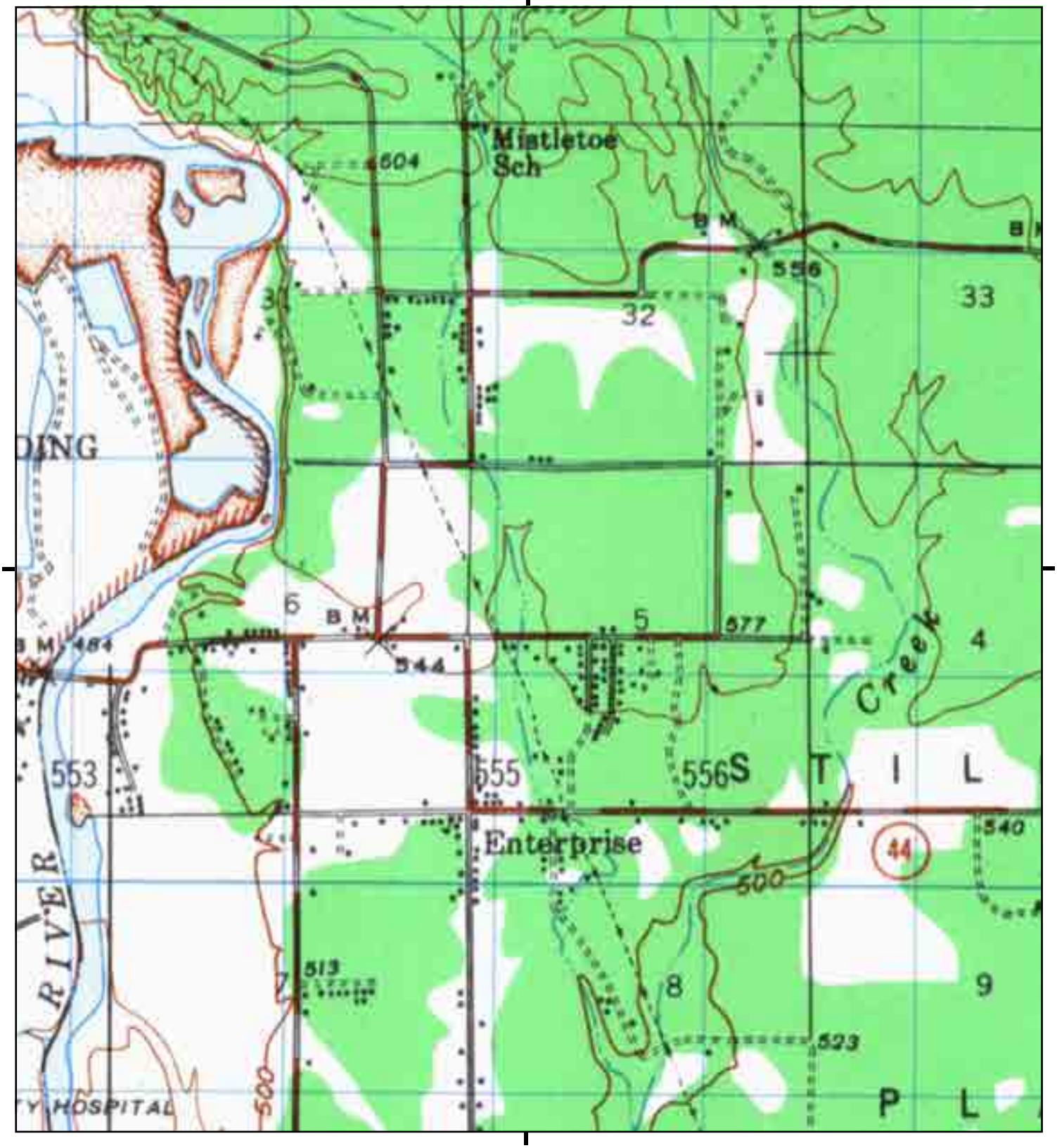
TP, Enterprise, 1957, 7.5-minute
W, Redding, 1957, 7.5-minute

SITE NAME: APN 067-110-052
ADDRESS: 1201 Industrial Street
Redding, CA 96002
CLIENT: Bole and Associates

N

Historical Topo Map

1946



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

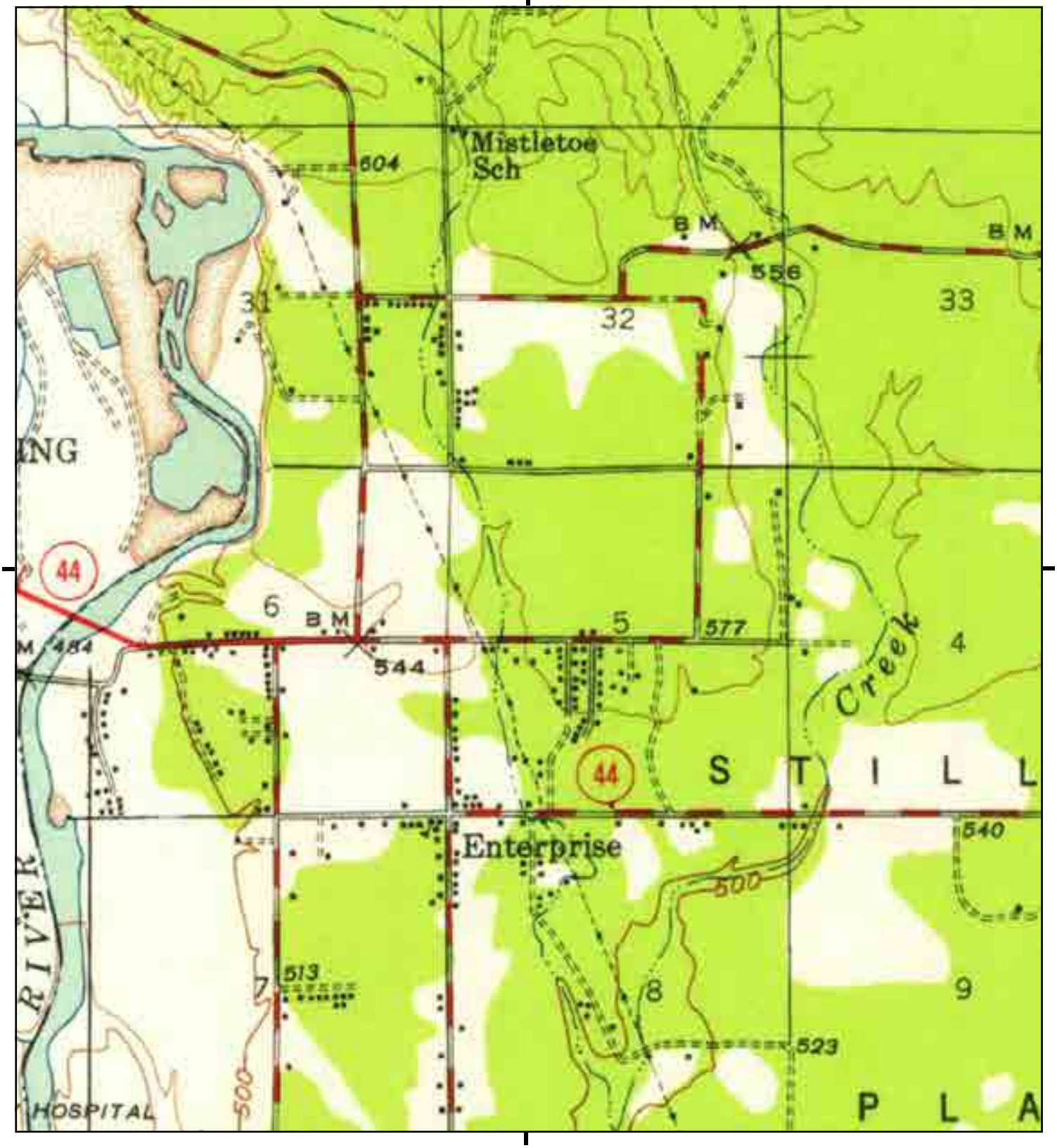
TP, REDDING, 1946, 15-minute

SITE NAME: APN 067-110-052
ADDRESS: 1201 Industrial Street
Redding, CA 96002
CLIENT: Bole and Associates

N

Historical Topo Map

1944



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

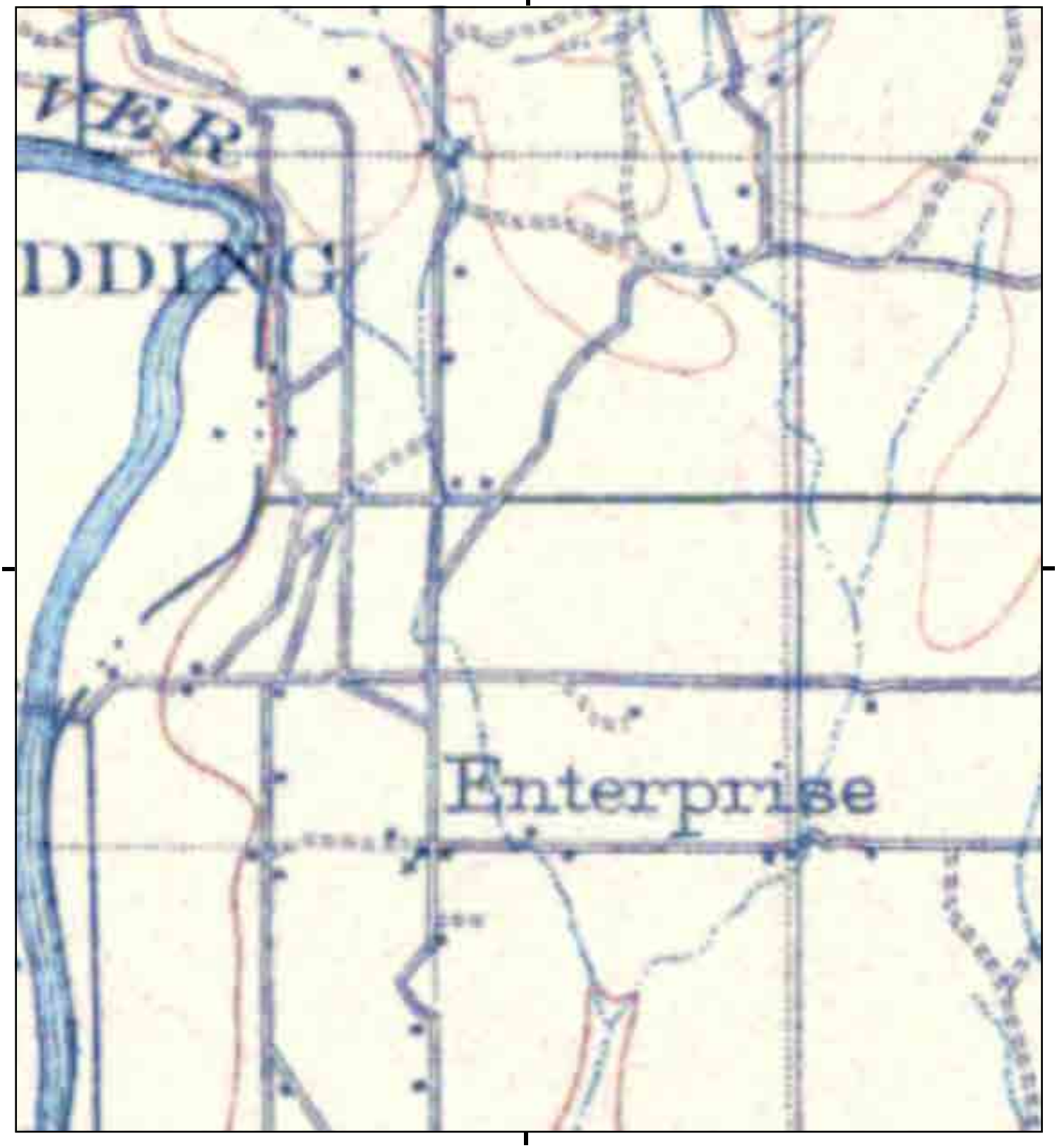
TP, Redding, 1944, 15-minute

SITE NAME: APN 067-110-052
ADDRESS: 1201 Industrial Street
Redding, CA 96002
CLIENT: Bole and Associates

N

Historical Topo Map

1913



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

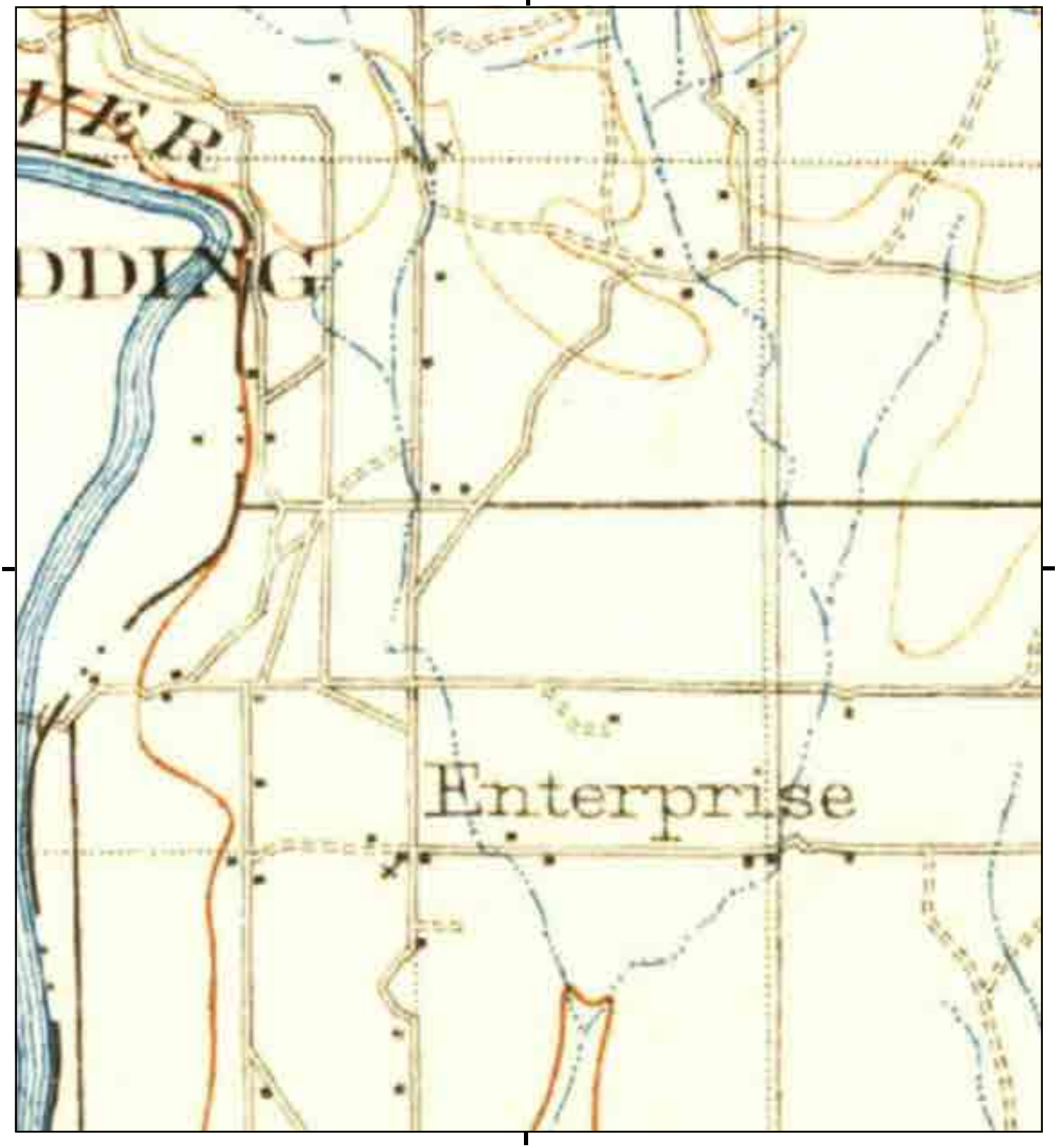
TP, REDDING, 1913, 30-minute

SITE NAME: APN 067-110-052
ADDRESS: 1201 Industrial Street
Redding, CA 96002
CLIENT: Bole and Associates

N

Historical Topo Map

1901



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Redding, 1901, 30-minute

SITE NAME: APN 067-110-052
ADDRESS: 1201 Industrial Street
Redding, CA 96002
CLIENT: Bole and Associates

N

APN 067-110-052

1201 Industrial Street

Redding, CA 96002

Inquiry Number: 5920771.3

December 31, 2019

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

12/31/19

Site Name:	Client Name:
APN 067-110-052	Bole and Associates
1201 Industrial Street	6898 Penny Way
Redding, CA 96002	Brown Valley, CA 95918
EDR Inquiry # 5920771.3	Contact: David Bole

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Bole and Associates were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # AC2E-4309-9ED5

PO # NA

Project 1879

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: AC2E-4309-9ED5

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

The Sanborn Library LLC Since 1866™

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APN 067-110-052
1201 Industrial Street
Redding, CA 96002

Inquiry Number: 5920771.6
December 31, 2019

The EDR Property Tax Map Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Property Tax Map Report

Environmental Data Resources, Inc.'s EDR Property Tax Map Report is designed to assist environmental professionals in evaluating potential environmental conditions on a target property by understanding property boundaries and other characteristics. The report includes a search of available property tax maps, which include information on boundaries for the target property and neighboring properties, addresses, parcel identification numbers, as well as other data typically used in property location and identification.

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Please contact EDR at 1-800-352-0050
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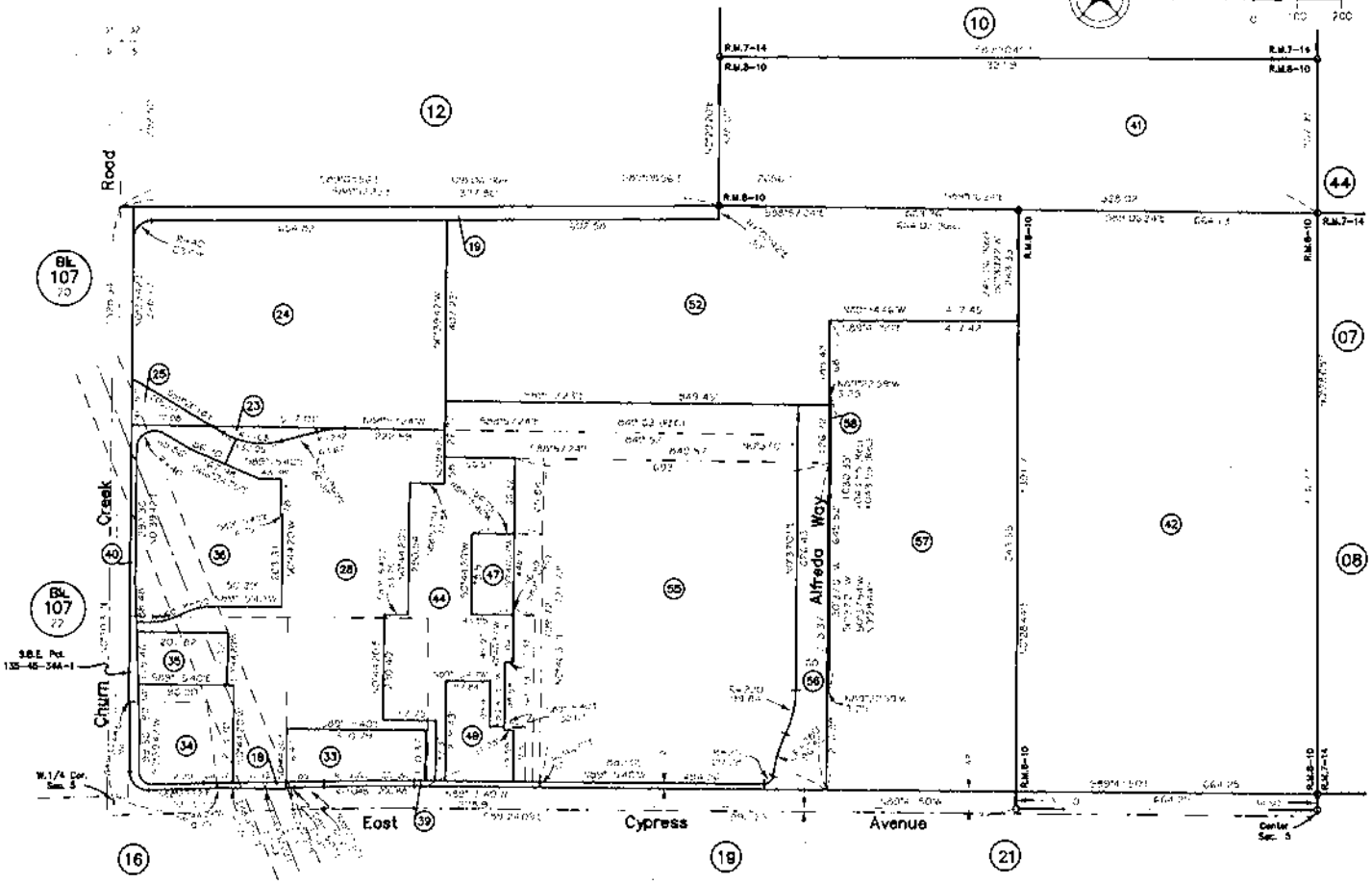
Por. NW.1/4, Sec.5, T.31N.,R.4 W.

67-11



R.M.7-14,Lawncrest Memorial Pk.,R.M.8-10,18-28,18-29
P.M.9-22,24-131,34-1,35-72,36-67,
L.S.10-60,13-54,14-16,18-24,26-28,28-18,28-30,28-50,31-56,31-197,37-121,38-16,55-125,56-69,

FOR REFERENCE ONLY

APN 067-110-052
1201 Industrial Street
Redding, CA 96002

Inquiry Number: 5920771.8
December 31, 2019

EDR Building Permit Report

Target Property and Adjoining Properties

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

About This Report

Executive Summary

Findings

Glossary

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EDR BUILDING PERMIT REPORT

About This Report

The EDR Building Permit Report provides a practical and efficient method to search building department records for indications of environmental conditions. Generated via a search of municipal building permit records gathered from more than 1,600 cities nationwide, this report will assist you in meeting the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

Building permit data can be used to identify current and/or former operations and structures/features of environmental concern. The data can provide information on a target property and adjoining properties such as the presence of underground storage tanks, pump islands, sumps, drywells, etc., as well as information regarding water, sewer, natural gas, electrical connection dates, and current/former septic tanks.

ASTM and EPA Requirements

ASTM E 1527-13 lists building department records as a "standard historical source," as detailed in § 8.3.4.7: "Building Department Records - The term building department records means those records of the local government in which the property is located indicating permission of the local government to construct, alter, or demolish improvements on the property." ASTM also states that "Uses in the area surrounding the property shall be identified in the report, but this task is required only to the extent that this information is revealed in the course of researching the property itself."

EPA's Standards and Practices for All Appropriate Inquires (AAI) states: "§312.24: Reviews of historical sources of information. (a) Historical documents and records must be reviewed for the purposes of achieving the objectives and performance factors of §312.20(e) and (f). Historical documents and records may include, but are not limited to, aerial photographs, fire insurance maps, building department records, chain of title documents, and land use records."

Methodology

EDR has developed the EDR Building Permit Report through our partnership with BuildFax, the nation's largest repository of building department records. BuildFax collects, updates, and manages building department records from local municipal governments. The database now includes 30 million permits, on more than 10 million properties across 1,600 cities in the United States.

The EDR Building Permit Report comprises local municipal building permit records, gathered directly from local jurisdictions, including both target property and adjoining properties. Years of coverage vary by municipality. Data reported includes (where available): date of permit, permit type, permit number, status, valuation, contractor company, contractor name, and description.

Incoming permit data is checked at seven stages in a regimented quality control process, from initial data source interview, to data preparation, through final auditing. To ensure the building department is accurate, each of the seven quality control stages contains, on average, 15 additional quality checks, resulting in a process of approximately 105 quality control "touch points."

For more information about the EDR Building Permit Report, please contact your EDR Account Executive at (800) 352-0050.

EDR® Environmental Data Resources Inc

BUILD FAX PROPERTY HISTORY

EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

A search of building department records was conducted by Environmental Data Resources, Inc (EDR) on behalf of Bole and Associates on Dec 31, 2019.

TARGET PROPERTY

1201 Industrial Street
Redding, CA 96002

SEARCH METHODS

EDR searches available lists for both the Target Property and Surrounding Properties.

RESEARCH SUMMARY

Building permits identified: **YES**

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Redding

Year	*Source*	*TP*	*Adjoining*
2019	City of Redding, Development Services, Building Divisi		X
2018	City of Redding, Development Services, Building Divisi		X
2017	City of Redding, Development Services, Building Divisi		X
2016	City of Redding, Development Services, Building Divisi		
2015	City of Redding, Development Services, Building Divisi		X
2014	City of Redding, Development Services, Building Divisi		X
2013	City of Redding, Development Services, Building Divisi		
2012	City of Redding, Development Services, Building Divisi		
2011	City of Redding, Development Services, Building Divisi		X
2010	City of Redding, Development Services, Building Divisi		X
2009	City of Redding, Development Services, Building Divisi		
2008	City of Redding, Development Services, Building Divisi		
2007	City of Redding, Development Services, Building Divisi		X
2006	City of Redding, Development Services, Building Divisi		X
2005	City of Redding, Development Services, Building Divisi		X
2004	City of Redding, Development Services, Building Divisi		X
2003	City of Redding, Development Services, Building Divisi		X
2002	City of Redding, Development Services, Building Divisi		
2001	City of Redding, Development Services, Building Divisi		
2000	City of Redding, Development Services, Building Divisi		X
1999	City of Redding, Development Services, Building Divisi		
1998	City of Redding, Development Services, Building Divisi		
1997	City of Redding, Development Services, Building Divisi		
1996	City of Redding, Development Services, Building Divisi		X
1995	City of Redding, Development Services, Building Divisi		
1994	City of Redding, Development Services, Building Divisi		
1993	City of Redding, Development Services, Building Divisi		
1992	City of Redding, Development Services, Building Divisi		

EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

Year	Source	TP	Adjoining
1991	City of Redding, Development Services, Building Divisi		X
1990	City of Redding, Development Services, Building Divisi		X
1989	City of Redding, Development Services, Building Divisi		
1988	City of Redding, Development Services, Building Divisi		X
1987	City of Redding, Development Services, Building Divisi		
1986	City of Redding, Development Services, Building Divisi		
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1984	City of Redding, Development Services, Building Divisi		
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1952	City of Redding, Development Services, Building Divisi		
1951	City of Redding, Development Services, Building Divisi		
1950	City of Redding, Development Services, Building Divisi		
1949	City of Redding, Development Services, Building Divisi		
1948	City of Redding, Development Services, Building Divisi		
1947	City of Redding, Development Services, Building Divisi		

EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

Year	Source	TP	Adjoining
1946	City of Redding, Development Services, Building Divisi		
1945	City of Redding, Development Services, Building Divisi		
1944	City of Redding, Development Services, Building Divisi		
1943	City of Redding, Development Services, Building Divisi		
1942	City of Redding, Development Services, Building Divisi		
1941	City of Redding, Development Services, Building Divisi		
1940	City of Redding, Development Services, Building Divisi		
1939	City of Redding, Development Services, Building Divisi		
1938	City of Redding, Development Services, Building Divisi		
1937	City of Redding, Development Services, Building Divisi		
1936	City of Redding, Development Services, Building Divisi		
1935	City of Redding, Development Services, Building Divisi		
1934	City of Redding, Development Services, Building Divisi		
1933	City of Redding, Development Services, Building Divisi		
1932	City of Redding, Development Services, Building Divisi		
1931	City of Redding, Development Services, Building Divisi		
1930	City of Redding, Development Services, Building Divisi		
1929	City of Redding, Development Services, Building Divisi		
1928	City of Redding, Development Services, Building Divisi		
1927	City of Redding, Development Services, Building Divisi		
1926	City of Redding, Development Services, Building Divisi		

Name: JurisdictionName
Years: Years
Source: Source
Phone: Phone

BUILDING DEPARTMENT RECORDS SEARCHED

Name: Redding
Years: 1926-2019
Source: City of Redding, Development Services, Building Division, REDDING, CA
Phone: 530-225-4014

Name: Shasta County Unincorporated Area
Years: 1972-2019
Source: County of Shasta, Building Division, REDDING, CA
Phone: (530) 225-5761

TARGET PROPERTY FINDINGS

TARGET PROPERTY DETAIL

1201 Industrial Street
Redding, CA 96002

No Permits Found

APN 067-110-052
1201 Industrial St
Redding, CA 96002

Inquiry Number: 5920771.5
January 02, 2020

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

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Year	Target Street	Cross Street	Source
2014	☑	☑	EDR Digital Archive
2010	☑	☑	EDR Digital Archive
2005	☑	☑	EDR Digital Archive
2000	☑	☑	EDR Digital Archive
1995	☑	☑	EDR Digital Archive
1992	☑	☑	EDR Digital Archive
1987	☑	☑	EDR Digital Archive
1981	☑	☐	POLK DIRECTORY CO
1976	☑	☐	POLK DIRECTORY CO
1971	☑	☐	POLK DIRECTORY CO
1964	☑	☐	POLK DIRECTORY CO
1959	☐	☐	POLK DIRECTORY CO

FINDINGS

TARGET PROPERTY STREET

1201 Industrial St
Redding, CA 96002

Year	CD Image	Source	
INDUSTRIAL ST			
2014	pg A2	EDR Digital Archive	
2010	pg A5	EDR Digital Archive	
2005	pg A7	EDR Digital Archive	
2000	pg A9	EDR Digital Archive	
1995	pg A11	EDR Digital Archive	
1992	pg A13	EDR Digital Archive	
1987	pg A15	EDR Digital Archive	
1981	pg A18	POLK DIRECTORY CO	
1981	pg A19	POLK DIRECTORY CO	
1976	pg A22	POLK DIRECTORY CO	
1971	pg A25	POLK DIRECTORY CO	
1971	pg A26	POLK DIRECTORY CO	
1964	-	POLK DIRECTORY CO	Street not listed in Source
1959	-	POLK DIRECTORY CO	Street not listed in Source

FINDINGS

CROSS STREETS

Year	CD Image	Source	
CHURN CREEK RD			
2014	pg. A1	EDR Digital Archive	
2010	pg. A3	EDR Digital Archive	
2005	pg. A6	EDR Digital Archive	
2000	pg. A8	EDR Digital Archive	
1995	pg. A10	EDR Digital Archive	
1992	pg. A12	EDR Digital Archive	
1987	pg. A14	EDR Digital Archive	
1981	pg. A16	POLK DIRECTORY CO	
1981	pg. A17	POLK DIRECTORY CO	
1976	pg. A20	POLK DIRECTORY CO	
1976	pg. A21	POLK DIRECTORY CO	
1971	pg. A23	POLK DIRECTORY CO	
1971	pg. A24	POLK DIRECTORY CO	
1964	pg. A27	POLK DIRECTORY CO	
1959	-	POLK DIRECTORY CO	Target and Adjoining not listed in Source

City Directory Images

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

CHURN CREEK RD 2014

2150	GRAY AND PROUTY - SAN DIEGO
	HAZEN BRGER HAMILTON PROF CORP
2170	A & A PRESTIGE CLEANERS INC
2175	LANE, HELEN
2180	CLEAN CAR CAR WASH
	XANDERS JREEK JYRO
2185	BRIGHTWORK
	CROSS ROAD DRY CLEANERS
	DOROTHEA HOWERTON
	EDWARD D JONES & CO LP
	FUNKY TRUNK
	GOLDEN HORIZON MORTGAGE INC
	KATHY S CANINE CONNECTION
	PECK JOHN DC
	PECK, JOHN
	REDDING PREMIER REALTY INC
	RELAXING MASSAGE
	RICHARD PEARSALL
	SCHRITTERS JEWELRY & REPAIR
	SHASTA OPTIONS
	SHEAR CLASS
	TAFFS INSURANCE SERVICE
	TUSCAN SUN PROPERTY MANAGEMENT
	WEST VALLEY APPRAISALS
2200	PLAY IT AGAIN SPORTS
2236	STROUPS POWER EQUIPMENT INC
2245	TRI COUNTIES BANK
2250	STIRRING CAFE
2304	AUTOMOBILE ACCESSORIES COMPANY
	FRANKLIN ENGINE & PARTS INC
	GENUINE PARTS COMPANY
	J D ROSS ENTERPRISES INC
	TAYLOR AUTO PARTS
2323	UNITED STATES POSTAL SERVICE
	WHITHAUS, CAROLINA
2330	FURNITURE AND MATTRESS 86 INC
2354	BRYANT AUTOMOTIVE
2525	TAYLOR MOTORS INC
2586	CHICKEN SHACK
	NOA NOA
2600	NIPAS THAI CUISINE
2601	AUTOZONE INC
2610	CADDY DDDYS TTTOO PRCING PRLOR
	MEDIECALI COLLECTIVE
	NORCAL COLOR SUPPLY
	RFC RACING

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

INDUSTRIAL ST 2014

850	HEART AND HOMECARE INC
	INTERNAL REVENUE SERVICE
	NORTHSTATE BOOKKEEPING
	OPEN SYSTEM MRI II LTD PARTNR
855	NAPIER PRINTING
	ZIP TAX INC
865	KROPP THOMAS DISTRIBUTORS
915	REFRIGERATION SUPPLIES DISTR
	RSD FIBERGLASS COOLING TOWERS
935	NORCAL ELEC SUPPLY
	REXEL INC
1160	AMBR INC
1168	STIMPEL-WIEBELHAUS ASSOC INC
	STIMPEL-WIEBELHAUS INC
	STIMPLE-WIEBELHAUS ASSOCIATES
1170	INDUSTRIAL PROPERTIES LLC
	PHOENIX CONSTRUCTORS
1180	CUSTOM AUTO DETAILING
1200	SLAKEY BROTHERS INC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

CHURN CREEK RD 2010

2150	RED HALL INC
2170	A & A PRESTIGE CLEANERS INC
	ADAMS BCD INC
2175	OCCUPANT UNKNOWN,
2180	CLEAN CAR CAR WASH
	HUMAN BEAN
	OCCUPANT UNKNOWN,
2185	AMERICAN GENERAL FINANCE INC
	AVALON FINANCIAL GROUP
	BENSON & ASSOCIATES
	CONNIE APPLE
	CONSULT530 CARRIERSOFT LLC
	CROSS ROAD DRY CLEANERS
	CROSSROADS CLEANERS
	DOROTHEA HOWERTON
	DR JOHN PECK DC
	EDWARD D JONES & CO LTD PARTNR
	ELECTROLOGY BY SARAH
	GET NAILED
	GIBSON APPRAISALS
	GOLDEN HORIZON MORTGAGE INC
	KATHY S CANINE CONNECTION
	LEAVERTONS BEAUTY
	MADINA MIKE
	NEVES ENTERPRISES INC
	PECK JOHN DC
	PEREIRA BRANDON INVESTMTN REP
	RELAXING MASSAGE
	RENTAL CLEANING SERVICES
	ROUNDPEG
	SCHRITTERS JEWELRY & REPAIR
	SHEAR CLASS
	TAFFS INSURANCE SERVICE
	THOMAS, WILSON
2200	PLAY IT AGAIN SPORTS
2221	DUTCH BROS COFFEE
2236	STROUPS POWER EQUIPMENT INC
2250	MINER CHRISTMAS TREES
2285	GARLAND, AMY
2304	FRANKLIN ENGINE & PARTS INC
	GENUINE PARTS COMPANY
	TAYLOR AUTO PARTS
2323	LOCAL 960 POST OFFICE
	UNITED STATES POSTAL SERVICE
2354	BRYANTS AUTOMOTIVE
2525	TAYLOR MOTORS INC
2600	NIPAS THAI CUISINE
2601	AUTOZONE INC
2610	CATTY DADDYS
	JEREMY PFENNING

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

CHURN CREEK RD 2010 (Cont'd)

2610 MEDIECALI COLLECTIVE
NORCAL COLOR SUPPLY

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

INDUSTRIAL ST 2010

850	INTERNAL REVENUE SERVICE
855	NAPIER PRINTING
	PRINT EFFECTS
865	KROPP THOMAS DISTRIBUTORS
915	RSD FIBERGLASS COOLING TOWERS
935	SUMMERS GROUP INC
1160	AMBR INC
1170	INDUSTRIAL PROPERTIES LLC
	PHOENIX CONSTRUCTORS
	STIMPEL-WIEBELHAUS ASSOC INC
	STIMPEL-WIEBELHAUS INC
	STIMPLE-WIEBELHAUS ASSOCIATES
1180	CREIGHTON, ALAN
	CUSTOM AUTO DETAILING
	MALLETTE DEBRA
	MISSING IN AMERICA PROJECT
	SHASTA FIRE EQUIPMENT INC
1200	SLAKEY BROTHERS INC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

CHURN CREEK RD 2005

2150	AMERICAN PACIFIC MORTGAGE
	PLACER TITLE CO
	USLENDING COMPANY
2170	A & A PRESTIGE CLEANERS INC
2180	CLEAN CAR CAR WASH
	HOT SHOTS ESPRESSO
2185	AMERICAN GENERAL FINANCE INC
	CASEY CHIROPRACTIC
	EDWARD D JONES & CO LP
	FIRST AMERCN TITLE SHASTA CNTY
	GIBSON APPRAISALS
	GOLDEN HORIZON MORTGAGE INC
	HEEL SEW QUIK
	KATHYS CANINE CONNECTION
	KAUFMAN & BROAD NORTHERN CAL
	MADINA MIKE
	MANPOWER INC
	PROFESSIONAL BUSINESS SERVICES
	REVERSE MORTGAGE SPECIALISTS
	SALLYS FLORIST & GIFTS
	SCHRITTERS JEWELERY & REPAIR
	SHEAR CLASS
	THOMAS WILSON D C
	UNITY MORTGAGE CORP
	WEST VALLEY APPRAISAL
2200	OAK WAREHOUSE
2236	STROUPS CHAIN SAW INC
2250	REDDING CHRISTIAN SUPPLY CTR
	YOUTH FOR CHRIST/USA
2285	GARLAND, AMY
2304	FRANKLIN ENGINE AND PARTS
	VAN DYKE CARL
2323	OCCUPANT UNKNOWN,
	UNITED STATES POSTAL SERVICE
2330	FURNITURE GALLERY
2354	BRYANTS AUTOMOTIVE
2436	PAYNE LOUIS W
2525	TAYLOR MOTORS INC
2586	LA PALOMAR
2600	BERG DANIEL S
	NIPAS THAI CUISINE
	PACIFIC BLUE
2601	AUTOZONE INC
2610	NORCAL COLOR SUPPLY

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

INDUSTRIAL ST 2005

850	BARNES TERRY L AND ROBBE A
	IKON OFFICE SOLUTIONS INC
	INTERNAL REVENUE SERVICE
	OPEN SYSTEM IMAGING
855	NAPIER PRINTING
	PRINT EFFECTS
865	KROPP THOMAS DISTRIBUTORS
915	SARA LEE BAKERY GROUP INC
935	REXEL INC
1160	AMBR INC
	TIERRA & KNOLLS INVESTORS LLC
	WESTERN HORT TAG & LABEL LLC
1168	DEL TERRA INC
1170	HIGRADE CONSTRUCTION INC
	STIMPEL-WIEBELHAUS ASSOCIATES
	STIMPEL-WIEBELHAUS INC
	STIMPLE-WIEBELHAUS ASSOCIATES
1180	HARPER, WILLIAM A
	KIRBYCAD
	MALLETTE DEBRA
	SHASTA FIRE EQUIPMENT CO
1200	SLAKEY BROTHERS INC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

CHURN CREEK RD 2000

2150	ACADEMY MORTGAGE CORPORATION
	MEGABANK MORTGAGE CO
	PLACER TITLE CO
2170	A & A PRESTIGE CLEANERS INC
2185	AMERICAN GENERAL FINANCE INC
	CASEY CHIROPRACTIC
	CASEY MICHAEL D DC
	DIANAS CANINE CONNECTION
	ENCHANTED TREASURES
	HEEL SEW QUIK INC
	HIS HAVEN INC
	INSIGHT REVITALIZATION CENTER
	INVESTORS MORTGAGE FUNDING
	JONES EDWARD D & CO LP
	KAUFMAN & BROAD OF NTHRN CAL
	LATHROP, C
	MANPOWER INC
	PROFESSIONAL BUSINESS SERVICES
	SCHRITTERS JEWELERY & REPAIR
	SHEAR CLASS
2235	REDDING GROCERY OUTLET
2236	OCCUPANT UNKNOWN,
	STROUPS CHAIN SAW INC
2250	REDDING CHRISTIAN SUPPLY CTR
	YOUTH FOR CHRIST/USA
2304	FRANKLIN ENGINE AND PARTS
	VAN DYKE CARL
2323	UNITED STATES POSTAL SERVICE
2330	ADVANCED TECHNICAL INSTITUTE
	LARSONS FURNITURE
2354	BRYANTS AUTOMOTIVE
2370	YOUNG, AMANDA B
2434	OCCUPANT UNKNOWN,
2436	PAYNE LOUIS W
2510	OCCUPANT UNKNOWN,
2525	TAYLOR MOTORS INC
2550	OCCUPANT UNKNOWN,
2554	OCCUPANT UNKNOWN,
2586	LA PALOMAR
	OCCUPANT UNKNOWN,
2590	OCCUPANT UNKNOWN,
2610	CRESCENT PLUMBING & SUPPLY
	LEEDYS PAINTS PLUS

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

INDUSTRIAL ST 2000

850	IKON OFFICE SOLUTIONS INC
865	KROPP THOMAS DISTRIBUTORS
867	CD MANAGEMENT SERVICES
915	EARTHGRAINS BAKING COMPANIES
935	NORCAL ELECTRIC SUPPLY INC
1170	G 7 HOLDINGS
	HIGRADE CONSTRUCTION INC
	STIMPEL WIEBELHAUS ASSOCIATES
	STIMPEL-WIEBELHAUS INC
	TRINITY EQUIPMENT CO
1180	CHAIN GANG BIKE SHOP
	NORTH WESTERN BUILDERS INC
	SHASTA FIRE EQUIPMENT CO
1200	SLAKEY BROTHERS INC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

CHURN CREEK RD 1995

2120	CRONIC, ROBERT
	REINER, RUSSELL P
2150	CALIFORNIA HLTH PROFESSIONALS
	FIDELITY NAT TITLE INS
	REDDING TITLE CO
	ROBESON, GARY R
	SCRUGGS, C E
2163	SUPERIOR UPHOLSTERY
2185	DRAY COMMUNICATIONS
	ENCHANTED TREASURES
	HEEL SEW QUIK
	HIS HAVEN INC
	INVESTORS MORTGAGE FUNDING
	JONES EDWARD D & CO LP
	KAUFMAN & BROAD OF NTHRN CAL
	MANPOWER TECHNICAL SERVICES
	REDDING WEIGHT MGT MED CENTE
	REGIONAL CREDIT ASSN
	SHEAR CLASS
2195	SNAVELY, DONALD G
2200	OAK WAREHOUSE INC
2221	FLEUR MARCHE SILKS
2236	STROUP, LARRY C
	STROUPS CHAIN SAW INC
2245	CLASS AUTO SALES
2250	REDDING CHRISTIAN SUPPLY CTR
	RIECK, DAVID
	ROTARY CLUB OF REDDING
	YOUTH FOR CHRIST/USA
2304	COMPUTER GYM
	FRANKLIN ENGINE AND PARTS
2323	UNITED STATES POSTAL SERVICE
2354	BRYANTS AUTOMOTIVE
2436	PAYNE LOUIS W
2525	TAYLOR MOTORS INC
2550	KING RICHARDS INC
2554	CARTER, H
2586	LA PALOMAR
2600	BRITISH PUB
2610	CRESCENT PLUMBING & SUPPLY
	LIDDELL CONSTRUCTION SUPPLY
	OCCUPANT UNKNOWNN
	PAINTS PLUS

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

INDUSTRIAL ST 1995

825	AUSTIN, KRISTEN
855	BEN FRANKLIN PRINTING
867	CD MANAGEMENT SERVICES
915	G W E INC
935	NORCAL ELECTRIC SUPPLY INC
1160	INDEPENDENT BUSINESS FORMS
1168	MASSMUTUAL LIFE INSURANCE
	MAXIM FINANCIAL INSURANCE SVCS
1170	G 7 HOLDINGS
	HIGRADE CONSTRUCTION INC
	PHOENIX CONSTRUCTORS
	STIMPEL WIEBELHAUS ASSOCIATES
	STIMPEL-WIEBELHAUS INC
	TRINITY EQUIPMENT CO
1180	NORTH WESTERN BUILDERS
	SHASTA FIRE EQUIPMENT CO

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

CHURN CREEK RD 1992

2120	TAYLOR, SHIRLEY
2200	OAK WAREHOUSE INC
2236	STROUPS CHAIN SAW INC
2250	CARMONA PECK & ANTHONY INC
2304	AESTHETIC DENTAL ARTS
	FRANKLIN ENGINE AND PARTS
2323	REDDING GENERAL MAILING
	STAMPS BY MAIL
2330	CHICO FURNITURE WAREHOUSE
2354	BRYANTS AUTOMOTIVE
2525	TAYLOR MOTORS INC
2534	LOUS AUTO REPAIR
2550	KING RICHARDS INC
2554	CARTER, H
2586	LA PALOMAR
2600	SPARKYS PIZZA
2610	CRESCENT PLUMBING & SUPPLY
	LIDDELL CONSTRUCTION SUPPLY
	PAINTS PLUS

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

INDUSTRIAL ST 1992

855	CALIFORNIA ST EMP CU 13
867	NORCAL SATELLITE EMPORIUM
915	G W E INC
1160	INDEPENDENT BUSINESS FORMS
1170	HIGRADE CONSTRUCTION INC
	PHOENIX CONSTRUCTORS
	STIMPEL WIEBELHAUS ASSOCIATES
	STIMPEL-WIEBELHAUS INC
	TRINITY EQUIPMENT CO
1180	CREIGHTON, ALAN
	RAPID PACKAGE DELIVERY INC
	SHASTA FIRE EQUIPMENT CO
1200	SLAKEY BROTHERS INC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

CHURN CREEK RD 1987

2200	OAK WAREHOUSE INC
2236	STROUPS CHAIN SAW INC
2250	ALTA MEDICAL SUPPLY
	CARMONA PECK & ANTHONY INC
2304	FRANKLIN ENGINE & PARTS INC
	MT SHASTA HOT SPRINGS SPA
2354	BRYANTS AUTOMOTIVE
2434	LASSEN SHEET METAL INC
2525	TAYLOR MOTORS INC
2534	LOUS AUTO REPAIR
2550	KING RICHARDS INC
2600	HART & STARKEY COMPANY INC
2610	CRESCENT PLUMBING & SUPPLY
	LIDDELL CONSTRUCTION SUPPLY

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

INDUSTRIAL ST 1987

855	CALIF STATE EMP CU #13 CR UN
865	BEN FRANKLIN PRINTING
869	TAYLOR MADE ELECTRO PLATING
935	NORCAL ELECTRIC SUPPLY INC
1160	INDEPENDENT BUSINESS FORMS
1170	STIMPEL-WIEBELHAUS INC
	TRINITY EQUIPMENT CO
1180	SHASTA FIRE EQUIPMENT CO
1200	SLAKEY BROTHERS INC

Target Street	Cross Street	Source
-	✓	POLK DIRECTORY CO

CHURN CREEK RD 1981

25

CHURN CREEK RD —FROM JUNC OF E CYPRESS AV & LAWNCREST RD SOUTH

INDUSTRIAL ST INTERSECTS

2245 Foster B C Inc rd contr 241-3341
Citizens United Together public interest group

26

ZIP CODE 96002
E CYPRESS AV INTERSECTS

2550 Keeline Robt G consulting eng 222-4770
2554 Carter Harrison J ◎ 246-2786
2586 Colonel Sanders Kentucky Fried Chicken 222-4556
2600 Shakey's Pizza Parlor 244-4450
2610 Seco Surveying Equipment Co Inc eng equip & sup 222-1121
Redding True Value Hardware Inc 222-5111
Liddell Construction Supply Inc bldg matls & sup 222-5111
2636★Cutler W
2650 Ern-Jak Printing 221-7763

Target Street	Cross Street	Source
-	✓	POLK DIRECTORY CO

CHURN CREEK RD 1981

2660 Dollars Worth Quality Used Furnitures
222-3990
2680 Marshall Studios fashion two twenty
cosmetics 222-5990
2690 Shasta County Home Finders real est
222-0777
Cal-State Property 222-0778

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

INDUSTRIAL ST 1981

INDUSTRIAL ST —FROM 2200 HILLTOP DR EAST

ZIP CODE 96002

810 No Return

815 Redding Carpet & Linoleum 246-2841
Shaw Jack Plumbing 246-1138

825 K I X E Television Sta 241-7900

835 Salvation Army Thrift Store genl mdse 243-2254

845 Hydraulic Controls Inc 246-2336

855 California State Employees Credit Union No 13 243-1656

865 Fixtures & Faucets 246-4972

869 Taylor Made Plating chrome plating 241-9188

LARKSPUR LA ENDS

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

INDUSTRIAL ST 1981

915 Pacific Telephone (Garage) 241-5383
935 Norcal Electric Supply Inc whol 243-9200
975 Findley Construction Supply 243-6177
Walt's Safety & Construction Supply 244-2573
Enterprise Auto Repair 244-4887

Target Street	Cross Street	Source
-	✓	POLK DIRECTORY CO

CHURN CREEK RD 1976

CHURN CREEK RD —FROM JUNCTION OF E CYPRESS AV AND LAWNCREST RD SOUTH

ZIP CODE 96001

2550 Carter Harrison J 246-2786
2552★Teague Danl R 246-8839
2554 Tabor Beverly
2586 Colonel Sanders Kentucky Fried Chicken 241-9336
2600 Shakey's Pizza Parlor 243-7140
2610 Shasta U-Cart contr concrete 241-1968
Ogden Surveying Equipment Co 241-1121
Redding True Value Hardware 241-3919
Liddell Construction Supply Inc 241-3919

Target Street	Cross Street	Source
-	✓	POLK DIRECTORY CO

CHURN CREEK RD 1976

2636 Gem Realty 243-0424
Herring Virgil R ◎ 243-0424
2660★Baugh Ernest 243-7825
2670 Jones' Fort shoe repair & gun sales 241-4445
Jones Marshall 241-4445
2680 Marshall Studios
2690 Cal-State Properties 246-9171
Shasta County Home Finders 246-9171
2691 Newland Enterprises 241-1307

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

INDUSTRIAL ST 1976

INDUSTRIAL ST —FROM 2200 HILLTOP DR EAST

ZIP CODE 96001

810 Tina's womens clo used
243-9767

825 K I X E Television Sta
241-7900

835 Salvation Army Thrift Store
benl mdse 243-2254

845 Hart Edw J Inc plmb contrs
246-2322

855 California State Employees
Credit Union No 13 243-1656

865 Ostarello's Harley-Davidson
Inc motorcycles 241-7117

935 Ray-Burt Cabinet Co
243-6027

Target Street	Cross Street	Source
-	✓	POLK DIRECTORY CO

CHURN CREEK RD 1971

26

CHURN CREEK RD —FROM JUNCTION OF E CYPRESS AV AND LAWNCREST RD SOUTH

ZIP CODE 96001

2550 Teague Dan R

2552 Whitman Robt L 241-5477

2554 Hursey Walter R 241-7413

Target Street	Cross Street	Source
-	✓	POLK DIRECTORY CO

CHURN CREEK RD 1971

2586 Colonel Sanders Kentucky
Fried Chicken restr
241-9336
2600 Shakey's Pizza Parlor
243-7140
2610 Larabee Joan A
2636 Doherty Robt T Rev ◎
243-0424
2638 Cates Sherman L ◎
246-0835
2650 Hamilton Ray 241-6976
2660 Lamanna James ◎ 241-2879
2670 Al's Custom Upholstery furn
241-4894
2680 Be Jay Interiors 241-6755
Miles Bert J ◎ 241-6755
2690 Vacant
2691 Patterson Marvin L ◎
241-0765

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

INDUSTRIAL ST 1971

24

INDUSTRIAL ST —FROM 2200 HILLTOP DR EAST

ZIP CODE 96001
810 Redding-Red Bluff News Agency 243-5225

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

INDUSTRIAL ST 1971

815 Shaw Jack Plumbing contrs
246-1138
825 Vacant
835 Ye Olde Shoppe gift &
antique shop 243-7395
855 California State Employees
Credit Union No 13 243-1356
935 Ray-Burt Cabinet Co
243-6027

Target Street	Cross Street	Source
-	✓	POLK DIRECTORY CO

CHURN CREEK RD 1964

CHURN CREEK ROAD

(Enterprise)—From junction of Highway 44 and Lawncrest rd south

2550 Vacant
2552 Mikkelsen John E
241-6801
2554 Morey Roger L 243-5363
2585 Kallerup Geo C ◎
243-0582
2610 Townsend Robt A ◎
appraiser
241-3915
2636 Doherty Robt T Rev ◎
243-0424
2638 Cates Sherman L ◎
243-7869
2650 Karr Wm E 243-4324
2660 Vacant
2670 Mifflin H Keith ◎
243-3650
2680 Miles Bert J 243-5671
2691 Patterson Marvin L ◎
CH1-0765

APPENDIX E: QUALIFICATIONS

MR. DAVID BOLE, ENVIRONMENTAL PROFESSIONAL

BOLE AND ASSOCIATES STATEMENT OF QUALIFICATIONS

Bole and Associates

An Environmental Consulting Firm

Environmental Site Assessments **Biological & Botanical Studies**

Threatened & Endangered Species **Wildlife Surveys & Evaluations**

Wetland Delineations & Permits **SWPPP Developer/Practitioner**

Bole and Associates is a professional environmental consulting firm that specializes in property characterization and assessment. Our team of experts pioneered the integration of biology, hydrology, engineering, architecture, and subsurface interface radar to become a leader in innovative site resource evaluation and restoration. Drawing upon our broad experience and expertise we have become a leader in providing evaluation, planning, design, and permitting services to clients in both private and public sectors. Our environmental science staff scientists provide expert CEQA/NEPA Environmental Assessments, Initial Studies, Biological Inventories, Wetland Delineations, and Phase I Environmental Site Assessments in accordance with the latest ASTM Standards, Federal AAI Requirements, and Small Business Administration Procedures. Marcus H. Bole and David H. Bole, Principals, have over 50 years of experience with environmental project management. The State of California has designated Bole and Associates a Disabled Veteran Small Business Enterprise (DVBE # 0000847) and the Department of Veterans Affairs has designated Bole and Associates as a Service Disabled Veteran Owned Small Business (SDVOSB). The National Registry of Environmental Professionals (NREP) has designed Bole & Associates as Registered Environmental Property Assessors.

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104 Brock Drive, Wheatland CA 95692 (530) 633-0117 FAX (530) 633-0119, email: mbole@ aol.com
6898 Penny Way, Browns Valley CA 95918 (530) 415-6623 email: davidhbole@yahoo.com

OUR APPROACH

To meet or exceed our customers expectations by consistently providing high quality, timely and cost effective solutions to your environmental evaluation, planning, management, permitting, design and construction needs.

OUR NUMBER ONE GOAL
IS
SATISFIED CUSTOMERS

Your project will be done right the first time.

Work will be performed by professionals familiar with your requirements.

We will communicate with you during all phases of the project and keep you informed of all important events.

We guarantee compliance with all applicable laws and regulations.

You will be completely satisfied with the quality of our work 100% of the time.

PROFESSIONAL AND COMMUNITY PARTICIPATION

In keeping with our commitment to build our profession and our community, BOLE & ASSOCIATES participate in the following organizations:

American Society for Testing and Materials

Association of Official Analytical Chemists

Association of Environmental Professionals

Beale Air Force Base Restoration Advisory Board

Beale Military Liaison Committee (BMLC)

California Stormwater Quality Association

California Construction General Permit Training Team

Institute of Inspection, Cleaning and Restoration Certification

International Society of Arboriculture

International Society of Indoor Air Quality and Climate

National Geographic Society

National Registry of Environmental Professionals (NREP)

Northern California Society of Environmental Professionals

Redbud Chapter, California Native Plant Society

Society for California Archaeology

Society of American Foresters

Society for Ecological Restoration

The Association for Service Disabled Veterans

Yuba/Sutter Economic Development Committee

ENVIRONMENTAL CONSULTING FIRM PROFILE
KEY PERSONNEL & ASSOCIATES

Marcus H. Bole - *Principal Environmental Scientist and co-founder of BOLE & ASSOCIATES. Mr. Bole is a graduate of North Dakota State University, Fargo, North Dakota with a Master of Science in Environmental Science. He holds a Bachelors Degree in Social Science / Geography from California State University, Sacramento. After a twenty-three year career in the United State Air Force, Lt. Colonel Bole retired from Beale Air Force Base in 1993, his last assignment being Chief, Environmental Management for a 23,000 acre federal military installation. An U. S. Army Corps of Engineers trained and certified wetland delineator, the National Registry of Environmental Professionals (NREP) has certified Mr. Bole as a Registered Environmental Property Assessor. The State of California Department of General Services has designated Mr. Bole as a Disabled Veteran Business Enterprise (DVBE # 0000847). The Veterans Administration has designated Mr. Bole as a Service Disabled Veteran Owned Small Business (SDVOSB).*

Charlene J. Bole – *Environmental Scientist, Chief Executive Officer and co-founder of BOLE & ASSOCIATES. Ms. Bole is a graduate of North Dakota State University, Fargo, North Dakota with a Master of Science in Environmental Science. She holds a Bachelor of Arts in Social Science from California State University, Sacramento. Ms. Bole has over twenty-five years of experience in project management, educational consulting, and classroom instruction. A recognized expert in research development and management, she has supervised work forces of professional educators, government officers and technicians responsible for a wide array of environmental issues. The National Registry of*

Environmental Professionals (NREP) has certified Ms. Bole as a Registered Environmental Property Assessor.

David H. Bole – *Environmental Scientist, Biologist & Wildlife Specialist. David joined Bole & Associates in 199 and became a Principal in 2012. He holds a Bachelor of Science in Biology from California State University, Long Beach. Mr. Bole has extensive experience in research & project management of exotic animals, including rare birds and reptiles. He specializes in the threatened and endangered plant and animal species of California. The National Registry of Environmental Professionals (NREP) has certified Mr. Bole as a Registered Environmental Property Assessor. With over 12 years of experience as an environmental scientist, David has completed over 200 Phase I and Transaction Screens throughout California.*

Skye A. Bole: *Environmental Scientist and co-founder of Bole & Associates. Skye joined BOLE & ASSOCIATES in 2010. Ms. Bole holds a Bachelor of Science from California State University, Sacramento. Ms. Bole has experience in research and project management. She specializes in Environmental Site Assessments and is a certified wetland delineator (Certificate #6424).*

James A. Gibson – *Certified Asbestos Consultant. Jim brings over twenty years of environmental management of hazardous materials experience to B&A. A State of California Certified Asbestos Consultant (CAC) and Site Surveillance Technician (SST), Jim performs all our asbestos inspections and testing in compliance with local, state and federal asbestos regulations. An American Indoor Air Quality Council, Certified Microbial Investigator (CMI), he conducts all mold and bio-hazard inspections and testing in accordance with the highest*

industry standards. B&A specializes in the evaluation of water/fire damaged structures, pre-demolition asbestos surveys, asbestos operations and maintenance plans, and indoor air quality investigations.

Thomas Nicholson – *Licensed General Contractor, structural building defects investigator, geophysical and Subsurface Investigations. Thomas Nicholson is founder of Sierra Nevada GSI, a leading environmental consulting firm specializing in ground penetrating radar (subsurface) investigations. Thomas joined BOLE and ASSOCIATES in 2007 and has held a State of California General Contractor's license since 1978. An expert in all phases of construction, he has investigated structural defects for numerous insurance companies including the California State Automobile Association, Allstate, Farmers, State Farm and the Kemper Insurance companies. Thomas has conducted investigations into the presence of underground petroleum storage tanks (USTs), hazardous waste dump sites, burial grounds, post tension cables and rebar, and mining shafts and geological structures. He is certified by California OSHA as a utility locator.*

PROFESSIONAL REFERENCES

The following individuals may be contacted and can provide you with substantiation of BOLE & ASSOCIATES' technical knowledge, the quality of service provided and on-time delivery of products. We urge you to do so.

TMC Financing (SBA)
Jim Azevedo
3300 Douglas Blvd, Suite 270
Roseville, CA 95771
(916) 724-5002
Jim@tmcfinancing.com

American River Bank
Mary Billingsley
3100 Zinfandel Drive, Suite 450
Rancho Cordova, CA
(916) 231-6120
Mbillingsley@american riverbank.com

Browns Valley Irrigation District
Walter Cotter, General Manager
P.O. Box 34860
Browns Valley, CA 95918
(530) 743-5703
Walter@bvid.org

Meagher & Tomlinson, Realtors
Bill Meagher, Partner
1007 Live Oak Blvd., # A-4
Yuba City, CA 95991
(530) 671-0000
Deal@wmmt.com

Community First Bank
Hinson Thomas
2250 Douglas Blvd., Ste 100
Roseville, CA 95661
(916) 724-2427
Hthomas@Community1bank.com

Roy Hastings & Associates
Roy Hastings
1765 Carson Road
Placerville, CA 95667
(916) 359-0626
roy@rlhastings.com

PROJECTS

Phase I and Transaction Screen Evaluations

The professional team at Bole & Associates has worked together for over twenty years on over 1,800 environmental projects located throughout California. This broad experience makes us one of the most diverse private groups of professionals in our field. We draw upon on in-house expertise in biology, botany, hydrology, forestry, and related fields of environmental science to provide planning, design, permitting, and construction services to both private and public sectors.

At Bole & Associates, project success depends on strong coordination between multiple professions; our work history illustrates this approach. To demonstrate how our experience might be helpful on your project, we have selected the following summaries of our work.

TMC Financing (Small Business Administration): *designed specifications and performed a Level one (Phase I) Environmental Liability Site Assessment, utilizing the "American Society for Testing and Materials" (ASTM 1527-05), AAI federal directives, and the Small Business Administration's Standard Operating Procedures 50-10 5 for the Shell Gas Station, 2556 Lake Tahoe Boulevard, South Lake Tahoe, California. The Phase I included: 1) an evaluation of the historic transfer of title, and regulatory agency information; 2) site inspection of the property to determine existence of possible sources of contamination; 3) an evaluation of possible contingent off-site liabilities; 4) an asbestos survey in accordance with Pacific Mutual's "Guidelines for Asbestos Surveys and O & M Programs", and 4) area/site maps. Point of contact: Jim Azevedo, 3300 Douglas Blvd, Suite 270, Roseville, CA 95661, phone: 916-724-5002, fax: 916-724-5039 and email: Jim@tmcfinancing.com . During the 2000 to 2013 time period conducted over 250 Phase I ESAs and Transactional Screen Analyses for Small Business Administration contracts.*

Meagher & Tomlinson: *designed specifications and performed a Level one (Phase I) Environmental Liability Site Assessment, utilizing the "American Society for Testing and Materials" (ASTM 1527-05), AAI federal directives, and the Small Business Administration's Standard Operating Procedures 50-10 (5) for the Canova Moving and Storage Company, 717 Bridge Street, Yuba City, California. The Phase I included: 1) an evaluation of the historic transfer of title, and regulatory agency information; 2) site inspection of the property to determine existence of possible sources of contamination; 3) an evaluation of possible contingent off-site liabilities; 4) an asbestos survey in accordance with Pacific Mutual's "Guidelines for Asbestos Surveys and O & M Programs", and 4) area/site maps. Point of contact: Bill Meagher, 1007 Live Oak Blvd., Suite A-4, Yuba City, California 95991, phone: 530-671-0000, fax: 530-671-2717 and email: deal@wmmt.com .*

Sunrise Bank of San Diego: *designed specifications and performed a Transactional Screen Process (TSP), utilizing the "American Society for Testing and Materials" (ASTM), and Small Business Administration's Standard Operating Procedures 50-10(4)(B) guidelines for the property located at 819 Bridge Street, Colusa, CA 95932. The TSP included: 1) an interview with property owners that included a comprehensive Environmental Questionnaire form asking specific environmentally related questions that*

requires a visual inspection to complete; 2) site inspection of the property to determine existence of possible sources of contamination; 3) an evaluation of possible contingent off-site liabilities; 4) an environmental records review conducted at appropriate regulatory agencies, and 4) area/site maps and photographs. Point of contact: Harmanjit S. Gosal, 1227 Bridge Street, Suite D, Yuba Cit, CA 95991, phone: 530-755-4413, fax: 530-755-3088 and email: Harman.Gosal@capitolbancorp.com .

Wells Fargo SBA Lending: *designed specifications and performed a Transactional Screen Process (TSP), utilizing the "American Society for Testing and Materials" (ASTM), and Small Business Administration's Standard Operating Procedures 50-10(4)(B) guidelines for the L&A Body Shop, 5031 Franklin Blvd., Sacramento, California. The TSP included: 1) an interview with property owners that included a comprehensive Environmental Questionnaire form asking specific environmentally related questions that requires a visual inspection to complete; 2) site inspection of the property to determine existence of possible sources of contamination; 3) an evaluation of possible contingent off-site liabilities; 4) an environmental records review conducted at appropriate regulatory agencies, and 4) area/site maps and photographs. Point of contact: Mary Norris, 1504 Eureka Road, Suite 370, Roseville, California 95661, phone: 916-780-7054, fax: 916-720-0577 and email: norrism@wellsfargo.com .*

Biological, Botanical, & Wetland Delineations

Clearlake Oaks Eskaton: *Designed and performed investigations and site-specific biological inventories to determine the presence of special status species or habitat for such species that may be affected by development of the Clearlake Oaks Eskaton Senior Housing Project. In addition, several other studies were conducted to include: 1) an investigation to determine the presence of wetlands subject to the jurisdiction of the US Army Corps of Engineers (Corps), pursuant to their authority under Section 404 of the Clean Water Act; and 2) a riparian determination. Permits were obtained from the United States Army Corps of Engineers, California Department of Fish & Game and the Regional Water Quality Control Board. Point of contact: Mr. Roy Hastings, 1610 El Nido Way, Sacramento, CA 95864, and email: roy.hastings@rlhastingsassociates.com . Phone: (916) 359-0626.*

City of Elk Grove: *Designed and conducted biological resources inventories, and conducted feasibility evaluations for the widening of Bond Road, Elk Grove Blvd., Sheldon Road and Grant Line Roads, City of Elk Grove, California. Habitat evaluation and botanical assessments were conducted both before and after the project. Wetland delineations were accomplished and certified by the U. S. Army Corps of Engineers, Sacramento District Regulatory Branch. Point of contact: Melanie J. Halajian, Senior Planner, 10461 Old Placerville Road, Suite 110, Rancho Cordova, CA 95827. (916) 361-8384, MHalajian@PMCWorld.com .*

Yuba County Public Works Department: *Designed and conducted Wetland Delineations and biological inventories for endangered plant and wildlife for the Star Bend Dredging Project on the Feather River, Yuba County, CA. Wetland delineations were accomplished and verified by the U. S. Army Corps of Engineers, Sacramento District Regulatory Branch (point of contact: Erin Hess, 916-557-6740, Erin.E.Hess@spk01.usace.army.mil) Reports were coordinated with the United States Fish & Wildlife Service and the United States Department of Commerce, National Oceanic and Atmospheric Administration. CEQA lead agency was the County o f Yuba (point of contact, Ken Godleski, Senior Engineer, kgodleski@co.yuba.ca.us , phone 530-749-5416)*

Browns Valley Irrigation District: *Designed and conducted Wetland Delineations and biological inventories for endangered plant and wildlife for the Tailwater Recapture Project on the French Dry Creek and Yuba River, Yuba County, CA. Wetland delineations were accomplished and verified by the U. S. Army Corps of Engineers, Sacramento District Regulatory Branch (point of contact: Peck Ha, 916-557-6617, Peck.Ha@usace.army.mil. CEQA lead agency was the Browns Valley Irrigation District (point of contact, Walter Cotter, General Manager, walter@bvid.or , phone 530-743-5703).*

MARCUS H. BOLE, Principal, B&A

EXPERTISE:

Environmental Project Management
Natural Resource Management
Environmental Site Assessment, Phase I and Phase II
Wetland Delineation, Mitigation, and Permitting

EDUCATION:

Masters Degree in Environmental Science
  North Dakota State University, Fargo, 1976
Baccalaureate in Social Science, Political Science & Geography
  California State University, Sacramento, 1970
Registered Environmental Property Assessor (REPA)
Certificate Program, Site Assessment and Remediation, UC Davis
Certificate Program, Land Use and Environmental Planning, UC Davis
California Community College Instructor Credential (Life), Environmental Sciences
Certified (OSMB) Disabled Veteran Business Enterprise (DVBE)
  California Department of General Services (#0000847)
Certified OSHA Hazardous Materials
Certified FAA Airline Transport Pilot (#2168155)

PROFESSIONAL HISTORY:

Bole & Associates, Principal, 1991 - Present
U. S. Federal Government Manager of Environmental Engineering,
  Compliance and Community Planning, 1970 - 1993
California State Division of Forestry, Engineer, 1966 - 1970

REPRESENTATIVE EXPERIENCE:

Mr. Bole has over thirty-five years of experience in environmental project management. A recognized expert in state and federal agency environmental regulations and procedures, he has directed operations throughout Northern California and Southern California. He has supervised work forces of professional engineers, scientists and technicians responsible for pollution monitoring, permitting, abatement, environmental impact analysis, natural resource restoration programs and hazardous waste characterization, storage and disposal. After a distinguished twenty-three year career in the United States Air Force as Chief, Environmental Management Division, Beale Air Force Base, Mr. Bole retired in the rank of Lieutenant Colonel and started Bole & Associates, Registered Environmental Assessors in Wheatland, Yuba County, California.

CHARLENE J. BOLE, Principal, B&A

EXPERTISE:

Environmental Project Management
Environmental Site Assessments (Phase I & II)
Threatened and Endangered Species
Wetland Delineation, Mitigation and Permitting

EDUCATION:

Masters Degree in Environmental Science
  North Dakota State University, Fargo, 1979
Baccalaureate in Social Science
  California State University, Sacramento, 1974
Graduate Course work in Environmental Sciences, Botany
Registered Environmental Property Assessor (REPA)
State of California Standard Teaching Credential
State of California Pupil Personnel Credential
California Community College Instructor, Psychology
California Community College Counselor Credential

PROFESSIONAL HISTORY:

Bole & Associates, Principal, 1991 - Present
Consultant, Instructor for US Army, Department of Defense, Belgium, 1988 - 1991
Senior Project Manger, Environmental Development Center, Belgium, 1988 - 1991
Consultant and Instructor for Department of Defense, Japan, 1985 - 1987
Teacher, Wheatland School District, CA, 1980 - 1984
Counselor, Minot Public Schools, ND, 1977 - 1979

REPRESENTATIVE EXPERIENCE:

Ms. Bole has over twenty-five years of experience in environmental project management, environmental science instruction and consulting. She has directed major environmental projects for the Department of Defense, both in the United States and in foreign countries. A recognized expert in research development and management, she has supervised work forces of professional scientists and technicians responsible for a wide array of environmental issues in Northern California and Yuba County. Her areas of expertise include wildlife ecology, regulatory compliance, natural resource and habitat conservation planning, and the delineation of waters of the United States. Her organizational skills have consistently resulted in finding the most cost effective means for project implementation and completion.

DAVID H. BOLE, Senior Wildlife Biologist, B&A

EXPERTISE:

Wildlife Biology
Environmental Project Management
Natural Resource Conservation Management
Environmental Site Assessment, Phase I ESA
Wetland Delineation, Mitigation, and Permitting

EDUCATION:

Baccalaureate in Biology
California State University Long Beach, 2000
Graduate Studies leading to Masters Degree, Biology
California State University Long Beach, In Progress
Registered Environmental Property Assessor (REPA)
Certified Wetland Delineator, U. S. Army Corps of Engineers
Certified Open Water SCUBA, Advanced PADI

REPRESENTATIVE EXPERIENCE:

As senior staff biologist, David H. Bole has been instrumental in the implementation of a wide variety of wildlife surveys, habitat evaluations, wetland determinations, and natural resource management projects. Based on his advanced knowledge of herpetology, David was selected to lead a team of biologists in support of studies of the Salton Sea for the San Diego Museum of Natural History. He has conducted comprehensive Natural Environment Studies for the California Department of Transportation, and participated in the evaluation of spawning and rearing habitats associated with the Yuba River Fisheries Habitat Enhancement Project. A recognized expert in the field of environmental science, David is a State of California Registered Environmental Assessor who has completed over 200 Phase I Environmental Site Assessments in Northern and Southern California. As a project manager, David pioneered the integration of biology, hydrology, subsurface interface radar and computer science in providing environmental planning services for private and public agencies throughout California. During the early stages of project design, David has conducted over 300 endangered wildlife surveys and evaluations that have resulted in the avoidance of costly special status species and wetland mitigation measures while preserving the natural habitat associations in the Central Valley.

JAMES A. GIBSON, Certified Asbestos Consultant, B&A

EXPERTISE:

Certified Asbestos Surveys
Sampling & Packaging Samples for Lab Delivery
Indoor Air Quality Evaluations (Mold)
Air Clearance Sampling for Mold & Asbestos
BioTrace Clearance Sampling for Bio-Hazard & Sewage Remediation

EDUCATION & CERTIFICATIONS:

State of California Certified Asbestos Consultant, DOSH #01-2960
Certified Microbial Investigator (American Indoor Air Quality Assoc.)
Forensic Analytical Workshop, Microbial Contamination
Asbestos Contractor Supervisor Refresher

REPRESENTATIVE EXPERIENCE:

Jim brings over twenty years of environmental management of hazardous materials experience to B&A. A State of California Certified Asbestos Consultant (CAC) and Site Surveillance Technician (SST), Jim performs all our asbestos inspections and testing in compliance with local, state and federal asbestos regulations. An American Indoor Air Quality Council, Certified Microbial Investigator (CMI), he conducts all mold and bio-hazard inspections and testing in accordance will the highest industry standards. Jim has conducted hundreds of asbestos inspections in Yuba County with a list of clients that include: Yuba County Public Works, Yuba County Airport, Yuba County Risk Management, Yuba County Planning Department, Yuba County Water Agency, and numerous public agencies in Sutter County. B&A specializes in the evaluation of water/fire-damaged structures, pre-demolition asbestos surveys, asbestos operations and maintenance plans, and indoor air quality investigations. We provide detailed written reports that guide and assist the abatement/remediation contractors throughout the abatement process. Jim also conducts post remediation/clearance testing upon project completion.

Bole & Associates
An Environmental Consulting Company

Labor Rates, Bole & Associates

Rates Effective October 1, 2012

Project Manager	**$95 per Hour**
Environmental Technician (Asbestos)	**$65 per Hour**
Environmental Scientist (Phase I)	**$95 per Hour**
Archaeologist	**$95 per Hour**
Wildlife Biologist	**$85 per Hour**
Botanist	**$85 per Hour**
Hydrologist	**$95 per Hour**
Clerical	**$30 per Hour**

BOLE & ASSOCIATES are covered by Worker's Compensation and Liability Insurance, Commercial General Liability, and Profession Liability policies issued through Frenkel of California, 350 Hudson Street, 4th Floor, New York, New York 10014. Phone 212-488-1869, Fax 212-488-0246, Contact Renee Molina at: email: rmolina@frenkel.com

Client#: 71524 BOLEASSO

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 05/20/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer any rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Frenkel & Company
350 Hudson Street
4th Floor
New York, NY 10014

CONTACT NAME: Christi Nistler
PHONE (A/C, No, Ext): 212-488-0230 FAX (A/C, No): 646-514-9597
E-MAIL ADDRESS: cnistler@frenkel.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Westchester Surplus Lines Co	10172
INSURER B : State Compensation Ins. Fund	35076
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Bole and Associates
6898 Penny Way
Browns Valley, CA 95918

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			G24299223004	07/09/2018	07/09/2020	EACH OCCURRENCE	$1,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$50,000
	X Contractors Poll.						MED EXP (Any one person)	$10,000
	X Occurrence Form						PERSONAL & ADV INJURY	$1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$2,000,000
	X POLICY PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$2,000,000
	OTHER:							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	ANY AUTO						BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB / OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB / CLAIMS-MADE						AGGREGATE	$
	DED RETENTION $							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			901110319	04/19/2019	04/19/2020	X PER STATUTE / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N: Y	N / A					E.L. EACH ACCIDENT	$1,000,000
	(Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$1,000,000
							E.L. DISEASE - POLICY LIMIT	$1,000,000
A	Professional Liability			G24299223004	07/09/2018	07/09/2020	Each Claim: $1,000,000 Ded.: $2,500	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Proof of Insurance

CERTIFICATE HOLDER

Proof of Insurance

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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APPENDIX F: SUPPORTING DOCUMENTATION

NRCS WEB SOIL SURVEY SOILS MAP

NWI MAP

NFA DOCUMENTATION FOR 2323 CHURN CREEK ROAD

Soil Map—Shasta County Area, California
(APN 067-110-052 Soils Map)

Map Scale: 1:2,110 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Shasta County Area, California
Survey Area Data: Version 14, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 26, 2015—Jun 26, 2015

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CfA	Churn gravelly loam, deep, 0 to 3 percent slopes	7.7	72.8%
RcA	Red Bluff gravelly loam, moderately deep, 0 to 3 percent slopes	0.5	5.0%
RcB	Red Bluff gravelly loam, moderately deep, 3 to 8 percent slopes	2.3	22.2%
Totals for Area of Interest		**10.5**	**100.0%**

U.S. Fish and Wildlife Service
National Wetlands Inventory

NWI Map APN 067-110-052

January 6, 2020

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

California Regional Water Quality Control Board

Central Valley Region

Steven T. Butler, Chair

Winston H. Hickox
Secretary for Environmental Protection

Redding Branch Office
Internet Address: http://www.swrcb.ca.gov/~rwqcb5
415 Knollcrest Drive, Suite 100, Redding, California 96002
Phone (530) 224-4845 • FAX (530) 224-4857

Gray Davis
Governor

6 July 1999

Mr. Richard Yehle
U.S. Postal Service
3775 Industrial Boulevard
West Sacramento, CA 95799-0045

CASE CLOSURE, UNDERGROUND STORAGE TANK CASE #45267, U.S. POSTAL SERVICE – VOMA, 2323 CHURN CREEK ROAD, REDDING, SHASTA COUNTY

Dear Mr. Yehle,

This letter confirms the completion of a site investigation and remedial action for the underground storage tank(s) formerly located at the above described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank(s) are greatly appreciated.

Based on the information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Section 2721(e) of Title 23 of the California Code of Regulations.

Please contact our office, if you have any questions regarding this matter.

Sincerely,

GARY M. CARLTON
Executive Officer

by: JAMES C. PEDRI
Assistant Executive Officer
Shasta Cascade Watershed

cc's + enclosure: Enclosed

CHRON

California Regional Water Quality Control Board

Central Valley Region

Steven T. Butler, Chair

Winston H. Hickox
Secretary for Environmental Protection

Gray Davis
Governor

Redding Branch Office
Internet Address: http://www.swrcb.ca.gov/~rwqcb5
415 Knollcrest Drive, Suite 100, Redding, California 96002
Phone (530) 224-4845 • FAX (530) 224-4857

TO: James C. Pedri, P.E.
Assistant Executive Officer

FROM: Ray Bruun, P.E.
Associate WRC Staff Engineer
UG/AG TANKS, SLIC WQC Unit

DATE: 6 July 1999

SIGNATURE: Ray Bruun

SUBJECT: ***CASE CLOSURE SUMMARY FOR UNDERGROUND STORAGE TANK (UST), CASE NUMBER 45267, U.S. POSTAL SERVICE-VOMA, REDDING MAIN MAIL FACILITY, 2323 CHURN CREEK ROAD, SHASTA COUNTY***

Introduction

On 21 October 1998, two underground storage tanks were removed from the Redding Main Mail Facility. The tanks were installed circa 1988. One was a 12,000 gallons and held gasoline, the other was 1,000 gallons and was intended for motor oil. Both tanks were double-walled fiberglass. The motor oil tank was never used. In an Underground Storage Tank Removal Report, dated 16 March 1999, the site consultant (Lowney Associates) concluded that an insignificant volume of fuel had been released and the small amount remaining at the site does not present a significant threat to human health or the environment. The responsible party requested closure of the case in a 1 June 1999 letter to the Board.

UST Removal and Testing Summary

12,000-gallon gasoline tank

The tank was in good condition. Slight gasoline odors were noted in backfill material (pea gravel) that was removed from the tank pit. Native soil was not encountered during the excavation of this tank, only pea gravel and groundwater (the water table was about six feet below grade). As a result, the Shasta County on-scene inspector allowed the removal of the 12,000-gallon tank to proceed without soil sampling. The following concentrations of gasoline related compounds were detected in a groundwater sample collected from the tank pit (given in µg/l): TPH-g, 150; benzene, 2.2; toluene, 12; ethylbenzene, 2.6; xylenes, 14; and methyl tertiary-butyl ether (MTBE), 120.

1,000-gallon motor oil tank

The tank was in good condition. No odors or staining were noted. One soil sample (TS-1) was retrieved from the excavation sidewall. A groundwater grab sample (GW-2) was also taken. Both samples were nondetect for gasoline (including MTBE), diesel, and total recoverable petroleum hydrocarbons.

Piping

The piping (double-walled) was rinsed and grouted in-place. No soil samples were collected.

ATTACHMENT F - ENDANGERED SPECIES

Bole & Associates
An Environmental Consulting Firm

January 6, 2020

Center of Hope Apartments, LLC
Attn: Daniel Knott
1011 Parkview Avenue, Suite A
Redding, CA 96001

BIOLOGICAL ASSESSMENT AND WETLAND DETERMINATION FOR A PORTION OF SHASTA COUNTY APN 067-110-052, LOCATED IN 071-500-037, LOCATED IN SECTION 5, TOWNSHIP 31 NORTH, RANGE 4 WEST, 1201 INDUSTRIAL STREET, REDDING, SHASTA COUNTY, CA 96002. BA FILE 1223-2019-1888.

INTRODUCTION

During December of 2019 and January of 2020, a Biological Assessment was conducted on an approximately 3.25-acre portion of Shasta County APN 067-110-052, located on the U.S. Geological survey (USGS) Enterprise 7.5-minute topographic quadrangle Section 5, Township 31 North, Range 4 West, (Enclosure B, Figure 1). Particular attention was focused upon the project's potential impact to federal and state special-status plants and wildlife species and their habitats. Historically, the project area has been undeveloped land consisting of blue oak-foothill pine woodlands with a ruderal grass understory.

A records search was completed prior to field surveys of the United States Fish & Wildlife Service's *Federal Endangered and Threatened Species List* (IPaC, NEPA) for the Enterprise7 ½ minute quadrangle (Enclosure D). The USFWS document lists plants and wildlife that have Federal special species status. The IPaC data base lists revealed several special status wildlife species with a potential to occur onsite. These species and their potential to use onsite habitats are future discussed in Table 1.

Field studies were conducted on foot making observations and noting habitat conditions, surrounding land uses, and plant and wildlife species. In accordance with guidance set forth in the United States Army Corps of Engineer's *1987 Wetlands Delineation Manual* a wetland determination was conducted. Field surveys were conducted to determine the presence of sensitive species, and/or suitable habitat for sensitive species (e.g. elderberry shrubs, riparian habitats, etc.). These surveys also included ocular reconnaissance of the entire study area and buffer zones for nesting (or burrowing) raptors and owls (*Strix occidentalis caurina).*

PROJECT DESCRIPTION:

Center of Hope Apartments, LLC, proposes to develop an approximately 3.25-acre portion of Shasta County APN 067-110-052 ("Parcel B" as referred to on the Site Plan) to include two (2) residential housing units, parking areas, and landscaping as shown on the proposed Concept

Sketch. The proposed action will involve grading and leveling portions of the site and may involve the removal of several oak and pine trees as part of the development process. Construction will be scheduled for late Spring, 2020. Work will be restricted to day-light hours only. Construction equipment will consist of backhoes, flatbed trucks, excavators, dump trucks, portable generators, air compressor, pumps, vibratory roller compactors, personal vehicles, power tools, other equipment.

EXISTING SETTING

Habitat Description

The subject property is located in the foothills of the Sierra Nevada Mountain range. The site consists of relatively flat terrain. APN 067-110-052 has been divided into three (3) portions: Parcel A consists of the western portion of the parcel and is currently undergoing site development into housing; Parcel B, located centrally on the parcel, is the main focus of this study and consists of undeveloped oak-pine woodland; Parcel C, located in the eastern portion of the site, consists of pine-oak woodland and is not currently under consideration for site development. The attached Site Map shows the layout of these three (3) divisions of APN 067-110-052. Topography within the confines of Parcel B consists of relatively flat terrain at an approximate elevation of 555 feet. The vegetation series, according to Sawyer and Keeler-Wolf (1995), includes Oak-Pine Woodlands with a ruderal grass understory. A number of large and small diameter blue oak and gray pine were located throughout the site. A perennial drainage way runs north-south through Parcel B and contains cattails and other obligate wetland plants. This feature is to be avoided via a 50-foot setback.

Oak-Foothill Pine Natural Community

The oak-foothill pine natural community is found within the project area. These communities are dominated by foothill pines and interior live oak. Tree density can range from open savanna with scattered trees to a closed-canopy forest. Other associated tree species include interior live oak, California buckeye, and valley oak. The understory consists primarily of annual grasses and forbs, sometimes with a shrub component. Due to the phenology of these grasses they tend to dominate the landscape. Besides the brome, barley and ryegrass, other grasses found included barbed goatgrass (*Aegilops triuncialis*). Non-native forbs found at the site were yellow starthistle (*Centaurea solstitialis*), filaree (*Erodium* spp.), and vetch (*Vicia* spp.). The shrub understory may include buckbrush, redberry, poison oak, silver bush lupine, and blue elederberry.

Wildlife Communities:

The oak-foothill pine natural community supports many common wildlife species, including the band-tailed pigeon, acorn woodpecker, western scrub-jay, oak titmouse, mule deer, bobcat, and striped skunk. Species observed in these habitats include American crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), western scrub jay (*Aphelocoma coerulescens*), turkey vulture (*Cathartes aura*), western meadowlark (*Sturnella neglecta*), black-tailed hare (*Lepus californicus*), coyote (*Canis latrans*), Botta's pocket gopher (*Thomomys bottae*) and the western fence lizard (*Sceloporus occidentalis*). Raptors observed include the

black-shouldered kite (*Elanus caeruleus*), red-tailed hawk (*Buteo jamaicensis*), and the American kestrel (*Falco sparverius*).

Special Status Species:

The following discussion describes the plant and animal species that have been afforded special recognition by federal, state, or local resource agencies or organizations. Listed and special-status species are of relatively limited distribution and may require specialized habitat conditions. Listed and special-status species are defined as one of the following:

- Listed or proposed for listing under the state or federal Endangered Species Acts.
- Protected under other regulations (e.g., Migratory Bird Treaty Act).
- California Department of Fish and Game (CDFG) Species of Special Concern.
- Receive consideration during environmental review under CEQA.

Special-status species were considered for this analysis based on field survey results, a review of the Federal Endangered and Threatened Species list for El Dorado County, California Natural Diversity Database (CNDDB), CNPS literature, and database information provided by the U. S. Fish and Wildlife Service (IPaC Federal listed species data base for Enterprise 7 ½ Minute Quad). Over ten hours of onsite surveys did not reveal the presence of special status wildlife or plant species or their specific micro-habitat.

Sensitive Habitats:

Sensitive habitats include those that are of special concern to resource agencies and those that are protected under NEPA, Section 1600 of the California Fish and Game Code, or Section 404 of the Clean Water Act. A biologist from Bole & Associates conducted over ten hours of field survey of the study area during December of 2019 and January of 2020. The project area was systematically surveyed to ensure total search coverage, with special attention given to identifying those portions of the study area with the potential for supporting special-status species and sensitive habitats. No sensitive habitats were found within the footprint of the proposed development.

Determination of Waters of the United States

The intent of this determination is to identify wetlands and "other waters of the United States" that are present within the Study Area that could fall under the regulatory jurisdiction of the U. S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act. The *1987 Corps of Engineers Wetlands Delineation Manual* identifies several methodologies and combinations of methodologies that can be utilized in making jurisdictional determinations. Marcus H. Bole & Associates has employed the Routine On-Site Determination methodology for this study (as supplemented by the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*, dated December 2006). The Routine On-Site Determination method uses a three-parameter approach (vegetation, soils and hydrology) to identify and delineate the boundaries of jurisdictional wetlands. To be considered a wetland, all

three positive wetland parameters must be present. These parameters include (1) a dominance of wetland vegetation, (2) a presence of hydric soils, and (3) hydrologic conditions that result in periods of inundation or saturation on the surface from flooding or ponding. Further description of these parameters is provided below:

1) Vegetation. Wetland vegetation includes those plants that possess physiological traits that allow them to grow and persist in soils subject to inundation and anaerobic soil conditions. Plant species are classified according to their probability of being associated with wetlands. Obligate (OBL) wetland plant species almost always occur in wetlands (more than 99 percent of the time), facultative wetland (FACW) plant species occur in wetlands most of the time (67 to 99 percent), and facultative (FAC) plant species have about an equal chance (33 to 66 percent) of occurring in wetlands as in uplands. For this study, vegetation was considered to meet the vegetation criteria if more than 50% of the vegetative cover was FAC or wetter. A perennial drainage was noted running north-south through Parcel B; this feature contained cattails and other obligate wetland plants. Apart from this feature, no wetland vegetation was noted on the subject property. No other wetland habitats were found near or within the project site during our onsite evaluations. There was no sign of vernal pools or vernal swales on the property.

2) Hydric Soils. Hydric soils are saturated, flooded, or ponded in the upper stratum long enough during the growing season to develop anaerobic conditions and favor the growth of wetland plants. Hydric soils include gleyed soils (soils with gray colors), or usually display indicators such as low chroma values, redoximorphic features, iron, or manganese concretions, or a combination of these indicators. Low chroma values are generally defined as having a value of 2 or less using the Munsell Soil Notations (Munsell, 1994). For this study a soil was considered to meet the hydric soil criteria for color if it had a chroma value of one or a chroma of two with redoximorphic features, or if the soil exhibited iron or manganese concretions. Redoximorphic features (commonly referred to as mottles) are areas in the soils that have brighter (higher chroma) or grayer (lower chroma) colors than the soil matrix. Redoximorphic features are the result of the oxidation and reduction process that occurs under anaerobic conditions. Iron and manganese concretions form during the oxidation-reduction process, when iron and manganese in suspension are sometimes segregated as oxides into concretions or soft masses. These accumulations are usually black or dark brown. Concretions 2 mm in diameter occurring within 7.5 cm of the surface are evidence that the soil is saturated for long periods near the surface. Onsite soils were identified as Churn gravelly loam, 0 to 3 percent slopes; Red Bluff gravelly loam, 0 to 3 percent slopes; and Red Bluff gravelly loam, 3 to 8 percent slopes. These are well drained soils; surface soils are moderately permeable. With the exception of the perennial drainage feature, onsite soils did not exhibit hydric indicators (see Enclosure C).

3) Hydrology. Wetlands by definition are seasonally inundated or saturated at or near the surface. In order for an area to have wetland hydrology, it has to be inundated or saturated for 5% of the growing season (approximately 12 days) (USDA, 1967). Indicators include visual soil saturation, flooding, watermarks, drainage patterns, encrusted sediment and plant deposits, cryptogrammic lichens, and algal mats. Apart from the perennial drainage feature, no hydrologic indicators were noted onsite.

Wetland Determination Results

Using the methodologies described in the *1987 Wetland Delineation Manual*, Bole & Associates found one wetland feature associated with the perennial drainage way running north-south through Parcel B. This feature will be avoided with a 50-foot setback and will not be impacted during the proposed site development.

POTENTIAL PROJECT IMPACTS

Site development as proposed will not result in impacts to listed federal or state plant or wildlife species. Impacts to common vegetation and wildlife habitats are as follows:

Common Vegetation and Wildlife Habitats:

Project implementation may result in unanticipated impacts to wildlife habitat.

Project implementation will result in alterations (removal) of ruderal grasslands and trees, both pine and oak. These habitats are regionally widespread, and the common wildlife species utilizing these habitats would likely be displaced to adjacent offsite habitats and therefore not adversely affected by the project. The development of this site will not interfere with the movement of any native resident or migratory fish or wildlife species, or result in impacts to established native resident or migratory wildlife corridors. The project will not affect the use of native wildlife nursery sites.

Special-Status Species:

Special-status species were considered for this analysis based on field survey results, a review of the California Natural Diversity Database (CNDDB), the United States Fish & Wildlife Service's IPaC species list, and CNPS literature. Based on the specific habitat characteristics of subject property, no plant or wildlife species will be impacted by this project.

Table 1: Status of Species

Common Name *(Scientific Name)*	**Federal Listing Status**	**Critical Habitat Status & General Habitat Description**	**Determination of Effects**
INVERTEBRATES			
Valley elderberry longhorn beetle *(Desmocerus californicus dimorphus)*	Threatened	Critical Habitat: Final designated August 8, 1980. None within action area. Habitat Description: Blue elderberry shrubs usually associated with riparian areas.	No blue elderberry shrubs observed within 1000 feet of action area. **No effects.**
CRUSTACEANS			
Conservancy fairy shrimp (*Branchinecta*	Endangered	Critical Habitat: Final designated September 19, 1994. None within action area. Habitat	No suitable habitat exists within or near the action area, none

Common Name *(Scientific Name)*	**Federal Listing Status**	**Critical Habitat Status & General Habitat Description**	**Determination of Effects**
conservatio)		Description: Inhabit astatic pools located in swales formed by old, braided alluvium.	observed. **No effects**
Vernal Pool fairy shrimp (*Branchinecta lynchi)*	Threatened	Critical Habitat: Final designated September 19, 1994. None within action area. Habitat Description: Inhabit small, clear-water pools and grassed swales.	No suitable habitat exists within or near the action area, none observed. **No effects**
Vernal Pool Tadpole shrimp (*Lepidurus packardi)*	Endangered	Critical Habitat: Final designated September 19, 1994. None within action area. Habitat Description: Pools commonly found in grass bottomed swales of unplowed grasslands.	No suitable habitat exists within or near the action area, none observed. **No effects**
FISHES			
Delta Smelt *(Hypomesus transpacificus)*	Threatened	Critical Habitat: Final designated December 19, 1994. None within action area. Habitat Description: Sacramento-San Joaquin Delta, most often salinities <2ppt.	There are no rivers or streams within the project area, none observed. **No effects**
Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha)*	Threatened	NOAA Critical Habitat designation for seven Evolutionarily Significant Units (ESUs) of Salmon & Steelhead, September 2, 2005: Habitat Description: Sacramento River and its tributaries.	There are no rivers or streams within the project area, none observed. **No effects**
Sacramento River winter-run Chinook salmon *(Oncorhynchus tshawytscha)*	Endangered	NOAA Critical Habitat designation for seven Evolutionarily Significant Units (ESUs) of Salmon & Steelhead, September 2, 2005: Habitat Description: Sacramento River.	There are no rivers or streams within the project area, none observed. **No effects**
AMPHIBIANS			
California Red-legged Frog *(Rana draytonii)*	Threatened	Critical Habitat: Final designated May 23, 1996. Habitat Description: In or near sources of deep water with dense, shrubby or emergent riparian vegetation. Must have access to estivation habitat.	No suitable habitat within or near the action area, none observed. **No effects**
BIRDS			
Northern Spotted Owl *(Strix occidentalis*	Threatened	Critical Habitat: Final designated December 4, 2012. Habitat Description: Old-growth	No suitable habitat within or near the action area, none

Common Name *(Scientific Name)*	Federal Listing Status	Critical Habitat Status & General Habitat Description	Determination of Effects
caurina)		forests or mixed stands of old-growth and mature trees. Prefers high, multistory canopy dominated by big trees, many trees with cavities.	observed. **No effects**
PLANTS			
Slender Orcutt Grass (*Orcuttia tenuis*)	Threatened	Critical Habitat: Final Designated February 10, 2006. Habitat Description: Vernal pools, often with gravelly substrate.	There are no vernal pools within or near the action area, none observed. **No effects**

Other Raptors and Migratory Birds:

Raptor species, including the red-tailed hawk and barn owl forage within the ruderal non-native grasslands (onsite). Native and non-native trees within the site are too small to provide nesting habitat for these species, and no nests have been observed to date.

Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*):

The valley elderberry longhorn beetle (VELB) is a federal-listed threatened species. This species inhabits elderberry *(Sambucus sp*.) shrubs and trees associated with riparian habitats throughout the Central Valley and foothill regions of California. Botanical evaluations did not reveal the presence of elderberry shrub within the boundaries of the subject property.

Central Valley Vernal Pools:

Central Valley vernal pools provide habitat for several species of fairy shrimp (federal-listed threatened and endangered) as well as sensitive plant species native to California.
The California Department of Fish and Game, Natural Diversity Data Base does not identify suitable habitat for vernal pools or swales within 25 miles of the subject property, and no evidence of onsite vernal pooling was revealed during onsite surveys.

FINDINGS AND RECOMMENDATIONS

Findings:

Known potential biological constraints for the project site include:

1) No potential biological constraints were identified for this site. The site does not support sensitive habitats associated with special status plant or wildlife species. There are no wetlands or riparian habitats within the proposed footprint of the development.

Recommendations:

1) Pre-construction surveys for nesting raptors should be conducted on trees within 500 feet of the subject property if construction activities occur between March 1 and September 15 pursuant to California Department of Fish & Game requirements. These surveys should be accomplished no later than 7 days prior to commencement of grading activities.

Implementation of the above mitigation measure would ensure the reduction of impacts to a less than significant level.

2) Impacts to the perennial drainage feature will be avoided via a 50-foot setback. No impacts to this feature are anticipated.

Implementation of the above mitigation measure would ensure the reduction of impacts to a less than significant level.

This concludes our biological evaluation of the Center of Hope Apartments development project, involving an approximately 3.25-acre portion of Shasta County APN 067-110-052, located on the U.S. Geological survey (USGS) Enterprise 7.5-minute topographic quadrangle (Section 5, Township 31 North, Range 4 West). The property is further defined as being located at 1201 Industrial Street in Redding, CA 96002.

If you have any questions concerning our findings please feel free to contact me directly at: Bole & Associates, Attn: David Bole, 6898 Penny Way, Browns Valley, CA 95918, phone 530-415-6623, fax 530-633-0119, email: davidhbole@yahoo.com. For a complete copy of the Statement of Qualifications of the staff members conducting this evaluation please visit our website at: mhbole.com.

Respectfully Submitted:

David H. Bole, Principal
Environmental Scientist
Senior Wildlife Biologist

REFERENCES

Barbour, Michael G., and Jack Major. 1995. *Terrestrial Vegetation of California.* California Native Plant Society, University of California, Davis. 1030 pp.

CDFG. 2019. *Rarefind Natural Diversity Data Base*. California Department of Fish and Game, Natural Heritage Division. June 2019.

CDFG. 2000. *Recommended Timing and Methodology For Swainson's Hawk Nesting Surveys in California's Central Valley*. Swainson's Hawk Technical Advisory Committee. May 31, 2000.

CDFG. *Staff Report regarding Mitigation for Impacts to Swainson's Hawks (Buteo Swainsoni) in the Central Valley of California.* 1994.

Environmental Laboratory. 1987. *Corps of Engineers Wetland Delineation Manual*, Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Miss.

Hickman, James C. 1993. *The Jepson Manual, Higher Plants of California,* University of California Press. Berkeley, California. 1300 pp.

Holland, Robert F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California.* State of California, The Resources Agency, Department of Fish and Game, Sacramento, California.

Kartesz, J. T. *A Synonymized Checklist of the Vascular Flora of the United States, Canada and Greenland,* University of North Carolina Press, 1994.

Munz, P. A. and D. D. Keck. 1959. *A California Flora*. University of California Press, Berkeley, CA. 1681 pp. plus supplement.

Natural Diversity Data Base, Special Plants List, Natural Heritage Division, California Department of Fish and Game, February, 1994. Records search, RAREFIND, December 2019, Enterprise and surrounding quads as requested.

Ornduff, Robert. 1974. *An Introduction of California Plant Life.* University of California Press, Berkeley, CA. 152 pp.

Reed, P. B., Jr. 1988. *National List of Plant Species That Occur in Wetlands: California (Region O).* U. S. Fish Wildlife Service Biol. Rep. 88 (26.10). 135 pp.

Remsen, J.V. 1978. *Bird species of special concern in California, an annotated list of declining or vulnerable bird species*. California Department of Fish and Game, Nongame Wildlife Investigation Project PR W-54-R-9, Report No. 78-1 (June 1078). 52 pp.

Sawyer, John O., and Todd Keeler-Wolf. 1995 A *Manual of California Vegetation,* California Native Plant Society, Sacramento, California. 470 pp.

Skinner, Mark W., and Bruce M. Pavlik. 1994. *California Native Plant Society's INVENTORY of Rare and Endangered Vascular Plants of California,* February 1994 / Special Publication No. 1 / Fifth Edition, California Native Plant Society, Sacramento, California. 338 pp.

Williams, D. F. 1986. *Mammalian Species of Special Concern in California.* Wildlife Management Division Administrative Report 86-1. State of California, The Resources Agency, Department of Fish and Game.

Zarn, M. 1974. *Burrowing Owl*. U. S. Department of Interior, Bureau of Land Management. Technical Note T-N 250. Denver, Colorado. 25pp.

LIST OF ENCLOSURES

ENCLOSURE A: SITE PHOTOS

ENCLOSURE B: SITE MAPS AND AERIAL PHOTOS

ENCLOSURE C: SOIL INFORMATION

ENCLOSURE D: FEDERAL SPECIES LISTS AND DATABASES

ENCLOSURE A: SITE PHOTOS

Parcel A-under development

View of drainage

View of Parcel B

View of Parcel B

View of Parcel B

View of Parcel C

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SITE: APN 067-110-052
ITEM: SITE PHOTOS
DATE: 1/2/2020

PLATE: 1

ENCLOSURE B: SITE MAPS AND AERIAL PHOTOS

<u>Site Location Map</u>: APN 067-110-052, Redding, Shasta County, CA 96002. Section 5, Township 31 North, Range 4 West, Enterprise (1969) USGS Quadrangle.

Figure 1

<u>Vicinity Map</u>: APN 067-110-052. Site is shown surrounded by a counseling center, an auto detailing shop, a food bank, a HVAC supply warehouse, undeveloped land, a school, a home improvement warehouse, and a U. S. Post Office.

Figure 2

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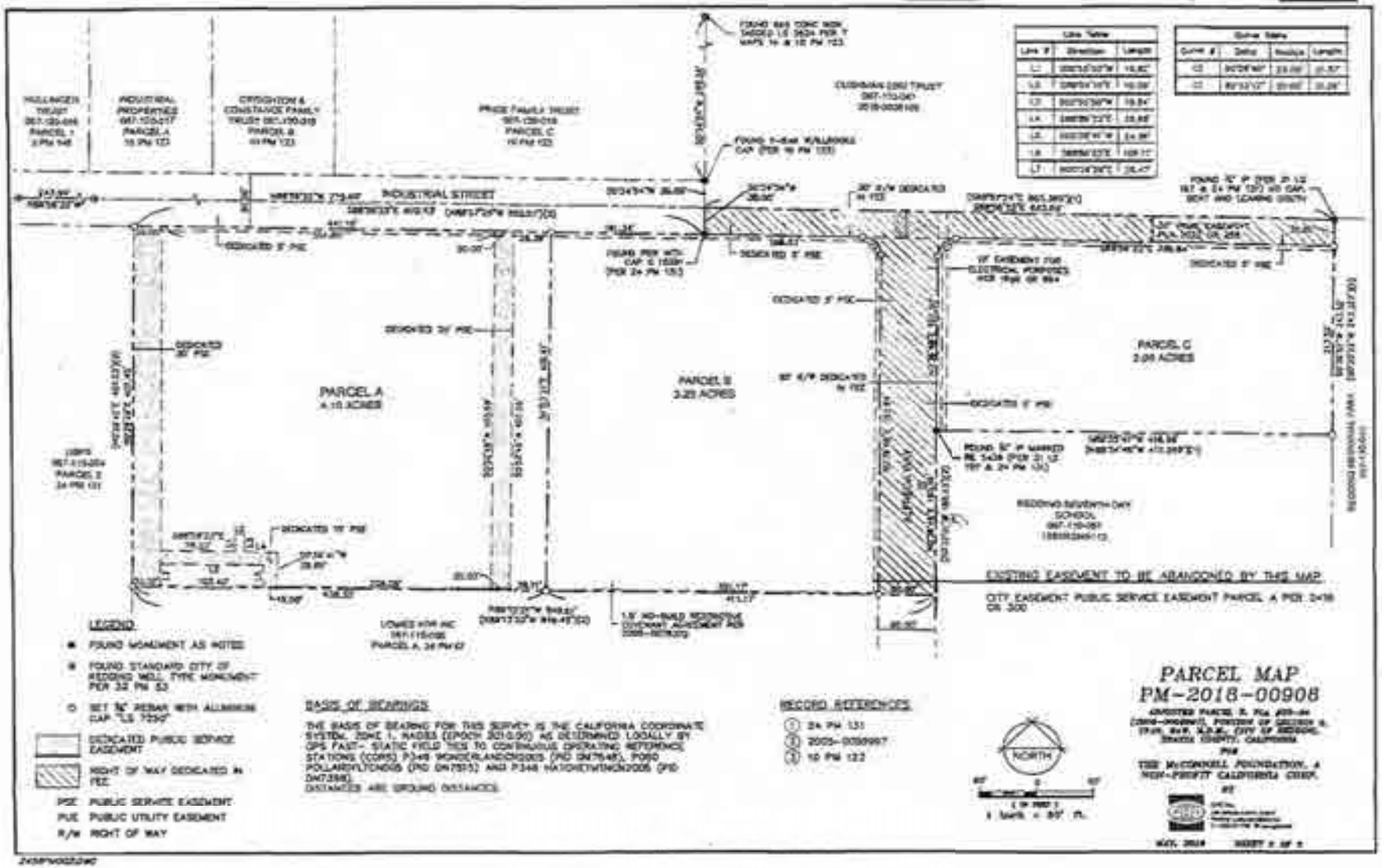
SITE: APN 067-110-052
ITEM: SITE DIAGRAM-AERIAL OVERLAY

FIGURE 3



BOLE & ASSOCIATES
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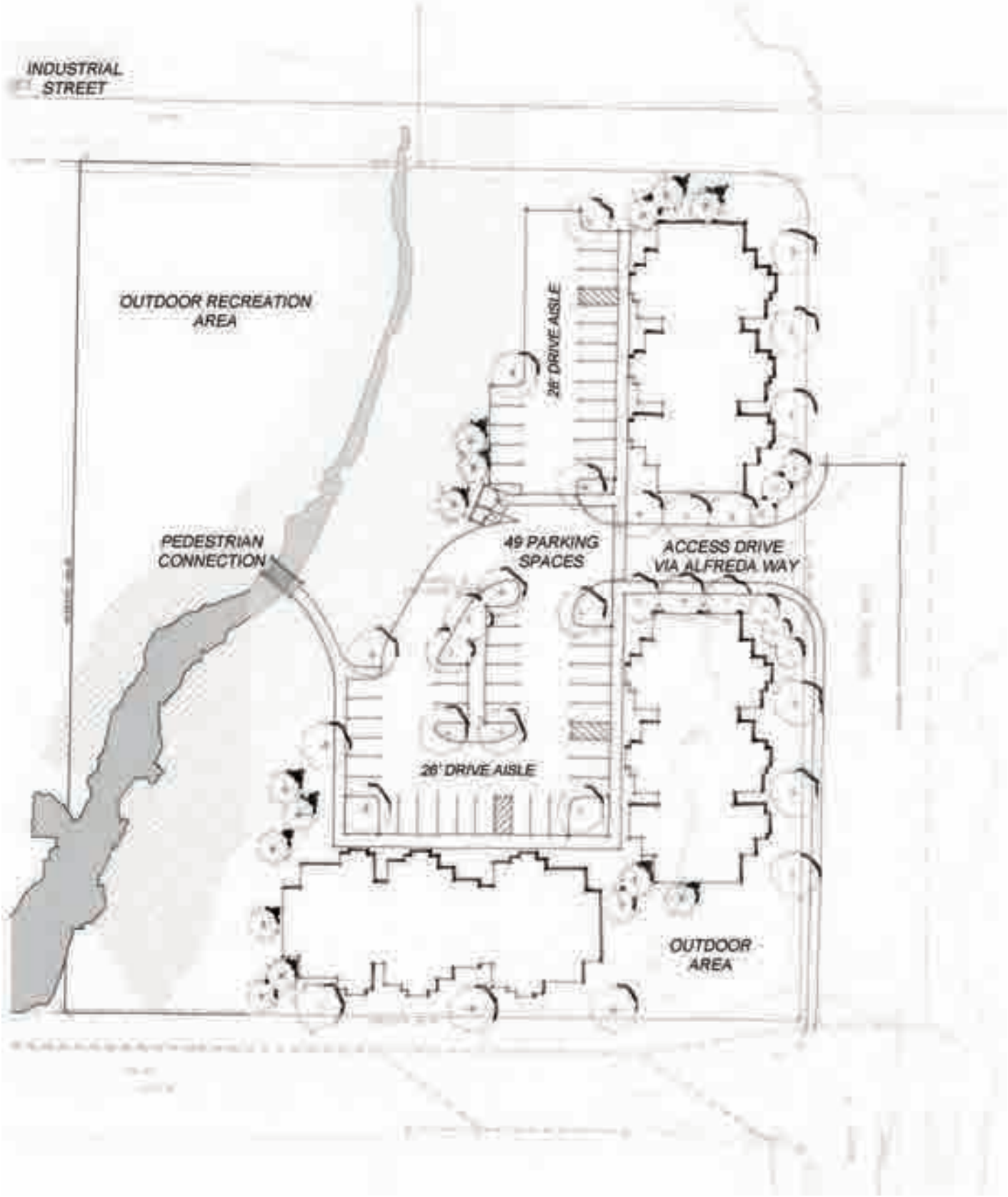
SITE: APN 067-110-052

ITEM: PARCEL MAP; SUBJECT PROPERTY IS SHOWN AS "PARCEL B"

FIGURE 4



<u>Concept Sketch</u>: APN 067-110-052, City of Hope Apartments Project. Site is shown within "Parcel B" of APN 067-110-052.

Figure 5

Map of Project Area

California Natural Diversity Database (CNDDB) Commercial [ds85]

- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (80m)
- Terrestrial Comm. (specific)
- Terrestrial Comm. (non-specific)
- Terrestrial Comm. (circular)
- Aquatic Comm. (80m)
- Aquatic Comm. (specific)
- Aquatic Comm. (non-specific)
- Aquatic Comm. (circular)
- Multiple (80m)
- Multiple (specific)
- Multiple (non-specific)
- Multiple (circular)
- Sensitive EO's (Commercial only)

1:18,056

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0 0.25 0.5 1 km

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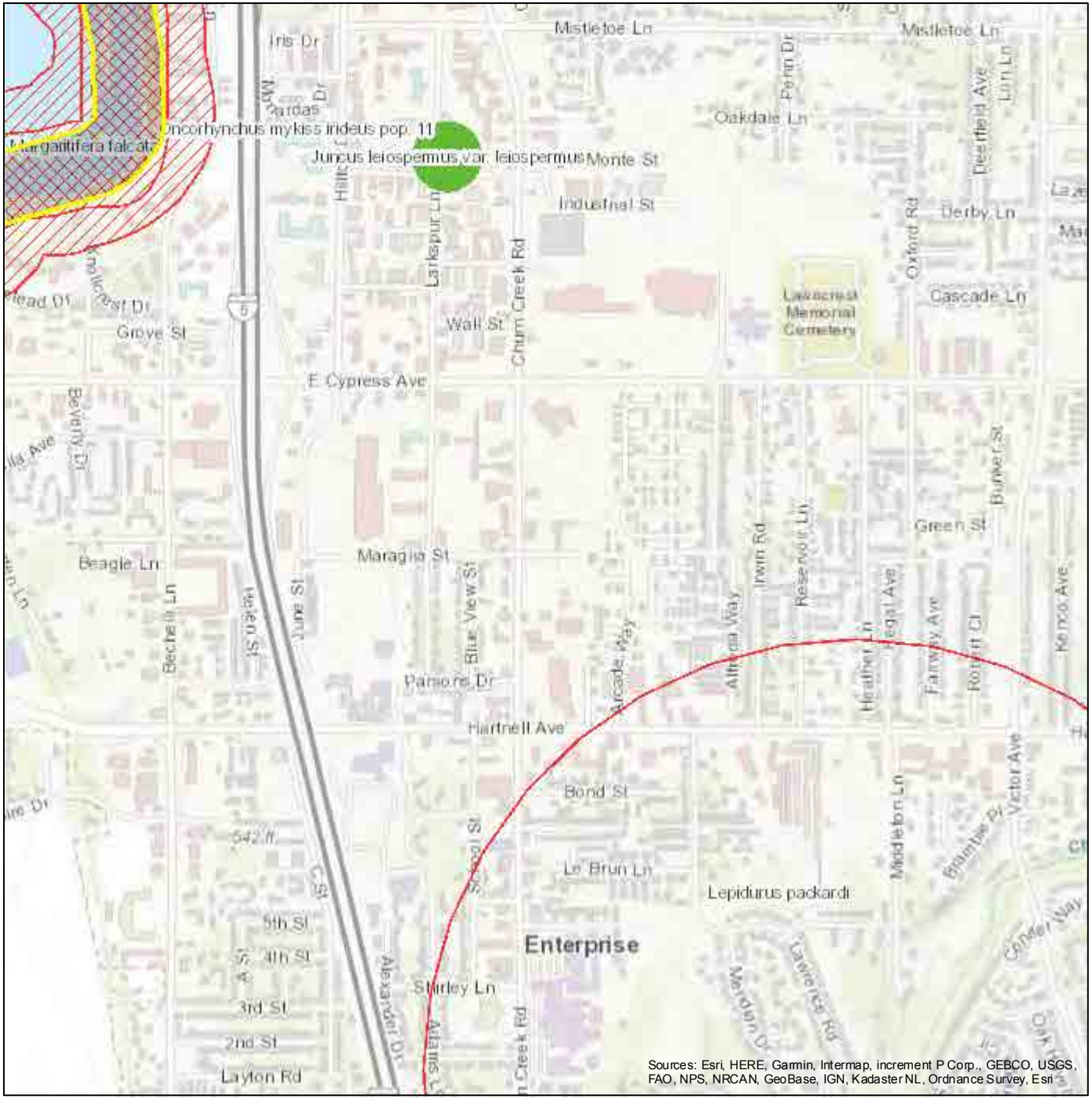

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APN 067-110-052

1201 Industrial Street

Redding, CA 96002

Inquiry Number: 5920771.11

January 02, 2020

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01/02/20

Site Name:	Client Name:
APN 067-110-052	Bole and Associates
1201 Industrial Street	6898 Penny Way
Redding, CA 96002	Brown Valley, CA 95918
EDR Inquiry # 5920771.11	Contact: David Bole

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Search Results:

Year	*Scale*	*Details*	*Source*
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1998	1"=500'	Acquisition Date: August 11, 1998	USGS/DOQQ
1983	1"=500'	Flight Date: July 04, 1983	USDA
1973	1"=500'	Flight Date: June 03, 1973	USGS
1969	1"=500'	Flight Date: July 31, 1969	USGS
1952	1"=500'	Flight Date: July 14, 1952	USDA
1943	1"=500'	Flight Date: September 06, 1943	USGS

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YEAR: 2016
= 500'
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EDR

INQUIRY #: 5920771.11
YEAR: 2012
= 500'
N
EDR

INQUIRY #: 5920771.11
YEAR: 2009
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EDR

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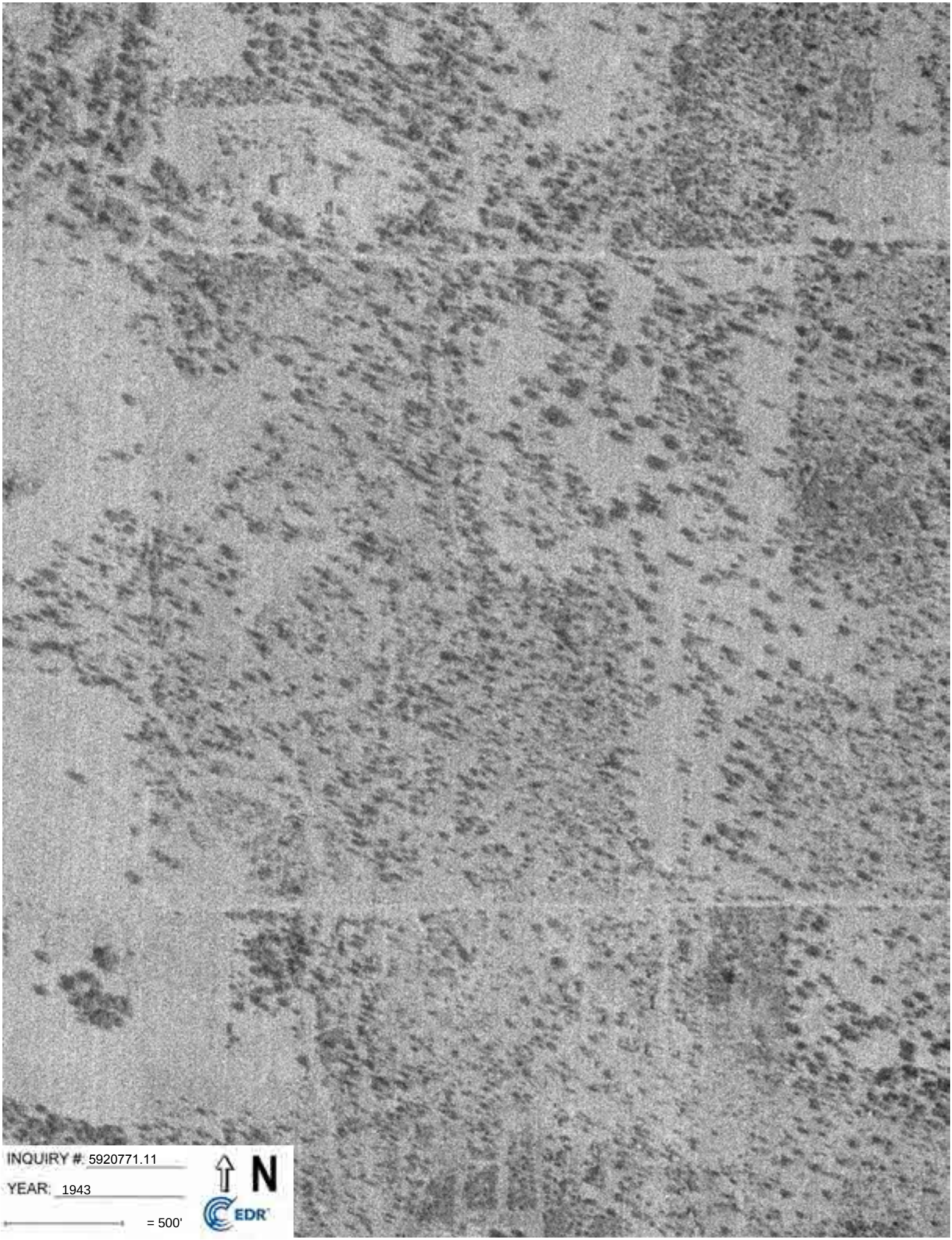
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ENCLOSURE C: SOIL DATA

Soil Map—Shasta County Area, California
(APN 067-110-052 Soils Map)

Map Scale: 1:2,110 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Shasta County Area, California
Survey Area Data: Version 14, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 26, 2015—Jun 26, 2015

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CfA	Churn gravelly loam, deep, 0 to 3 percent slopes	7.7	72.8%
RcA	Red Bluff gravelly loam, moderately deep, 0 to 3 percent slopes	0.5	5.0%
RcB	Red Bluff gravelly loam, moderately deep, 3 to 8 percent slopes	2.3	22.2%
Totals for Area of Interest		**10.5**	**100.0%**

ENCLOSURE D: USFWS SPECIAL STATUS SPECIES LIST AND CDFG CNDDB SPECIES TABLE

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: December 16, 2019
Consultation Code: 08ESMF00-2020-SLI-0688
Event Code: 08ESMF00-2020-E-02154
Project Name: K2 Development Housing Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2020-SLI-0688

Event Code: 08ESMF00-2020-E-02154

Project Name: K2 Development Housing Project

Project Type: DEVELOPMENT

Project Description: This project will involve the creation of housing units

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/40.57415521504103N122.34707908789088W

Counties: Shasta, CA

Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Northern Spotted Owl *Strix occidentalis caurina* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1123	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/205/office/11420.pdf	Threatened

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850 Habitat assessment guidelines: https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp *Branchinecta conservatio* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *Lepidurus packardi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

NAME	STATUS
Slender Orcutt Grass *Orcuttia tenuis* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1063	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Enterprise (4012253))
 AND Federal Listing Status IS (Endangered OR Threatened OR Proposed Endangered OR Proposed Threatened OR Candidate) AND State Listing Status IS (Endangered OR Threatened OR Candidate Endangered OR Candidate Threatened)

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Oncorhynchus tshawytscha pop. 6 chinook salmon - Central Valley spring-run ESU	G5 S1	Threatened Threatened	AFS_TH-Threatened	465 465	13 S:1	0	0	0	0	0	1	1	0	1	0	0
Oncorhynchus tshawytscha pop. 7 chinook salmon - Sacramento River winter-run ESU	G5 S1	Endangered Endangered	AFS_EN-Endangered	280 280	2 S:1	0	0	0	0	0	1	1	0	1	0	0
Orcuttia tenuis slender Orcutt grass	G2 S2	Threatened Endangered	Rare Plant Rank - 1B.1 SB_UCBBG-UC Berkeley Botanical Garden	480 560	100 S:7	2	0	2	1	1	1	3	4	6	1	0

Critical Habitat for Threatened & Endangered Species [USFWS]

Final Linear Features

Final Polygon Features

Proposed Linear Features

Proposed Polygon Features

A specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.

U.S. Fish and Wildlife Service | City of Redding GIS, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

ATTACHMENT G - FARMLANDS

Map Scale: 1:841 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 10 20 40 60

Feet: 0 40 80 160 240

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated
- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated
- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Soil Rating Points

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated

- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
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- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Shasta County Area, California
Survey Area Data: Version 14, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 26, 2015—Jun 26, 2015

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CfA	Churn gravelly loam, deep, 0 to 3 percent slopes	Prime farmland if irrigated	2.9	83.5%
RcB	Red Bluff gravelly loam, moderately deep, 3 to 8 percent slopes	Farmland of statewide importance	0.6	16.5%
Totals for Area of Interest			**3.5**	**100.0%**

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

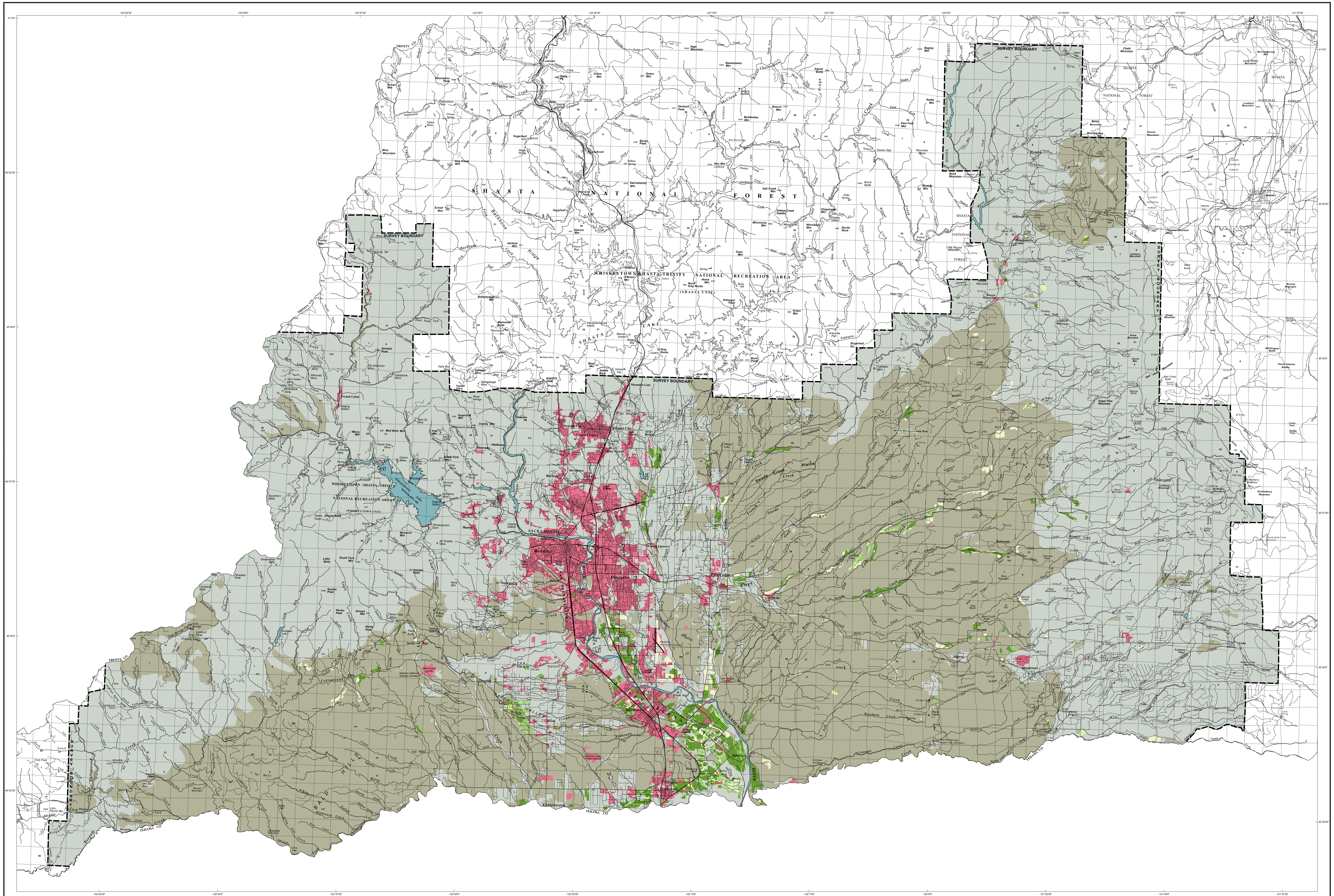
Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

STATE OF CALIFORNIA
Edmund G. Brown Jr., *Governor*
THE NATURAL RESOURCES AGENCY
John Laird, *Secretary*
DEPARTMENT OF CONSERVATION
Mark Nechodom, *Director*

SHASTA COUNTY IMPORTANT FARMLAND 2010

CALIFORNIA DEPARTMENT OF CONSERVATION
DIVISION OF LAND RESOURCE PROTECTION
FARMLAND MAPPING AND MONITORING PROGRAM



PRIME FARMLAND

PRIME FARMLAND HAS THE BEST COMBINATION OF PHYSICAL AND CHEMICAL FEATURES ABLE TO SUSTAIN LONG-TERM AGRICULTURAL PRODUCTION. THIS LAND HAS THE SOIL QUALITY, GROWING SEASON, AND MOISTURE SUPPLY NEEDED TO PRODUCE SUSTAINED HIGH YIELDS. LAND MUST HAVE BEEN USED FOR IRRIGATED AGRICULTURAL PRODUCTION AT SOME TIME DURING THE FOUR YEARS PRIOR TO THE MAPPING DATE.

FARMLAND OF STATEWIDE IMPORTANCE

FARMLAND OF STATEWIDE IMPORTANCE IS SIMILAR TO PRIME FARMLAND BUT WITH MINOR SHORTCOMINGS, SUCH AS GREATER SLOPES OR LESS ABILITY TO STORE SOIL MOISTURE. LAND MUST HAVE BEEN USED FOR IRRIGATED AGRICULTURAL PRODUCTION AT SOME TIME DURING THE FOUR YEARS PRIOR TO THE MAPPING DATE.

UNIQUE FARMLAND

UNIQUE FARMLAND CONSISTS OF LESSER QUALITY SOILS USED FOR THE PRODUCTION OF THE STATE'S LEADING AGRICULTURAL CROPS. THIS LAND IS USUALLY IRRIGATED, BUT MAY INCLUDE NONIRRIGATED ORCHARDS OR VINEYARDS AS FOUND IN SOME CLIMATIC ZONES IN CALIFORNIA. LAND MUST HAVE BEEN CROPPED AT SOME TIME DURING THE FOUR YEARS PRIOR TO THE MAPPING DATE.

FARMLAND OF LOCAL IMPORTANCE

DRYLAND GRAIN PRODUCING LANDS. ALSO INCLUDED ARE FARMLANDS THAT ARE PRESENTLY IRRIGATED BUT DO NOT MEET THE SOIL CHARACTERISTICS OF PRIME OR STATEWIDE. THE MAJORITY OF THESE FARMLANDS ARE LOCATED WITHIN THE ANDERSON COTTONWOOD IRRIGATION DISTRICT. THESE SOILS INCLUDE NEWTON GRAVELLY LOAM (8 TO 15 PERCENT SLOPES), MODA LOAM, SEEPED (0 TO 3 PERCENT SLOPES), MODA LOAM, SHALLOW (0 TO 5 PERCENT SLOPES), AND HILLGATE LOAM.

GRAZING LAND

GRAZING LAND IS LAND ON WHICH THE EXISTING VEGETATION IS SUITED TO THE GRAZING OF LIVESTOCK.

URBAN AND BUILT-UP LAND

URBAN AND BUILT-UP LAND IS OCCUPIED BY STRUCTURES WITH A BUILDING DENSITY OF AT LEAST 1 UNIT TO 1.5 ACRES, OR APPROXIMATELY 6 STRUCTURES TO A 10-ACRE PARCEL. COMMON EXAMPLES INCLUDE RESIDENTIAL, INDUSTRIAL, COMMERCIAL, INSTITUTIONAL FACILITIES, CEMETERIES, AIRPORTS, GOLF COURSES, SANITARY LANDFILLS, SEWAGE TREATMENT, AND WATER CONTROL STRUCTURES.

OTHER LAND

OTHER LAND IS LAND NOT INCLUDED IN ANY OTHER MAPPING CATEGORY. COMMON EXAMPLES INCLUDE LOW DENSITY RURAL DEVELOPMENTS, BRUSH, TIMBER, WETLAND, AND RIPARIAN AREAS NOT SUITABLE FOR LIVESTOCK GRAZING, CONFINED LIVESTOCK, POULTRY, OR AQUACULTURE FACILITIES, STRIP MINES, BORROW PITS, AND WATER BODIES SMALLER THAN 40 ACRES. VACANT AND NONAGRICULTURAL LAND SURROUNDED ON ALL SIDES BY URBAN DEVELOPMENT AND GREATER THAN 40 ACRES IS MAPPED AS OTHER LAND.

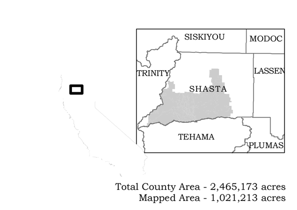
WATER

PERENNIAL WATER BODIES WITH AN EXTENT OF AT LEAST 40 ACRES.

SCALE: 1:100,000
1 inch represents approximately 1.6 miles

1 0 1 2 3 4 5 6 7 8 9 10 Kilometers
1 0 1 2 3 4 5 Miles

10 | 40 | 160 — 1 mile
The minimum land use mapping unit is 10 acres, except Water, which is mapped to a minimum of 40 acres.
1 square mile = 640 acres.



Total County Area - 2,465,173 acres
Mapped Area - 1,021,213 acres

Important Farmland Maps are compiled by the Farmland Mapping and Monitoring Program (FMMP) pursuant to Section 65570 of the California Government Code. To create the maps, FMMP combines current land use information with U.S. Department of Agriculture-Natural Resources Conservation Service (NRCS) soil survey data. Soil units qualifying for Prime Farmland and Farmland of Statewide Importance are determined by the NRCS. Changes to soil profiles subsequent to publication of NRCS soil surveys are not reflected on this map. This map was developed using NRCS digital soil data (SSURGO) and may contain individual soil units as small as one acre.

Land use status is determined using current and historic aerial imagery, supplemental GIS data, and field verification. Imagery sources may include public domain datasets, web-based information, and commercially purchased data, depending on data availability. Supplemental data on land management status is obtained from federal, state, and local governments. Map reviewers at the local level contribute valuable information with their comments and suggestions. Please refer to FMMP field analyst reports for each county to obtain specific citations.

Cultural base information for the Important Farmland Maps was derived from public domain data sets, based upon design of the U.S. Geological Survey, with updates generated by digitizing over current imagery.

This map should be used within the limits of its purpose - as a current inventory of agricultural land resources. This map does not necessarily reflect general plan or zoning designations, city limit lines, changing economic or market conditions, or other factors which may be taken into consideration when land use policies are determined. This map is not designed for parcel-specific planning purposes due to its scale and the ten-acre minimum land use mapping unit. Classification of important farmland and urban areas on this map is based on best available data. The information has been delineated as accurately as possible at 1:24,000-scale, but no claim to meet 1:24,000 National Map Accuracy Standards is made due to variations in the quality of source data.

The Department of Conservation makes no warranties as to the suitability of this product for any particular purpose.

Additional data is available at www.conservation.ca.gov/dlrp/fmmp, including detail on the program, full size PDF maps, map categories, statistics, field summaries, and GIS data for download. Contact the:

Farmland Mapping and Monitoring Program
801 K Street, MS 18-01
Sacramento, CA 95814
Phone: (916) 324-0859
e-mail: fmmp@conservation.ca.gov

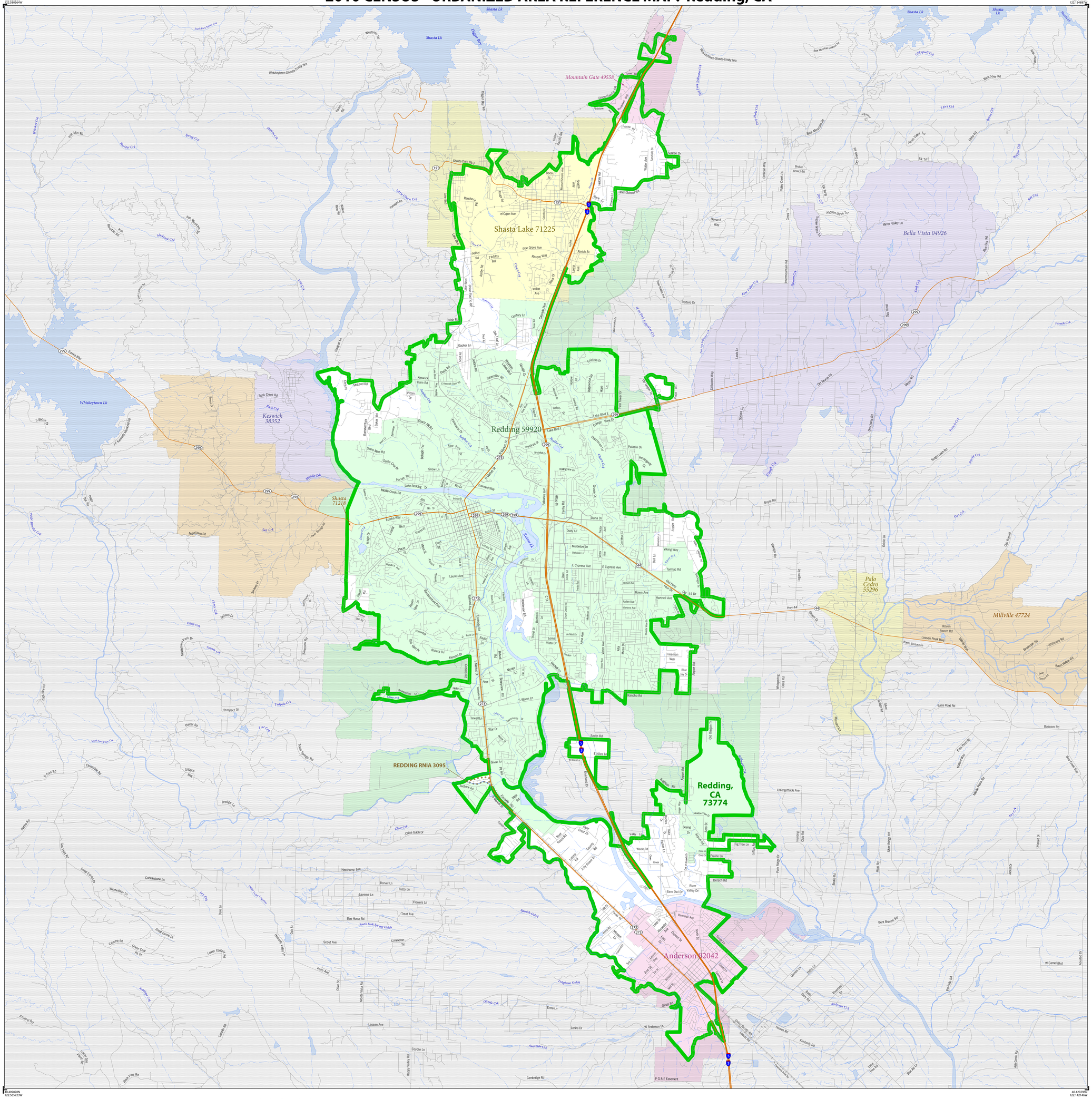
© California Department of Conservation, Division of Land Resource Protection, 2012.

Map published June 2012.

2010 CENSUS - URBANIZED AREA REFERENCE MAP: Redding, CA

40.733650N
122.580364W

40.744117N
122.154807W



40.409878N
122.565723W

40.420206N
122.142146W

LEGEND

SYMBOL DESCRIPTION	SYMBOL	LABEL STYLE
International		CANADA
Federal American Indian Reservation		L'ANSE RES 1880
Off-Reservation Trust Land		T1880
Urbanized Area		Dover, DE 24580
Urban Cluster		*Tooele, VT 88057*
State (or statistically equivalent entity)		NEW YORK 36
County (or statistically equivalent entity)		ERIE 029
Minor Civil Division (MCD) [1,2]		Bristol town 07485
Consolidated City		MILFORD 47500
Incorporated Place [1,3]		Davis 18100
Census Designated Place (CDP) [3]		*Incline Village 35100*

DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL
Interstate	15	Water Body	Pleasant Lake
U.S. Highway	2	Military	Fort Belvoir
State Highway	4	Outside Subject Area	
Other Road	Marsh Ln		
Railroad	Southern RR		
Perennial Stream	Tumbling Cr		
Intermittent Stream	Piney Cr		

Where international, state, county, and/or MCD boundaries coincide, the map shows the boundary symbol for only the highest-ranking of these boundaries.

1 A '*' following an MCD name denotes a false MCD. A '*' following a place name indicates that a false MCD exists with the same name and FIPS code as the place; the false MCD label is not shown.

2 MCD boundaries are shown in the following states in which some or all MCDs function as general-purpose governmental units: Connecticut, Illinois, Indiana, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, and Wisconsin. (Note that Illinois and Nebraska have some counties covered by nongovernmental precincts and Missouri has most counties covered by nongovernmental townships.)

3 Place label color corresponds to the place fill color.
Label colors: Davis Davis Davis Davis Davis

SUBJECT AREA COUNTIES ON MAP SHEET
06089 Shasta

All legal boundaries and names are as of January 1, 2010. Urban areas are based on results from the 2010 Decennial Census. The boundaries shown on this map are for Census Bureau statistical data collection and tabulation purposes only; their depiction and designation for statistical purposes does not constitute a determination of jurisdictional authority or rights of ownership or entitlement.

Geographic Vintage: 2010 Census (reference date: January 1, 2010)
Data Source: U.S. Census Bureau's MAF/TIGER database (TAB10)
Map Created by Geography Division: March 11, 2012

U.S. DEPARTMENT OF COMMERCE Economics and Statistics Administration U.S. Census Bureau

Projection: Albers Equal Area Conic
Datum: NAD 83
Spheroid: GRS 80
1st Standard Parallel: 34 06 27
2nd Standard Parallel: 40 25 20
Central Meridian: -119 18 20
Latitude of Projection's Origin: 32 31 43
False Easting: 0
False Northing: 0

0 1 2 3 4 5 Kilometers
0 0.8 1.6 2.4 3.2 4 Miles
The plotted map scale is 1:49256

N W E S

United States Census Bureau

PARENT SHEET 1

Total Sheets: 1
- Index Sheets: 0
- Parent Sheets: 1

UA NAME: Redding, CA
UA CODE: 73774
ENTITY TYPE: Urbanized Area (UA)
ST: California (06)

2010 CENSUS UA REF MAP (PARENT)
231073774001

ATTACHMENT H - HISTORIC PRESERVATION

CITY OF REDDING
CALIFORNIA

CITY OF REDDING
777 CYPRESS AVENUE, REDDING, CA 96001
P.O. BOX 496071, REDDING, CA 96049-6071

HOUSING DIVISION
NICOLE SMITH - HOUSING MANAGER
530.225.4048
530.245.7160 (FAX)

May 27, 2020

Ms. Julianne Polanco
State Historic Preservation Officer
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816

RE: HUD-Funded Project; Section 106 Consultation – Center of Hope Apartments
1201 Industrial Street, Redding, Shasta County, CA 96002
USGS Enterprise Quad - T31N, R4W, Section 5
APN: 067-110-052

Trigger: Receipt of HUD Project-Based Vouchers

Dear Ms. Polanco;

The purpose of this letter is to complete the SHPO consulting requirements pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations found at 36 CFR Part 800 prior to the above-referenced project receiving HUD Project-Based Vouchers from the City of Redding and the Redding Housing Authority. The proposed project will consist of the construction of Phase I of a mixed-use supportive services housing project consisting of up to 49 units and a small retail space in the City of Redding, Shasta County, California. The use of federal funds in the project requires that a NEPA environmental review be conducted on the project site, which includes Section 106 consultation with SHPO.

Conclusion

The City of Redding has concluded that the proposed project will not cause any significant impact to archaeological or historic resources in the project area and, therefore, has made a finding of *"No Historic Properties Affected"* per CFR 36 Part 800.4 (d)(1) and that no additional studies or mitigations need to be undertaken. The City of Redding requests your concurrence in this finding.

Proposed Project

The Center of Hope Apartments, Phase I is an up to 49-unit affordable apartment development comprised of one-, two-, and three-bedroom units with a shared common area and community room, laundry room, and a small retail space to facilitate workforce reintroduction programming as part of a job training and workforce development program to be built on the center portion an approximately 10.35 acre parcel located at 1201 Industrial Street in Redding, California (APN: 067-110-052). Phase I of the proposed project has a total acreage of approximately 3.25 acres. Surrounding site uses include commercial retail development to the south and northwest, vacant land to the northeast, a school to the east, and a medical center currently under construction to the west.

Area of Potential Effect (APE)

The APE is the project site itself and an approximately one block radius.

California Historical Resources Information System

A response letter from the California Historical Resources Information System (CHRIS) dated May 7, 2020 stated that the project is located in an area considered to be sensitive for prehistoric, protohistoric, and historic cultural resources. CHRIS recommended that an archaeologist conduct a cultural resources review of the project area to assess the need for survey or subsurface investigations.

Archeological Survey Report

An Archeological Survey was conducted by Historic Resource Associates (HRA) in May 2020. HRA performed a pedestrian survey of the project area walking 1 meter transects during which no prehistoric archaeological or historical archaeological sites, features, or artifacts were identified, nor were any historic buildings, structures, or objects discovered. Therefore, a finding of no historic properties affected and no further archeological study is recommended for the project.

Native American Heritage Commission (NAHC)

A response letter from NAHC dated April 16, 2020 stated that a Sacred Lands File for the area of potential effect was completed with negative results. NAHC provided a list of 9 Native American contacts. Native American consultation letters were sent to all persons on the NAHC list as well as those Tribes on the HUD Tribal Directory Assessment Information list on April 21, 2020.

National Register of Historic Places

An internet search of the National Register of Historic Places found 9 results for registered historic sites within the City of Redding. The nearest registered historic site is the Cascade Theater located approximately 2.1 miles west of the project site.

I hope this information is helpful to you. Please feel free to contact me should you have any questions or comments about this project.

Sincerely,

Mark Christ, Senior Housing Specialist
City of Redding

cc: R. L. Hastings & Associates, LLC
P.O. Box 552
Placerville, CA 95667

Enclosures:

USGS Topographic Map with Project Site outlined
Map of Area of Potential Effects (APE)
Google Street Maps & Aerial Photos of the project site
CHRIS response letter
Archeological Survey Report
NAHC response letter
Tribal Consultation letters
NRHP Internet Search Results

Northeast Center of the
California Historical Resources
Information System

BUTTE
GLENN
LASSEN
MODOC
PLUMAS
SHASTA

SIERRA
SISKIYOU
SUTTER
TEHAMA
TRINITY

123 West 6th Street, Suite 100
Chico CA 95928
Phone (530) 898-6256
neinfocntr@csuchico.edu

May 7, 2020

R.L. Hastings & Associates, LLC
P.O. Box 552
Placerville, CA 95667
Attn.: Mr. Roy Hastings

I.C. File # D20-58
Records Search

RE: Center of Hope Apartments / APN 067-110-052
T31N, R4W, Section 5
USGS Enterprise 7.5' and Redding (1944) 15' quadrangles
Approximately 10.5 acres map (Shasta County)

Dear Mr. Hastings,

In response to your request, a non-confidential records search for the project cited above was conducted by examining the official maps and records for cultural resources and surveys in Shasta County.

RESULTS:

Prehistoric Resources: According to our records, no resources of this type have been recorded in the project area. However, Native American village sites, bedrock mortars, midden deposits, flaked stone scatters, isolated cores, and fire-cracked rock have been recorded in the one-mile vicinity. The project is located in a region utilized by the *Stillwater* subgroup of Wintu populations. Unrecorded prehistoric cultural resources may be located within the project area.

Historic Resources: According to our records, no resources of this type have been recorded in the project area. However, one site of this type, consisting of a residential complex, has been recorded in the one-mile vicinity. Unrecorded historic cultural resources may be located in the project area.

The USGS Enterprise 7.5' and Redding (1944) 15' quadrangle maps indicate that the project area is located within Enterprise; Lawn Crest Cemetery, Seventh Day Adventist School, Mistletoe School, roads, and structures are located in the ¼-mile radius; and the San Buenaventura land grant, Redding, Interstate 5, the Sacramento River, Stillwater Plains, structures, and roads are located in the general project vicinity. The project is located in the historic Redding gold mining district.

The 1855 General Land Office (GLO) plat map depicts a trail in the vicinity of the project area.

Previous Archaeological Investigations: According to our records, areas within and adjacent to the project boundaries have been previously surveyed for cultural resources. In addition, two regional overview studies encompass the project area. The reports are listed below.

Brunmeier, Patrick and Gary Scholze (North State Resources, Inc.)
2005 *Archaeological Reconnaissance for Lowe's Home Center Project, Redding, Shasta County, California.*
NEIC Report 006488

Brunmeier, Patrick (Quercus Consultants)
2018 *Archaeological Survey Report for the Center of Hope Project, Redding*
NEIC Report 014256

King, Jerome H., William R. Hildebrandt, and Sharon A. Waechter (Far Western Anthropological Research Group, Inc.)
2016 *Part I – Overview: A Class I Cultural Resources Overview and Existing Information Inventory for the Northwest California Integrated Resource Management Plan, Bureau of Land Management Redding and Arcata Field Offices.*
NEIC Report 014341

Meyer, Jack (Far Western Anthropological Research Group, Inc.)
2013 *A Geoarchaeological Overview and Assessment of Northeast California, Cultural Resources Inventory of Caltrans District 2 Rural Conventional Highways: Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama, and Trinity Counties.*
NEIC Report 012349

Literature Search: The official records and maps for archaeological sites and surveys in Shasta County were reviewed. Also reviewed: **National Register of Historic Places - Listed properties and Determined Eligible Properties** (2012); **California Register of Historical Resources** (2012); **California Points of Historical Interest** (2012); **California Inventory of Historic Resources** (1976); **California Historical Landmarks** (2012); **Built Environment Resource Directory** (2019); and **Handbook of North American Indians, Vol. 8, California** (1978).

RECOMMENDATIONS:

Based upon the above information and the local topography, and regional history, the project is located in an area considered to be sensitive for prehistoric, protohistoric, and historic cultural resources. Wintu populations used the local region for seasonal and/or permanent settlement, as well as for the gathering of plants, roots, seeds, domestic materials, and hunting seasonal game. Historically, Euro-Americans utilized the region for farming, mining, and transportation opportunities.

Therefore, because the entire project area has not been previously surveyed, we recommend that a professional archaeologist be contacted to conduct a cultural resources review of the project area to assess the need for survey or subsurface investigations. The project archaeologist will be able to offer recommendations for the preservation of or mitigation of effects on any cultural resources encountered as a result of field survey. A list of qualified consultants is available online at www.chrisinfo.org.

The project archaeologist should also contact the appropriate local Native American representatives for information regarding traditional cultural properties that may be located within project boundaries for which we have no records. The Native American Heritage Commission should be contacted at (916) 373-3710 for information regarding Native American representatives in the vicinity of the project.

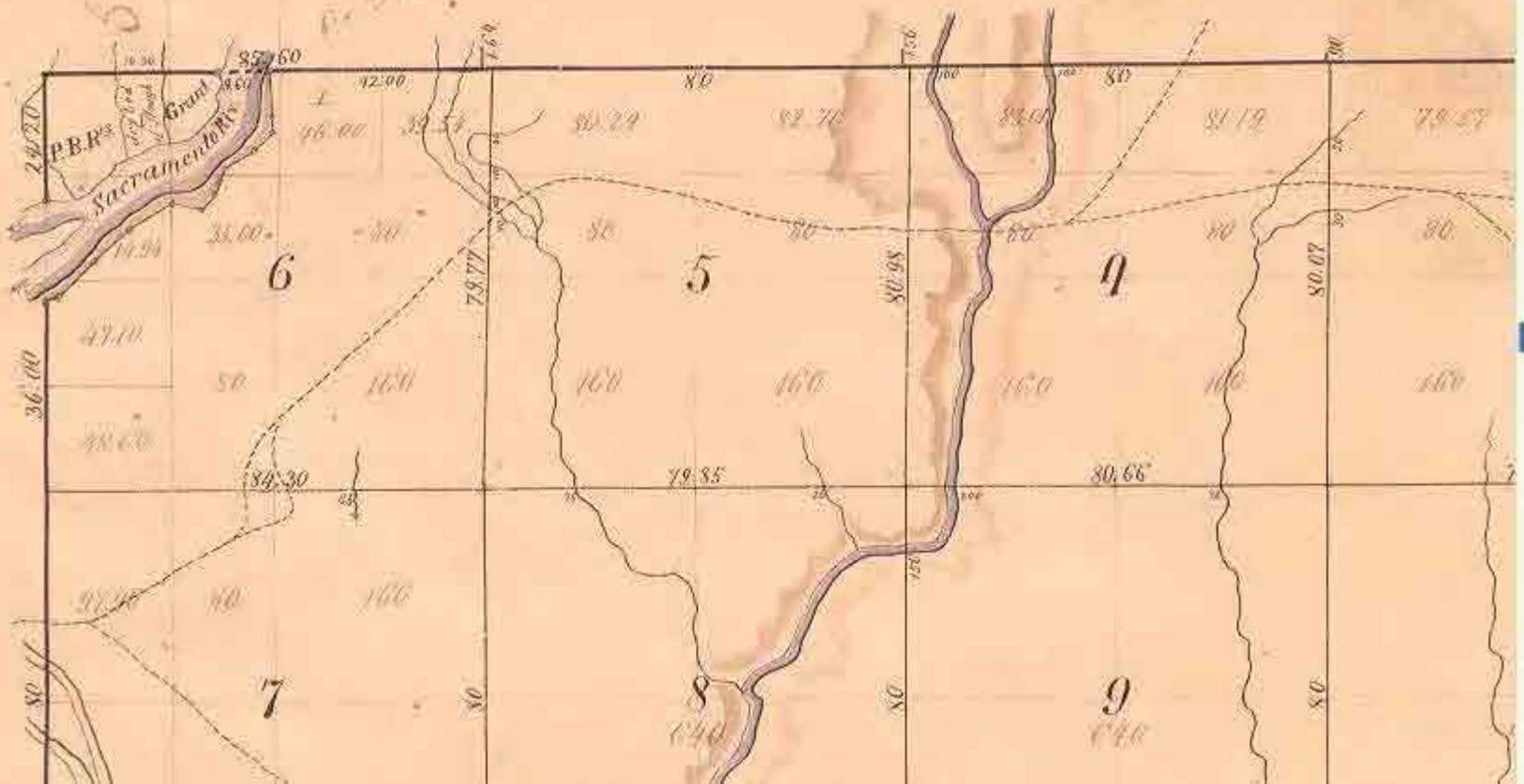
During any phase of parcel development, if any potential prehistoric, protohistoric, and/or historic cultural resources are encountered, all work should cease in the area of the find pending an examination of the site and materials by the project archaeologist. This request to cease work in the area of a potential cultural resource find is intended for accidental discoveries made during construction activities, and is not intended as a substitute for the recommended cultural resources survey.

The fee for this records search is $225.00 (1.5 hours of Information Center time @ $150.00 per hour). An invoice will follow from Chico State Enterprises for billing purposes. Thank you for your concern in preserving Shasta County's and California's cultural heritage, and please feel free to contact us if you have any questions or need any further information or assistance.

Sincerely,

Ryan Bradshaw
Assistant Coordinator

Township No. XXXI North Range No. IV We



ARCHAEOLOGICAL SURVEY REPORT OF THE CENTER OF HOPE APARTMENTS PROJECT, PARCELS B AND C, ASSESSOR'S PARCEL NUMBER 067-110-052, REDDING, SHASTA COUNTY, CALIFORNIA 96003

MAY 2020

PREPARED FOR:

R.L. Hastings & Associates, LLC
1765 Carson Road
Placerville, CA 95667

PREPARED BY:

Historic Resource Associates
3142 Bird Rock Road
Pebble Beach, CA 93953

TABLE OF CONTENTS

ARCHAEOLOGICAL SURVEY REPORT

I. Summary of Findings 1

II. Introduction and Project Description . . . 2

III. Cultural Context 4
- A. Environment 4
- B. Archaeology 4
- C. Ethnography 5
- D. History 5

IV. Research Results 6

V. Survey Methods and Field Inventory . . . 6

VI. Report of Study Findings 7

VII. Recommendations 7

VIII. Professional Qualifications 7

IX. References 8

ATTACHMENTS

Northeast Information Center Record Search

Native American Consultation Correspondence

FIGURES

Figure 1: Project Vicinity Map

Figure 2: Assessor's Parcel Map

Figure 3: Aerial Photograph

I. SUMMARY OF FINDINGS

Historic Resource Associates, at the request of R.L. Hastings & Associates, LLC, and as per an agreement with the Center of Hope Apartments, LLC, conducted an archaeological survey in order to identify and make recommendations, in accordance with 36 CFR Part 800, Section 106 of the National Historic Preservation Act (NHPA), in regards to the proposed construction of the Center of Hope Apartments, located near Industrial Street and Alfreda Way, Redding, Shasta County, California. The survey included Parcels B and C, encompassing approximately 5.31 acres, as depicted in Figure 2. The parcels are enumerated as Assessor's Parcel Number (APN) 067-110-052, and are located in Section 14, Township 31 North, Range 4 West on the USGS 7.5' *Enterprise* and *Redding, California* topographic quadrangle maps (Figure 1).

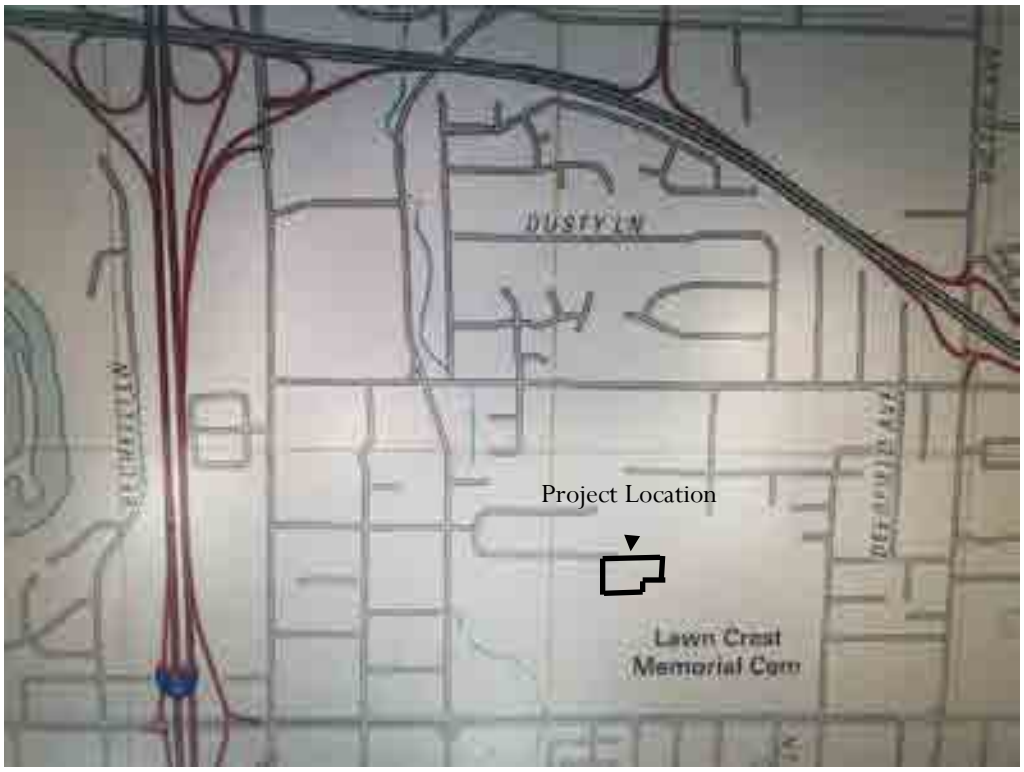


Figure 1: Project Vicinity Map
(USGS 7.5 *Enterprise, California* topographic quadrangle map, 2012)

On May 7, 2020, a record search (I.C. File #D20-58) was performed by the staff of the Northeast Information Center (NEIC) of the California Historical Resources Information System (CHRIS) (refer to NEIC Record Search). According to records at the NEIC, no prehistoric archaeological resources have been identified within the project site or within a one mile radius of the proposed project. Similarly, no historic archaeological resources have been identified within or surrounding the project area.

NEIC center staff noted that there has been four cultural resource studies conducted that encompassed or were adjacent to the project site: Brunmeier and Scholze 2005 (#006488), Meyer 2013 (#012349), King et al. 2016 (#014341), and Brunmeier 2018 (#014256).

The Native American Heritage Commission (NAHC) and the Tribal Directory Assessment Information (TDAT) for federally recognized tribes was contacted by R.L. Hastings Associates, LLC. According to the NAHC in a letter dated April 16, 2020, there were no "known" cultural sites identified in the project area (refer to Native American Consultation Correspondence).

On May 17, 2020, a field survey was conducted within the project limits, walking 1 meter transects. Ground surface visibility was excellent. The site is characterized by undulating level land with clayey soils, consisting of medium size pebble intermixed with cobbles, young oak trees, and several unimproved dirt roads. No permanent water sources exist within or near the proposed project. The project site, which lies north of Lowe's, is temporarily occupied by several homeless encampments with modern trash widely scattered throughout both parcels.

In conclusion, after a careful field survey of the project area, no prehistoric or historic archaeological sites, features, or artifacts were identified, nor were any historic building, structures, or objects discovered. Therefore, no further archaeological study is recommended for the proposed project.

II. INTRODUCTION AND PROJECT DESCRIPTION

Historic Resource Associates, at the request of R.L. Hastings & Associates, LLC, and as per an agreement with the Center of Hope Apartments**,** LLC, conducted an archaeological survey in order to identify and make recommendations, in accordance with 36 CFR Part 800, Section 106 of the National Historic Preservation Act (NHPA), in regards to the proposed construction of the Center of Hope Apartments, located near Industrial Street and Alfreda Way, Redding, Shasta County, California.

The survey included Parcels B and C, encompassing approximately 5.31 acres, as depicted in Figure 2. The parcels are enumerated as Assessor's Parcel Number (APN) 067-110-052, and are located in Section 14, Township 31 North, Range 4 West on the USGS 7.5' *Enterprise* and *Redding, California* topographic quadrangle maps (Figure 1). The project involves the construction of low-income apartments on the two parcels.

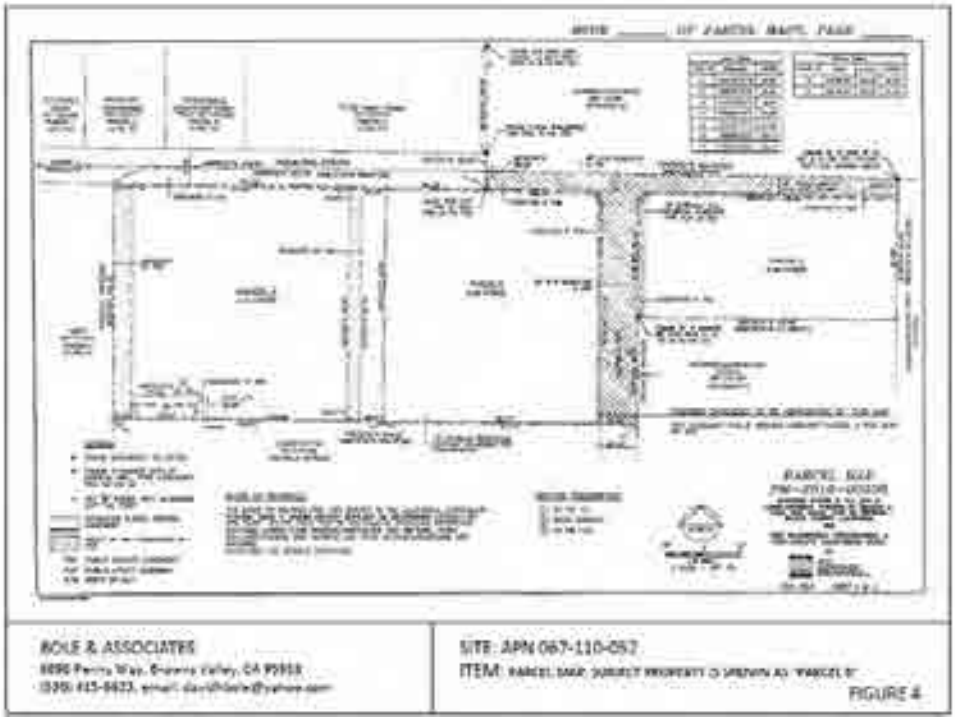


Figure 2: Assessor's Parcel Map (Parcels B and C)

Figure 3: Aerial Photograph (Parcels B and C)

III. CULTURAL CONTEXT

A. Environment

The project area is located in the northern Sacramento Valley within the northern portion of California's Great Central Valley. The southern slopes of the Klamath Mountains are located approximately 20 miles to the west and north, the northeastern slopes of the Coast Range are 30 miles southwest, the Sacramento River is located approximately two miles to the west and south, and the Cascade Range is located 10 to 15 miles to the east. The physiographic characteristics of the project vicinity are representative of the region between the Sacramento River and relatively flat undulating topography to the east cut by small seasonal drainages. The project site lies at an elevation of 550' AMSL. Vegetation in the project area consists of young live oaks and non-native grasses and sedge.

B. Archaeology

The earliest documented archaeological investigations in Shasta County were conducted during the 1930s and 1940s and were associated with the construction of Shasta Dam. Smith and Weymouth (1952) recorded a large number of prehistoric midden sites along the Sacramento, Pit and McCloud rivers, and Squaw Creek, with artifact assemblages suggesting that habitation of the sites by Penutian-speaking Wintu occurred at least 1,000 BP. Later work at nearby Squaw Creek pushed the early occupation of the area to 6,500 BP. (Sundahl 1992). Cultural constituents from this early time period suggest cultural affiliation with the Borax Lake area, and the artifact assemblages suggest that Hokan-speaking peoples inhabited these sites. The earliest systematic archaeological investigations in Tehama County were undertaken by Mohr (1949) and Treganza (1954) in association with various proposed reservoir projects. Treganza's work at CA-TEH-58 in 1954 yielded a large number of artifacts dating from the early to mid-nineteenth century. According to Hamusek (1992), subsequent archaeological investigations by Treganza, Edwards and King in 1965 near the Tehama-Colusa Canal, within the proposed Newville-Paskenta Reservoir, by Childress and Chartkoff 1966, and along proposed reservoir sites near Cottonwood Creek by Jensen (1978) and Johnson and Theodoratus (1982) resulted in the discovery of a large number of archaeological sites, with some containing artifacts and burials clearly indicative of a late prehistoric Nomlaki and Wintu presence.

Edwards proposed a three-phase prehistoric sequence for northern California encompassing a time span of about 5,000 years, consisting of the Northern Millingstone Phase (5,000 to 2,000 BP), the Tehama Phase (2,000 to 1,000 BP), and the Shasta Complex (1,000 BP to historic period) (Edwards 1970, Hamusek 1992). Sundahl (1992) recognized four cultural patterns, each corresponding to a specific temporal interval: Borax Lake Pattern (ca. 8,000-5,000 BP), Squaw Creek Pattern (ca. 5,000-3,000 BP), Whiskeytown Pattern (ca. 4,000-1,700 BP), and the Augustine Pattern/Shasta Complex (circa Post-1,700 BP). More recent work in northern California at Clear Lake near Borax Lake provides clear evidence that the region was first colonized at the end of the Pleistocene and associated with the "Western Clovis

Tradition" (Willig and Aikens 1988), dating around 13,500 years ago (Fiedel 1999, 2000). Obsidian data collected by White in this same area indicates use of the area may have begun as early as 16,000-20,000 years ago, although White's findings have not been absolutely confirmed (White et al. 2002:448-449).

C. Ethnography

Kroeber (1925), DuBois (1935), and LaPena (1978) discuss the ethnography of the project area that was occupied by the Wintu culture. The study area falls within the ethnographic territory of the *Dau-nom* Wintu, also referred to as the Baldhill Wintu. The Wintu represent the most northerly group of Penutian speakers in California and consist of nine geographically distinct groups, including the Baldhill Wintu. In general, Baldhill territory included land west of the Sacramento River between Clear Creek and Cottonwood Creek. Cottonwood Creek is often referred to as the boundary that separated the Northern Wintun (Wintu) from the Central Wintun (Nomlaki), however, Merriam (1966) indicates that Red Bank Creek, located south of Red Bluff, marked the northernmost extension of Nomlaki territory.

Johnson and Theodoratus (1982) indicate the boundary was probably not static, and "that the possibility exists that the area was used as a marginal resource area: a region occupied only on a seasonal basis, perhaps by segments of both Wintu and Nomlaki groups" (Johnson and Theodoratus 1982:117). The Wintu subsistence/settlement strategy was similar to many other California native groups, and was based on seasonal transhumance and the exploitation of vegetal resources, fish, and game. The Wintu lived in permanent villages during the winter, subsisting mainly on stored foods. In the spring and summer months they occupied resource procurement camps usually located no more than three to four days walk from the main village. Food resources were periodically returned to the base camp for storage, which was guarded by old people unable to participate in the gathering rounds (DuBois 1935:29-29). Extensive trade existed within and between various Wintu villages and tribes, and regional trade existed with the Shasta, Pomo, and Chimariko.

It is estimated that the Wintu arrived in the Sacramento Valley approximately 1,000 to 1,200 years ago, resulting in the displacement of Hokan-speaking peoples from the area (Moratto 1984). Pre-contact population estimates for the Wintu are 14,250. In 1910, there were an estimated 395 Wintu remaining. It is estimated that approximately 75 percent of the Wintu populations living along the Sacramento River were lost to malaria and influenza epidemics brought about by the arrival of European-American trappers and settlers in the early 1800s.

D. History

The first documented historic use of the region by Euroamericans occurred during the late 1820s and early 1830s when the trapping expeditions of Jedediah Strong Smith, Peter Skene Ogden, and the Hudson Bay Company entered the Sacramento Valley (Petersen 1965).

Cottonwood Creek was named by Captain John Fremont in 1846 for the abundance of cottonwood trees growing along its banks. European-American settlement and population in the northern Sacramento Valley increased as a result of the acquisition of the Rancho Buenaventura land grant by Pierson B. Reading and gold mining in the late 1840s; the Homestead Act of 1862; the arrival of the Central Pacific Railroad in 1872; the copper mining boom of the 1880s; and the Central Valley Project of 1935. These events resulted in population increases within Shasta County in excess of 100 percent from 1850-1860, 1870-1880, and 1930-1940 (Shasta County 1975). Historic aerial photographs and maps suggest that the project parcels were never developed, but over 50 years ago was devoid of vegetation.

IV. RESEARCH RESULTS

On May 7, 2020, a record search (IC File No. D20-58) was performed by the staff of the Northeast Information Center (NEIC) of the California Historical Resources Information System (CHRIS) in Chico, California. According to records at the NEIC, no prehistoric or historical archaeological resources have been identified within the project area or within a one mile radius of the project site. NEIC staff noted that there have been four cultural resource studies that have encompassed or were adjacent to the project area: Brunmeier and Scholze 2005 (#006488), Meyer 2013 (#012349), King et al. 2016 (#014341), and Brunmeier 2018 (#014256).

The Native American Heritage Commission (NAHC) and the Tribal Directory Assessment Information (TDAT) for federally recognized tribes was contacted by R.L. Hastings Associates, LLC. According to the NAHC in a letter dated April 16, 2020, there were no "known" cultural sites identified in the project area (refer to Native American Consultation Correspondence). Archival research was also conducted at the California State Library, Sacramento; the Internet; and within the reference library of Historic Resource Associates.

V. SURVEY METHODS AND FIELD INVENTORY

On May 17, 2020, a pedestrian survey walking 1 meter transects was conducted on the project site. Ground surface visibility was excellent throughout the subject parcels.

VI. REPORT OF STUDY FINDINGS

The project area was determined by the envelope of the proposed development, which includes Parcels B and C. Cultural site sensitivity was deemed to be low for prehistoric and historic resources. Widely scattered Tertiary cobbles, as well as widely scattered modern refuse and several homeless encampments, were observed within the project site. In conclusion, after a careful field survey of the project area, no prehistoric or historic archaeological sites, features, or artifacts were identified, nor were any historic buildings, structures, or objects discovered.

Therefore, a finding of no historic properties affected and no further archaeological study is recommended for the project.

VII. RECOMMENDATIONS

In accordance with Section 36 CFR 800.4(d)(1) of NHPA, no archaeological properties were identified during the implementation of this study and no additional archaeological work is recommended for this project. Based on the Code of Federal Regulations Title 36, Volume 3 (Rev. July 1, 2001), if archaeological remains are exposed during ground construction, work within five meters of the radius of the find(s) must be halted and a qualified archaeologist retained to evaluate the findings. If human remains are encountered during excavations associated with this project, all work must halt, and the County Coroner must be notified (Section 7050.5 of the California Health and Safety Code). The coroner will determine whether the remains are of forensic interest. If the coroner, with the aid of the supervising archaeologist, determines that the remains are prehistoric, the coroner will contact the Native American Heritage Commission (NAHC).

The NAHC will be responsible for designating the most likely descendant (MLD), who will be responsible for the ultimate disposition of the remains, as required by Section 5097.98 of the Public Resources Code. The MLD should make his/her recommendations within 48 hours of their notification by the NAHC. This recommendation may include A) the nondestructive removal and analysis of human remains and items associated with Native American human remains; (B) preservation of Native American human remains and associated items in place; (C) relinquishment of Native American human remains and associated items to the descendants for treatment; or (D) other culturally appropriate treatment.

VIII. PROFESSIONAL QUALIFICATIONS

Dana E. Supernowicz, principal of Historic Resource Associates, earned his M.A. degree in History at California State University, Sacramento in 1983, with an emphasis on California and Western United States history. Supernowicz has over 40 years of experience working in the field of cultural resources management for federal and state agencies, as well as 35 years in private consulting. He is a member of the Society for California Archaeology, Society of Historic Archaeology, and National Trust for Historic Preservation. Supernowicz meets the Secretary of the Interior's Professional Standards in Architectural History, Archaeology, and History and is a Registered Professional Archaeologist (RPA).

IX. REFERENCES

Brunmeier, Patrick. Archaeological Survey Report for the Center of Hope Project, Redding. Unpublished report (#014256) on file at NEIC, Chico, CA. 2018.

Brunmeier, Patrick and Gary Scholze. Archaeological Reconnaissance for Lowe's Home Center Project, Redding, Shasta County, California. Unpublished report (#006488) on file at NEIC, Chico, CA. 2005.

Chartkoff, Joseph L. and Kerry Kona Chartkoff. *The Archaeology of California*. Stanford, CA: Stanford University Press. 1984.

Chase-Dunn, Christopher K., and Kelly M. Mann. *The Wintu and Their Neighbors: A Very Small World-System in Northern California*. Tucson: University of Arizona Press. 1998.

Childress, Jeffery and Joseph Chartkoff. An Archaeological Survey the English Ridge Reservoir in Lake and Mendocino Counties, California. On file at the National Park Service, Western Region, San Francisco. 1966.

Cook, Sherburne F. *The Epidemic of 1830-1833 in California and Oregon*. Berkeley: University of California Publications in American Archaeology and Ethnology 43(3):321-322. 1955.

Cook, Sherburne F. *The Conflict between the California Indian and White Civilization*. Berkeley: University of California Press. 1976.

Cook, Sherburne F. *The Population of the California Indians, 1769-1970*. Berkeley: University of California Press. 1976.

Du Bois, Cora A. "Wintu Ethnography". *University of California Publications in American Archaeology and Ethnology* 36:1-148. 1935.

Edwards, Robert L. *The Prehistory of the Pui'mak Wintun, Thomes Creek, Tehama County, California, including a Suggested Chronological Model of the Northern Sacramento Valley Region*. M.A. Thesis, Department of Anthropology, California State University, San Francisco. 1970.

Fiedel, S.J. Older Than We Thought: Implications of Corrected Dates for Paleoindians. In *American Antiquity* 64 (1):95-116. 1999.

Fiedel, S.J. The Peopling of the New World: Present Evidence, New Theories, and Future Directions. In *Journal of Archaeological Research* (8) 1:39-103. 2000.

Gudde, Edwin G. *California Place Names*. Berkeley: University of California Press. 1969.

Hamusek, Blossom. A Cultural Resource Survey of Nine Mile Hill Ranch Proposed Developments, Tehama County, California. Unpublished report (#1130) on file at NEIC, Chico, CA. 1992.

Hogue, Helen S., and Margaret Guilford-Kardell. *Wintu Trails*. Revised edition; originally published in 1948. Shasta Historical Society, Reading, California. 1977.

Hoover, Mildred B. *Historic Spots in California*. Stanford University Press. Stanford, CA. Third edition. 1966.

Jensen, Peter M. *Archaeological Reconnaissance at the Authorized Tehama and Dutch Gulch Reservoirs on Cottonwood Creek, Volumes I and II.* Ms. on file, U.S. Army Corps of Engineers, Sacramento, California. 1978.

Johnson, Jerald J. and Dorothea J. Theodoratus. *Cottonwood Creek Project, Shasta and Tehama Counties, California: Tehama Lake Intensive Cultural Resources Survey.* Ms. on file, U.S. Army Corps of Engineers, Sacramento, CA. 1982.

King, Jerome H. et al. Part I - Overview: A Class I Cultural Resources Overview and Existing Information Inventory for the Northwest California Integrated Resource Management Plan, Bureau of Land Management, Redding and Arcata Field Offices. Unpublished report (#014341) on file at NEIC, Chico, CA. 2016.

Kroeber, A.L. *Handbook of the Indians of California*. Washington: Bureau of American Ethnology, Bulletin 78. 1925.

Kuchler, A.W. *Natural Vegetation of California* (Map). *In* Terrestrial Vegetation of California. M.G, Barbour and J. Major eds. John Wiley and Sons, New York. 1997.

LaPena, Frank R. 1978. "Wintu." In *Handbook of North American Indians*. *Volume 8: California*. R. F. Heizer, ed. Washington, D.C.: Smithsonian Institution. pp. 324-340. 1978.

Merriam, C. H. Ethnographic Notes on California Indian Tribes. In *University of California Archaeological Survey Reports 68,* parts I, II, and III. Berkeley. 1966.

Meyer, Jack. A Geoarchaeological Overview and Assessment of Northeast California, Cultural Resources Inventory of Caltrans District 2 Rural Conventional Highways: Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama, and Trinity Counties. Unpublished report (#012349) on file at NEIC, Chico, CA. 2013.

Mohr, Albert. *Appraisal of the Archaeological Resources of Black Butte Reservoir, Glenn and Tehama Counties, California.* Unpublished manuscript, Pacific Coast Division, River Basin Surveys, Smithsonian Institute. Washington, D.C. 1949.

Moratto, Michael J. *California Archaeology*. Orlando, Florida: Academic Press, Inc. 1984.

Peterson, E. *In the Shadow of the Mountain, a Short History of Shasta County, California.* Redding, California. 1965.

Shasta County. *Shasta County Population Study*. By Shasta County Planning Department. On file, Shasta County Library, Boggs Collection. 1975.

Shipley, William. "Native Languages of California." In *Handbook of North American Indians. Volume 8: California*. R. F. Heizer, ed. Washington, D.C.: Smithsonian Institution. pp. 80-90. 1978.

Smith, C.E. and W.D. Weymouth. *Archaeology of the Shasta Dam Area, California.* In *University of California Archaeological Survey Reports 18,* Berkeley, CA. 1952.

Smith, Dottie. *The Dictionary of Early Shasta County History, 2nd Edition*. Self-published, Cottonwood, California. 1999.

State of California. *California Historical Landmarks*. Department of Parks and Recreation. Sacramento, CA. 1979.

State of California. *California Inventory of Historic Resources*. Department of Parks and Recreation. Sacramento, CA. 1976.

Sundahl, Elaine. *Archaeological Investigation in the Squaw Creek Drainage, Shasta County, California, Volume 1: Overview.* Report on file, Shasta College Archaeology Laboratory. 1992.

Trenganza, Adan E. Salvage Archaeology in Numbus and Redbank Reservoir Areas, Central California. In *University of California Archaeological Survey Reports No. 26.* Berkeley. 1954.

White G., D.A. Fredrickson, L. Hager, J. Meyer, J. Rosenthal, M. Waters, J. West, and E. Wohlgemuth. Culture History and Culture Change in Prehistoric Clear Lake Basin: Final Report of the Anderson Flat Project. In *Center for Archaeological Research at Davis, Publication No. 13.* University of California, Davis. 2002.

Willig, J.A. and C.M. Aikens. The Clovis-Archaic Interface in Far Western North America. In *Early Human Occupation in Far Western North America: The Clovis-Archaic Interface,* edited by J.A. Willig, C.M. Aikens, and J.L. Fagen, pp. 1-40. Nevada State Museum Anthropological Papers No. 21. Carson City, Nevada. 1988.

Maps

Denny, E. Map of Shasta County, California and Eastern Portion of Trinity County. Map on file, BLM, Redding, CA. 1904.

USGS 7.5' and 15' *Enterprise and Redding, California* Topographic Quadrangles 1944-2012.

Weigel, C.R. Map of the County of Shasta, California. W.B. Walkup and Son Map Publishers. On File, Shasta Historical Society. 1912.

Northeast Center of the
California Historical Resources
Information System

BUTTE
GLENN
LASSEN
MODOC
PLUMAS
SHASTA

SIERRA
SISKIYOU
SUTTER
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May 7, 2020

R.L. Hastings & Associates, LLC
P.O. Box 552
Placerville, CA 95667
Attn.: Mr. Roy Hastings

I.C. File # D20-58
Records Search

RE: Center of Hope Apartments / APN 067-110-052
T31N, R4W, Section 5
USGS Enterprise 7.5' and Redding (1944) 15' quadrangles
Approximately 10.5 acres map (Shasta County)

Dear Mr. Hastings,

In response to your request, a non-confidential records search for the project cited above was conducted by examining the official maps and records for cultural resources and surveys in Shasta County.

RESULTS:

Prehistoric Resources: According to our records, no resources of this type have been recorded in the project area. However, Native American village sites, bedrock mortars, midden deposits, flaked stone scatters, isolated cores, and fire-cracked rock have been recorded in the one-mile vicinity. The project is located in a region utilized by the *Stillwater* subgroup of Wintu populations. Unrecorded prehistoric cultural resources may be located within the project area.

Historic Resources: According to our records, no resources of this type have been recorded in the project area. However, one site of this type, consisting of a residential complex, has been recorded in the one-mile vicinity. Unrecorded historic cultural resources may be located in the project area.

The USGS Enterprise 7.5' and Redding (1944) 15' quadrangle maps indicate that the project area is located within Enterprise; Lawn Crest Cemetery, Seventh Day Adventist School, Mistletoe School, roads, and structures are located in the ¼-mile radius; and the San Buenaventura land grant, Redding, Interstate 5, the Sacramento River, Stillwater Plains, structures, and roads are located in the general project vicinity. The project is located in the historic Redding gold mining district.

The 1855 General Land Office (GLO) plat map depicts a trail in the vicinity of the project area.

Previous Archaeological Investigations: According to our records, areas within and adjacent to the project boundaries have been previously surveyed for cultural resources. In addition, two regional overview studies encompass the project area. The reports are listed below.

Brunmeier, Patrick and Gary Scholze (North State Resources, Inc.)
2005 *Archaeological Reconnaissance for Lowe's Home Center Project, Redding, Shasta County, California.*
NEIC Report 006488

Brunmeier, Patrick (Quercus Consultants)
2018 *Archaeological Survey Report for the Center of Hope Project, Redding*
NEIC Report 014256

King, Jerome H., William R. Hildebrandt, and Sharon A. Waechter (Far Western Anthropological Research Group, Inc.)
2016 *Part I – Overview: A Class I Cultural Resources Overview and Existing Information Inventory for the Northwest California Integrated Resource Management Plan, Bureau of Land Management Redding and Arcata Field Offices.*
NEIC Report 014341

Meyer, Jack (Far Western Anthropological Research Group, Inc.)
2013 *A Geoarchaeological Overview and Assessment of Northeast California, Cultural Resources Inventory of Caltrans District 2 Rural Conventional Highways: Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama, and Trinity Counties.*
NEIC Report 012349

Literature Search: The official records and maps for archaeological sites and surveys in Shasta County were reviewed. Also reviewed: **National Register of Historic Places - Listed properties and Determined Eligible Properties** (2012); **California Register of Historical Resources** (2012); **California Points of Historical Interest** (2012); **California Inventory of Historic Resources** (1976); **California Historical Landmarks** (2012); **Built Environment Resource Directory** (2019); and **Handbook of North American Indians, Vol. 8, California** (1978).

RECOMMENDATIONS:

Based upon the above information and the local topography, and regional history, the project is located in an area considered to be sensitive for prehistoric, protohistoric, and historic cultural resources. Wintu populations used the local region for seasonal and/or permanent settlement, as well as for the gathering of plants, roots, seeds, domestic materials, and hunting seasonal game. Historically, Euro-Americans utilized the region for farming, mining, and transportation opportunities.

Therefore, because the entire project area has not been previously surveyed, we recommend that a professional archaeologist be contacted to conduct a cultural resources review of the project area to assess the need for survey or subsurface investigations. The project archaeologist will be able to offer recommendations for the preservation of or mitigation of effects on any cultural resources encountered as a result of field survey. A list of qualified consultants is available online at www.chrisinfo.org.

The project archaeologist should also contact the appropriate local Native American representatives for information regarding traditional cultural properties that may be located within project boundaries for which we have no records. The Native American Heritage Commission should be contacted at (916) 373-3710 for information regarding Native American representatives in the vicinity of the project.

During any phase of parcel development, if any potential prehistoric, protohistoric, and/or historic cultural resources are encountered, all work should cease in the area of the find pending an examination of the site and materials by the project archaeologist. This request to cease work in the area of a potential cultural resource find is intended for accidental discoveries made during construction activities, and is not intended as a substitute for the recommended cultural resources survey.

The fee for this records search is $225.00 (1.5 hours of Information Center time @ $150.00 per hour). An invoice will follow from Chico State Enterprises for billing purposes. Thank you for your concern in preserving Shasta County's and California's cultural heritage, and please feel free to contact us if you have any questions or need any further information or assistance.

Sincerely,

Ryan Bradshaw
Assistant Coordinator

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
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Karuk

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Marshall McKay
Wintun

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER

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April . 6, 2020

Roy Hastings

R.L. Hastings and Associates

Via E-mail: roy@rlhastings.com

Re: Center of Hope Apartments, Shasta County

Dear Mr. Hastings:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,

Nancy Gonzalez-Lopez
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Shasta County
4/16/2020

Nor-Rel-Muk Nation
John Hayward, Chairperson
P.O. Box 1967 — Wintu
Weaverville, CA, 96093
Phone: (530) 410 - 1125
norermuk@com-pair.net

Pit River Tribe of California
Charles White, Tribal Administrator
36970 Park Ave — Pit River
Burney, CA, 96013 — Wintun
Phone: (530) 335 - 5421
Fax: (530) 335-3140

Pit River Tribe of California
Agnes Gonzalez, Chairperson
36970 Park Ave — Pit River
Burney, CA, 96013 — Wintun
Phone: (916) 372 - 9720
Fax: (530) 335-3140
1010@gmail.com

Pit River Tribe of California
Natalie Forrest-Perez, Tribal Historic Preservation Officer
36970 Park Ave — Pit River
Burney, CA, 96013 — Wintun
Phone: (530) 335 - 5421
THPO@pitrivertribe.org

Redding Rancheria
Jack Potter, Chairperson
2000 Redding Rancheria Road — Pit River
Redding, CA, 96001 — Wintu
Phone: (530) 225 - 8979 — Yana
Fax: (530) 241-1879
melodieh@redding-rancheria.com

Shasta Nation
Roy Hall, Chairperson
10808 Quartz Valley Road — Shasta
Fort Jones, CA, 96032
Phone: (530) 468 - 2314

Winnemem Wintu Tribe
Caleen Sisk, Chief
14840 Bear Mountain Road — Wintu
Redding, CA, 96003
Phone: (530) 229 - 4096
caleenwintu@gmail.com

Winnemem Wintu Tribe
Mark Miyoshi, Tribal Historic Preservation Officer
P. O. Box 774 — Wintu
Mount Shasta, CA, 96067
Phone: (530) 926 - 4408
markmwinnemem@gmail.com

Wintu Tribe of Northern California
Wade McMaster, Chairperson
P.O. Box 995 — Wintu
Shasta Lake, CA, 96019
Phone: (530) 605 - 1726
Fax: (530) 605-1727
wintu.tribe1@gmail.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Center of Hope Apartments, Shasta County.

Tribal Directory Assessment Information

Contact Information for Tribes with Interests in Shasta County, California

	Tribal Name	County Name
−	Grindstone Indian Rancheria of Wintun-Wailaki Indians of California	Shasta

Contact Name	Title	Mailing Address	Work Phone	Fax Number	Cell Phone	Email Address	URL
Ron Kirk	Chairperson	PO Box 63 Elk Creek, CA 95939-0063	(530) 968-5365	(530) 968-5366		gir_rancheria@yahoo.com	

	Tribal Name	County Name
−	Pit River Tribe, California	Shasta

Contact Name	Title	Mailing Address	Work Phone	Fax Number	Cell Phone	Email Address	URL
Mickey Gemmil	Chairperson	36970 Park Avenue Burney, CA 96013	(530) 335-5421	(530) 335-3140		resistentsresistent@outlook.com	http://www.pitrivertribe.org
Morningstar Gali	THPO	36970 Park Avenue Burney, CA 96013	(530) 335-5421 ext.1205	(530) 335-3140		mstargali@gmail.com	http://www.pitrivertribe.org

	Tribal Name	County Name
−	Redding Rancheria, California	Shasta

Contact Name	Title	Mailing Address	Work Phone	Fax Number	Cell Phone	Email Address	URL
Jack Potter	Chairman	2000 Redding Rancheria Redding, CA 96001	(530) 225-8979	(530) 241-1879		melodiet@redding-rancheria.com	http://www.redding-rancheria.com

1 - 3 of 3 results

« ‹ 1 › » 10 ▾

ATTACHMENT I - NOISE ABATEMENT

California/Railroads

< California

Major structure was split off from this wiki: for California's active freight rail, see California/Railroads/Active**, for California's active passenger rail, see** California/Railroads/Passenger.

4.15 TRANSPORTATION AND TRAFFIC

The purpose of the Transportation and Traffic section is to describe existing and future traffic circulation and parking patterns, and to evaluate the impact of the proposed project with regard to these conditions. The analysis evaluates conditions in the project vicinity that are likely to be affected by the changes in transportation and traffic attributed to the project.

Project implementation would result in increased traffic congestion at intersections and along roadways in the local area, with impact significance thresholds being exceeded at two locations: the Gas Point Road/northbound (NB) Interstate 5 (I-5) ramps intersection and the Riverside Avenue/NB I-5 ramps intersection. In addition, ingress/egress to the project site would be inadequate, as would emergency access at the affected on- and off-site locations. Further, project implementation could cause conflicts between automobile, pedestrian, and bicycle traffic.

Measures to reduce these impacts include signalizing the Gas Point Road/NB I-5 ramp intersection, providing a northbound left-turn lane on Balls Ferry Road at the Jim Dandy Drive site entrance, providing southbound left-turn lanes at two of the site entrances along Locust Road, either realigning the northern site access road to intersect Locust Road at Vantage Drive or providing a two-way left-turn lane on Locust Road between the northern site entrance and Vantage Drive, and extending Class II/III bikeways along Locust Road to Fourth Street.

Project implementation would also result in a significant Level of Service impact at the Riverside Avenue/NB I-5 ramps intersection. However, this location is not subject to Shasta County jurisdiction and no improvement plans and fee mechanisms are in place to provide for intersection improvements. Therefore, traffic impacts at this location are considered to be significant and unavoidable.

4.15.1 ENVIRONMENTAL SETTING

KD Anderson & Associates, Inc., prepared the *Traffic Impact Analysis for the Panorama Planned Development* (2008) to describe the impacts of the project and address mitigation requirements for roadways and intersections in the vicinity of the project. Impacts of the project have been considered within the context of existing traffic conditions, as well as under future traffic conditions that assume development of other approved projects and long-term traffic conditions occurring in the year 2030.

This analysis is in accordance with Shasta County instruction/input and Caltrans traffic study guidelines. Toward this end, existing traffic conditions have been evaluated through observation of current weekday daily and a.m./p.m. peak-hour traffic volumes, and current operating Levels of Service have been calculated at key intersections on the roads that would be used to access the site (Figure 4.15.1: Project Vicinity and Study Intersections)To assess project impacts, project trip generation has been estimated by applying appropriate trip generation rates to the project's land use inventory. Utilizing an

expected trip distribution derived from the Shasta County regional travel demand forecasting model, project-generated traffic was assigned to the study area street system based on recognizable least-time travel paths. Resulting "Existing Plus Project" traffic volumes were employed to calculate Levels of Service to determine the anticipated impacts of proposed development on existing traffic conditions.

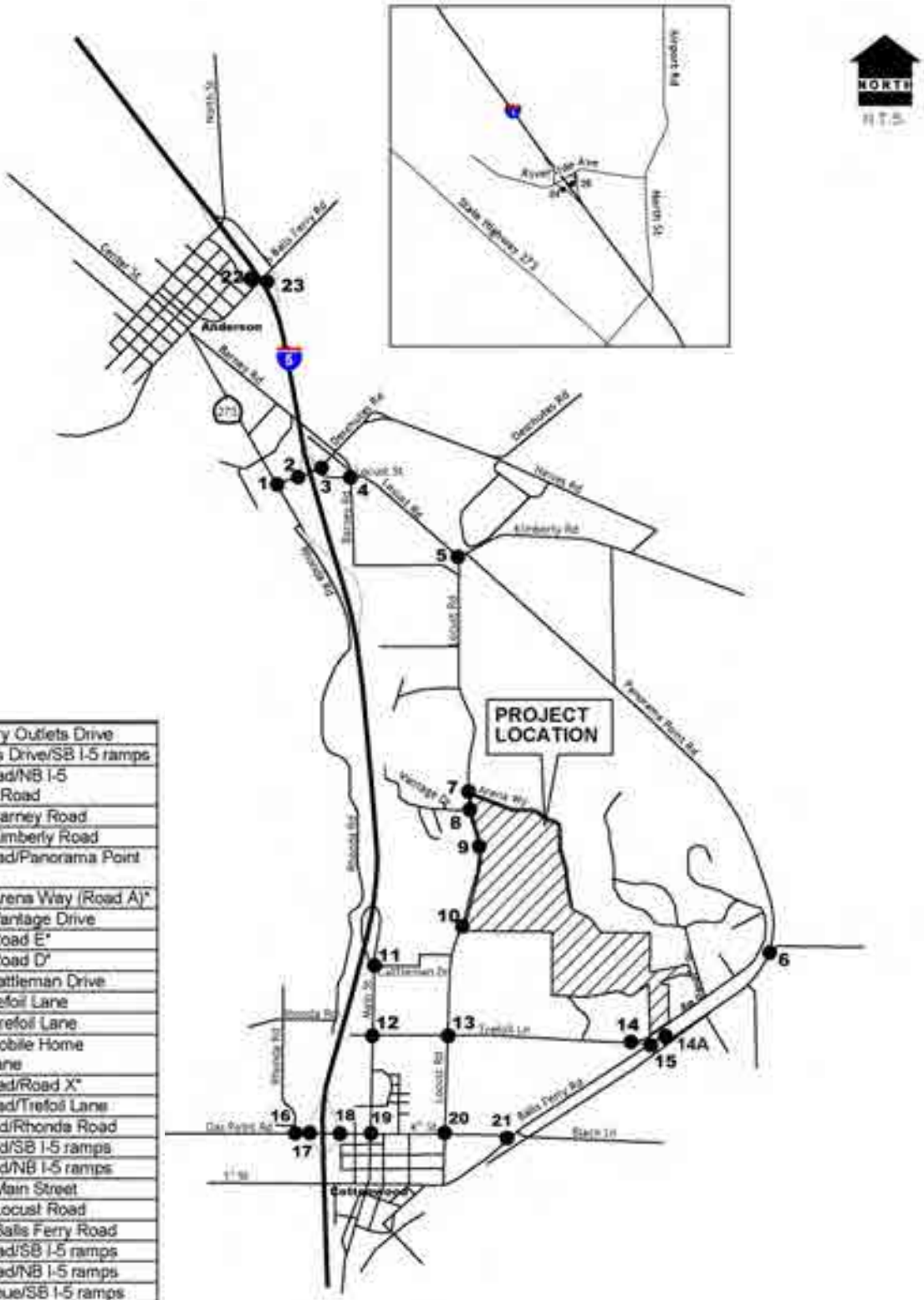
Two future cumulative traffic conditions were assessed: the first assuming development of "approved" projects, and the second based on Year 2030 traffic volume forecasts from the regional traffic model. Future traffic conditions with and without the proposed project were investigated. In each case, operating Levels of Service (LOS) were compared to adopted minimum standards and measures of significance used by applicable jurisdictions. Shasta County identifies an LOS C for new roads and requires mitigation when new projects reduce the LOS below E on existing transportation facilities. Caltrans' *Guide for the Preparation of Traffic Impact Studies* (State of California Department of Transportation, 2002), identifies a target service level of between LOS C and LOS D on State highway facilities, and the City of Anderson uses LOS D.

At the direction of Shasta County Department of Public Works and Caltrans staff, this analysis considers six scenarios (the latter four scenarios are addressed in Section 5.1: Cumulative Impacts):

1. Existing traffic conditions;
2. Existing traffic conditions plus trips generated by the Panorama Planned Development;
3. Short-term future conditions assuming build-out of approved off-site projects, without the proposed project;
4. Short-term future conditions with the Panorama Planned Development;
5. Future (Year 2030) cumulative traffic conditions without Panorama Planned Development (i.e., with existing designations), and
6. Future Year 2030 conditions with the Panorama Planned Development.

EXISTING ROADS

Traffic conditions on the street and highway system in southern Shasta County are influenced by local and regional commuter travel patterns, access to adjacent businesses and agricultural/commercial traffic. Regional access to the site is provided by Interstate 5 and its interchanges at Gas Point Road and at Deschutes Road. Local access is via Locust Road, Balls Ferry Road, and Panorama Point Road. Physical features of roadways providing circulation through the area are described below.



1.	SR 273/Factory Outlets Drive
2.	Factory Outlets Drive/SB I-5 ramps
3.	Deschutes Road/NB I-5 ramps/Locust Road
4.	Locust Road/Barney Road
5.	Locust Road/Kimberly Road
6.	Balls Ferry Road/Panorama Point Road
7.	Locust Road/Arena Way (Road A)*
8.	Locust Road/Vantage Drive
9.	Locust Road/Road E*
10.	Locust Road/Road D*
11.	Main Street/Cattleman Drive
12.	Main Street/Trefoil Lane
13.	Locust Road/Trefoil Lane
14.	Amberwood Mobile Home Park/Trefoil Lane
14A.	Balls Ferry Road/Road X*
15.	Balls Ferry Road/Trefoil Lane
16.	Gas Point Road/Rhonda Road
17.	Gas Point Road/SB I-5 ramps
18.	Gas Point Road/NB I-5 ramps
19.	Fourth Street/Main Street
20.	Fourth Street/Locust Road
21.	Fourth Street/Balls Ferry Road
22.	Balls Ferry Road/SB I-5 ramps
23.	Balls Ferry Road/NB I-5 ramps
24.	Riverside Avenue/SB I-5 ramps
25.	Riverside Avenue/NB I-5 ramps

* New road proposed within subdivision boundary, as shown in the *Panorama Planned Development Tentative Site Plans* (Appendices Compact Disc).

The map inset shows the Riverside Avenue/I-5 ramps intersection, which is located to the north of Anderson, outside of the range of this map.

Figure 4.15.1 ENPLAN

Project Vicinity and Study Intersections

(Source: KD Anderson & Associates, Inc., 2008)

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Interstate 5 (I-5)
Interstate 5 is the main north-south facility through Shasta County. The route traverses the State of California and enters Shasta County south of the Gas Point Road interchange and continues north through Anderson and Redding before leaving the county at Dunsmuir. Interstate 5 is a controlled access freeway with four mainline travel lanes. The speed limit on Interstate 5 is 70 mph. The most recent traffic counts available from Caltrans (in 2007) reveal that the freeway carries an average annual daily traffic (AADT) volume of 42,500 vehicles per day at the Tehama County line, 45,500 AADT north of the Gas Point Road interchange, and 61,000 AADT north of Deschutes Road. Trucks comprise roughly 14 percent of the daily traffic on Interstate 5 in southern Shasta County.

State Route 273 (SR 273)
State Route 273 is a major north-south arterial road that runs roughly parallel to I-5 for approximately 20 miles from Anderson through Redding. The highway originates at an interchange on I-5 just south of Anderson and continues northerly through both communities before returning to I-5 north of Lake Boulevard in Redding. State Route 273 carries 10,700 AADT at its southern connection to I-5; at that point, trucks comprise 8 percent of the daily traffic volume.

Balls Ferry Road
Balls Ferry Road is a two-lane arterial road that extends from the Cottonwood area near Interstate 5 northeasterly into the rural area east of the project before turning to the west and returning to Interstate 5 near Anderson. Balls Ferry Road carries approximately 1,500 vehicles per day in the vicinity of the proposed project.

Deschutes Road
Deschutes Road links SR 273 with I-5 in Anderson and continues northeasterly across the Sacramento River to an intersection with SR 299 east of Redding. Deschutes Road is constructed as a four-lane minor arterial in Anderson west of Interstate 5. While today the road is two lanes wide east of I-5, Deschutes Road is designated as a four-lane arterial in the *Shasta County General Plan*.

Panorama Point Road
Panorama Point Road is a two-lane collector street that links Ball Ferry Road on the south with Locust Road near the I-5/Deschutes Road interchange. Panorama Point Road is generally 24 feet wide with limited shoulders.

Main Street
Main Street is a four-lane arterial street that links the downtown area of Cottonwood with Interstate 5 east of the project site. Main Street carries approximately 6,400 vehicles per day in the area between downtown Cottonwood and I-5.

Locust Road
Locust Road is a two-lane collector street that runs parallel to and east of I-5 from Cottonwood to the I-5/Deschutes Road interchange. Locust Road is roughly 24 feet in width with limited shoulders, and the road follows the rolling terrain of the project area. Locust Road provides primary access to the western side of the Panorama project site. The volume of traffic on Locust Road varies along its length, with roughly 700 vehicles per day counted in the area from Fourth Street to Kimberly Road and 3,200 vehicles per day in the area from Kimberly Road to the Deschutes Road interchange.

Fourth Street and Gas Point Road
Fourth Street and Gas Point Road provide primary east-west circulation through the community of Cottonwood. Each is a two-lane road with left turn lanes. Gas Point Road is designated in the *Shasta County General Plan* as a four-lane arterial road west of Main Street. Fourth Street is designated as a two-lane arterial road east of Main Street. Gas Point Road carries 13,000 vehicles per day west of Interstate 5, while the volume on Fourth Street east of Main Street is 3,050 vehicles per day.

Trefoil Lane
Trefoil Lane is a local east-west road that links Main Street with Balls Ferry Road in the area south of the proposed project. Trefoil Lane is approximately 24 feet wide with limited shoulders. Trefoil Lane carries approximately 650 vehicles per day.

Cattleman Drive
Cattleman Drive is an unpaved two-lane local road that connects Main Street near the I-5 ramps with Locust Road.

Jim Dandy Drive
Jim Dandy Drive is an unpaved local road that intersects Balls Ferry Road just east of Trefoil Lane. Jim Dandy Drive parallels the Union Pacific Railroad (UPRR) and Balls Ferry Road to the northeast, then turns north, providing access to rural residential and agricultural lands.

Arena Way
Arena Way is a minimally improved private road that provides access to the northern portion of the project site.

BICYCLE FACILITIES

The *Regional Transportation Plan* (Shasta County RTPA, 2004) outlines the location and nature of existing bicycle facilities in Shasta County. Bicycle facilities are categorized within three classifications:

- Class I Bikeways are trails or paths that are separated from automobile traffic;

- Class II Bikeways are bicycle lanes that are on-street but delineated by striping; and
- Class III Bikeways are bicycle routes where bicycles and automobiles share the road.

Today there are no designated bicycle facilities on the rural roads in the immediate vicinity of the project. The closest facilities are on Deschutes Road.

EXISTING TRANSIT FACILITIES

Public transportation within Shasta County is provided by the Redding Area Bus Authority (RABA), which offers both fixed-route and demand-response transit services. RABA currently operates fixed routes for the cities of Redding, Shasta Lake, and Anderson, and para-transit vehicles for demand-response service. All fixed routes operate Monday through Friday on one-hour headways. However, fixed route service is not available to the project site, and the closest stop is on SR 273 near the Deschutes Road/Factory Outlets interchange.

RAIL SERVICE

Union Pacific Railroad provides rail service through Shasta County. The Union Pacific single track main line runs parallel to Interstate 5 and carries both passengers and freight. The *Shasta County General Plan* notes that train movements average 24 per day within the Redding Metropolitan area.

Within the project area there are existing at-grade rail crossings at Balls Ferry Road and at Kimberly/Locust Road. There are additional at-grade crossings near intersections of SR 273 as rails parallel SR 273 from South Street in Anderson north into the City of Redding. Grade separated crossings are provided at I-5, Deschutes Road, and Main Street.

The configuration of the existing railroad crossing near the project site is unconventional. The Balls Ferry crossing near Trefoil Lane moves the alignment of Balls Ferry Road from the west site of the railroad to the east side of the rails through a pair of reversing curves. The curve radii are approximately 100 feet and are shorter than would be considered standard for the design speed of the road. Measures to advise motorists of these curves have been installed on Balls Ferry Road in advance of the crossing. The crossing is controlled by gates in both directions.

EXISTING TRAFFIC CONDITIONS

Peak Hour Traffic Volumes

To assess existing traffic conditions, KD Anderson & Associates, Inc., utilized recent data presented in *The Vineyards at Anderson DEIR* (City of Anderson, 2008). This data was supplemented with a.m. and p.m. peak-hour turning movement counts at study intersections near the project, which were obtained during February and April 2008.

(Current peak-hour traffic volumes and the lane configurations at each intersection are shown in Figures 3 and 3a of Appendix G.: Traffic)

LEVEL OF SERVICE METHODOLOGIES

To assess the quality of existing traffic conditions, Levels of Service (LOS) were calculated at study area intersections and for individual roadway segments. "Level of Service" is a qualitative measure of traffic operating conditions whereby a letter grade "A" through "F", corresponding to progressively worsening traffic operating conditions, is assigned to an intersection or roadway segment. Table 4.15.1 presents the characteristics associated with each LOS grade. As shown in Table 4.15.1, LOS "A", "B" and "C" are considered satisfactory to most motorists, while LOS "D" is marginally acceptable. LOS "E" and "F" are associated with severe congestion and delay and are unacceptable to most motorists.

Table 4.15.1
Level of Service Definitions

Level of Service	Signalized Intersection	Unsignalized Intersection	Roadway (Daily)
"A"	Uncongested operations, all queues clear in a single-signal cycle. Delay ≤ 10.0 sec	Little or no delay. Delay ≤ 10 sec/veh	Completely free flow.
"B"	Uncongested operations, all queues clear in a single cycle. Delay > 10.0 sec and ≤ 20.0 sec	Short traffic delays. Delay > 10 sec/veh and ≤ 15 sec/veh	Free flow, presence of other vehicles noticeable.
"C"	Light congestion, occasional backups on critical approaches. Delay > 20.0 sec and ≤ 35.0 sec	Average traffic delays. Delay > 15 sec/veh and ≤ 25 sec/veh	Ability to maneuver and select operating speed affected.
"D"	Significant congestions of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. Delay > 35.0 sec and ≤ 55.0 sec	Long traffic delays. Delay > 25 sec/veh and ≤ 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
"E"	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). Delay > 55.0 sec and ≤ 80.0 sec	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and ≤ 50 sec/veh	At or near capacity, flow quite unstable.
"F"	Total breakdown, stop-and-go operation. Delay > 80.0 sec	Intersection blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.

Source: KD Anderson & Associates, Inc., 2008. (Data from Caltrans Highway Capacity Manual, 2000)

Shasta County identifies an LOS C for new roads and requires mitigation when new projects reduce the LOS below E on existing transportation facilities. Caltrans' *Guide for the Preparation of Traffic Impact Studies* (State of California Department of Transportation, 2002), identifies a target service level of between LOS C and LOS D on State highway facilities, and the City of Anderson uses LOS D.

Level of Service at Intersections

Levels of Service were calculated for different intersection control types using the respective methods presented in the *Highway Capacity Manual* (Caltrans, 2000). Intersection Levels of Service were calculated using TRAFFIX version 7.9 software.

Level of Service on Roadway Segments

As previously mentioned, a Level of Service may be calculated on a street or roadway segment. In urban areas, general roadway Levels of Service can suggest probable peak-hour conditions based on application of typical peak-hour/daily traffic relationships. Table 4.15.2 presents Level of Service thresholds for various streets classifications that have been presented in previous Shasta County traffic studies.

Table 4.15.2
Roadway Segment Daily Volume Level of Service Thresholds

Roadway	No. of Lanes*	Maximum Volume for Given Service Level				
		A	B	C	D	E
Freeway	4	24,000	28,000	32,000	36,000	40,000
Major Arterial	4	22,000	25,000	29,000	32,500	36,000
Major Collector	2	11,000	12,500	14,500	16,000	18,000
Minor Collector	2	9,000	10,500	12,000	13,500	15,000
Local Street	2	22,000	2,600	3,000	3,400	38,000

Source: KD Anderson & Associates, Inc., 2008.

* Total number of lanes in both directions Source: Shasta Ranch Mining and Reclamation Plan DEIR

In response to Caltrans District 2 request, the Level of Service on Interstate 5 through the study area was evaluated using the procedures contained in the *Highway Capacity Manual.* These procedures were the basis for Level of Service calculations presented in the *Interstate 5 Transportation Concept Report* (Caltrans, 2008). As noted in Table 4.15.3, vehicle density, expressed in terms of cars per mile per lane, is the evaluation measure.

Table 4.15.3
Freeway Level of Service Thresholds

Level of Service	Density Range (passenger cars/mile/lane)	
	Mainline	Ramp Merge - Diverge
A	0-11	≤ 10
B	11-18	10 – 20
C	18-26	20 – 28
D	26-35	28 – 35
E	35-45	> 35
F	>45	Demand exceeds capacity

Source: KD Anderson & Associates, Inc., 2008.

The operation of freeway ramps in the immediate vicinity of the point of entry and exit from the mainline has also been evaluated. The procedures for calculating Level of Service at ramp merge/diverge areas on freeways are also presented in the *Highway Capacity Manual*. As noted in Table 4.15.3, vehicle density in the ramp influence area, also expressed in terms of passenger cars per mile per lane, is the evaluation parameter employed to identify Level of Service.

CURRENT LEVELS OF SERVICE

Intersections

Table 4.15.4 presents existing Levels of Service at the study intersections. In addition, Table 4.15.4 also indicates whether the study intersections satisfy Caltrans' peak-hour volume warrants for signalization.

As Table 4.15.4 indicates, most of the study area intersections operate at LOS D or better, but there are three exceptions. During the p.m. peak hour, the Gas Point Road/Rhonda Road intersection operated at LOS E. However, Shasta County recently signalized this intersection; with the new signal, the intersection operates at LOS C or better. During the a.m. peak hour, motorists waiting at the NB I-5 off ramp/Gas Point Road intersection experience delays that are indicative of LOS F. During the a.m. peak hour, the Riverside Avenue/NB I-5 ramp intersection operates at LOS E.

Table 4.15.4
Existing Intersection Levels of Service and Signal Warrants

Intersection	Control	AM Peak Hour		PM Peak Hour		Warrants Met?*
		LOS	Average Delay (sec)	LOS	Average Delay (sec)	
1. SR 273/Factory Outlets Drive	Signal	B	19.9	B	18.5	n.a.
2. Factory Outlets Drive/SB I-5 ramps	Signal	B	11.8	B	15.4c	n.a
3. Deschutes Road/NB I-5 ramps/Locust Road	All-Way Stop	B	10.7	B	11.8	No
4. Locust Road/Barney Road	NB/SB Stop	B	10.1	B	11.1	No
5. Locust Road/Kimberly Road	NB/SB Stop	A	8.9	A	8.9	No
6. Balls Ferry Road/Panorama Point Road	SB Stop	A	9.0	A	9.0	No
7. Locust Road/Arena Way (Road A)***	WB Stop	-	-	-	-	-
8. Locust Road/Vantage Drive	EB Stop	A	8.7	A	8.8	No
9. Locust Road/Road E***	WB Stop	-	-	-	-	-
10. Locust Road/Road D***	WB Stop	-	-	-	-	-
11. Main Street/Cattleman Drive	WB Stop	B	12.2	B	11.9	No
12. Main Street/Trefoil Lane	EB/WB Stop	B	13.3	B	11.0	No
13. Locust Road/Trefoil Lane	EB/WB Stop	A	9.6	A	9.4	No
14. Amberwood Mobile Home Park/Trefoil Lane	SB Stop	A	8.5	A	8.6	No
15. Balls Ferry Road/Trefoil Lane	EB Stop	A	9.2	A	9.2	No
16. Gas Point Road/Rhonda Road	All-Way stop	C	21.7**	**E***	**48.5****	Yes
17. Gas Point Road/SB I-5 ramps	SB Stop	B	14.0	B	13.3	No
18. Gas Point Road/NB I-5 ramps	NB Stop	**F**	**74.3**	D	32.5	No
19. Fourth Street/Main Street	All-Way stop	B	10.7	A	9.9	No
20. Fourth Street/Locust Road	NB/SB Stop	B	10.8	B	10.2	No
21. Fourth Street/Balls Ferry Road	EB Stop	A	9.2	A	9.2	No
22. Balls Ferry Road /SB I-5 ramps	Signal	B	14.2	B	16.2	n.a.
23. Balls Ferry Road/NB I-5 ramps	Signal	C	21.7	C	27.9	n.a.
24. Riverside Avenue/SB I-5 ramps	SB Stop	C	15.5	C	19.2	No
25. Riverside Avenue/NB I-5 ramps	NB Stop	**E**	**42.8**	C	16.8	No

Source: KD Anderson & Associates, Inc., 2008.
BOLD indicates a Level of Service in excess of adopted minimum standard.
* Indicates whether or not Level of Service criteria have been exceeded to the point of warranting an infrastructure update.
** Intersection has been signalized since time of study.
*** New road proposed within subdivision boundary, as shown in the *Panorama Planned Development Tentative Site Plans* (Appendices Compact Disc).

Roadway Segment Level of Service Based on Daily Traffic Volumes

The current daily traffic volumes reported on Shasta County roads in the study area suggest that these facilities provide Levels of Service that satisfy the LOS C minimum. As shown in Table 4.15.5, the highest volume of traffic is on Gas Point Road west of Interstate 5, and this volume is indicative of LOS C.

Table 4.15.5
Existing Roadway Levels of Service

Street	Location	Lanes	Facility Type	Existing Conditions	
				Daily Volume	LOS
Locust Road	Barney Road to Kimberly Road	2	Minor Collector	3,191	A
	Kimberly Road to Vantage Drive	2		744	A
	Vantage Drive to Trefoil Lane	2		711	A
	Trefoil Lane to Fourth Street	2		711	A
Gas Point Road	Rhonda Road to SB I-5	2	Major Collector	13,002	C
Fourth Street	Main Street to Locust Road	2	Major Collector	3,055	A
Main Street	Fourth Street to I-5	4	Major Collector	6,379	A
Balls Ferry Road	Fourth Street to Trefoil Lane	2	Minor Collector	1,531	A
	Trefoil Lane to Panorama Point Road	2		1,500	A
Panorama Point Road	Kimberly Road to Balls Ferry Road	2	Minor Collector	800	A
Trefoil Lane	Main Street to Locust Road	2	Minor Collector	653	A
	Locust Road to Balls Ferry Road	2		653	A

Source: KD Anderson & Associates, Inc., 2008.

Levels of Service on Interstate 5

The Level of Service occurring today on mainline Interstate 5 is identified in Table 4.15.6. These results assume year 2007 daily volumes reported by Caltrans and the analysis methodology contained in the *Interstate 5 Transportation Concept Report*. As shown, the Levels of Service on Interstate 5 range from LOS C to LOS D, which is considered to be within an acceptable range.

Table 4.15.6
Mainline Interstate 5 Levels of Service

Location	Lanes	Existing Conditions		
		Volume	Density (pc/mi/ln)	LOS
South of Gas Point Road	4	42,500	20.4	C
Gas Point Road to Main Street	4	51,000	30.3	D
Main Street to SR 273	4	51,000	30.3	D
SR 273 to Deschutes Road	4	51,000	30.3	D
Deschutes Road to Balls Ferry Road	4	62,000	27.6	D
Balls Ferry Road to North Street	4	62,000	27.6	D
North Street to Riverside Avenue	4	62,000	27.6	D
Riverside Avenue to Knighton Road	4	63,000	23.9	C
Knighton Road to South Bonnyview Drive	4	56,000	21.4	C

Source: KD Anderson & Associates, Inc., 2008.

Levels of Service at Interstate 5 Ramps

Levels of Service at study area ramps have been determined, and the results are identified in Table 4.15.7. These results assume mainline peak-hour directional volumes identified by Caltrans. As noted, the ramp merge-diverge areas along Interstate 5 operate at LOS C or better.

Table 4.15.7
Existing Peak Hour Ramp Levels of Service
At Interstate 5 Interchanges

Direction	Ramp	Action	AM Peak Hour			PM Peak Hour		
			Volume	Density (pc/mi/ln)	Level of Service	Volume	Density (pc/mi/ln)	Level of Service
I – 5/Riverside Avenue								
Southbound	On ramp	Merge	185	19	B	255	25	C
Northbound	Off ramp	Diverge	245	25	C	210	23	C
I-5/North Street								
Southbound	Off ramp	Diverge	375	21	C	555	27	C
Northbound	On ramp	Merge	510	24	C	475	21	C
I-5/Balls Ferry Road								
Southbound	On ramp	Merge	250	18	B	400	24	C
Northbound	Off ramp	Diverge	320	23	C	380	22	C
I-5 /Deschutes Road								
Southbound	Off ramp	Diverge	235	20	B	515	26	C
Northbound	On ramp	Merge	310	22	C	350	20	B
I-5/SR 273								
Southbound	On ramp	Merge	300	19	B	400	23	C
Northbound	Off ramp	Diverge	330	24	C	305	21	C
I-5/Main Street								
Southbound	Off ramp	Diverge	215	20	C	310	24	C
Northbound	On ramp	Merge	210	21	C	175	19	B
I-5/Gas Point Road								
Southbound	Off ramp	Diverge	155	13	B	280	16	B
Northbound	On ramp	Merge	465	18	B	300	16	B
Southbound	On ramp	Merge	195	19	B	205	21	C
Northbound	Off ramp	Diverge	135	18	B	155	18	B

Source: KD Anderson & Associates, Inc., 2008.

REGULATORY SETTING

A discussion of transportation-related state and local regulations, as well as objectives and policies in the *Shasta County General Plan* that are pertinent to the transportation analysis for the project, are included below.

California Department of Transportation (Caltrans)
Caltrans policies are applicable to I-5 and SR-273, and are summarized in the *Caltrans' Guide for the Preparation of Traffic Impact Studies* (State of California Department of Transportation, 2002). These guidelines identify when a traffic impact study is required, what should be included in the study, analysis scenarios, and guidance on acceptable analysis methodologies. Caltrans endeavors to maintain a target service level of between LOS C and LOS D on State highway facilities; however, this may not always be feasible and a lower service level may be acceptable.

Regional Transportation Planning Agency (RTPA)
The Shasta County Regional Transportation Planning Agency (RTPA) is the agency responsible for transportation planning for the Shasta County region, including the three cities and the unincorporated area. The planning process is in compliance with the laws and guidelines developed by Caltrans and the Federal Department of Transportation. This responsibility includes development and adoption of transportation policy direction, review and coordination of transportation planning, preparation and endorsement of an Overall Work Program (OWP), a Regional Transportation Plan (RTP), a Regional Transportation Improvement Plan (RTIP), and a Federal Transportation Improvement Plan (FTIP). (RTPA, 2006)

Shasta County General Plan
The *Shasta County General Plan* Circulation Element sets forth future plans for the transportation system in the County. Objectives and policies pertaining to transportation are shown below:

Objective

C8 To ensure that adequate provision for expanding opportunities for rail transport and trucking service are accommodated in the County's overall transportation plans.

Policies

C-6a Future road and street development including future right-of-way shall comply with the adopted County Development Standards.

C-6c New residential lots less than five acres in size in urban and/or suburban residential areas shall avoid direct access to arterial and collectors. Where feasible, such lots shall be served by an internal street system. In all other cases, maximize intersection and driveway spacing on arterial and collector streets. Where feasible, utilize shared/common driveways.

C-6g All new land divisions shall be provided with a legally accessible road.

C-6j New development shall provide circulation improvements for emergency access by police, fire, and medical vehicles; and shall provide for escape by

residents/occupants in accordance with the *Shasta County Fire Safety Standards*.

C-6k Shasta County shall adopt the following Level of Service (LOS) standards for considering any new roads:

- Rural arterials and collectors - LOS C
- Urban/suburban arterials and collectors - LOS C

C-6l New development, which may result in exceeding LOS E on existing facilities, shall demonstrate that all feasible methods of reducing travel demand have been attempted to reach LOS C. New development shall not be approved unless traffic impacts are adequately mitigated. Such mitigation may take the form of, but not be limited to the following:

- Provision of capacity improvements to the specific road link to be impacted, the transit system, or any reasonable combination;
- Provision of demand reduction measures included as part of the project design or project operation or any feasible combination.

C8b Working in conjunction with Caltrans the County shall designate and provide signed truck routes, ensure that adequate pavement depth, lane widths, loading areas, bridge capacities, vertical height of overpasses and utility lines, and turn radii are maintained on the designated truck routes, and prohibit commercial truck traffic from non-truck routes except for deliveries.

C8c Adequate truck access to off-street loading areas in commercial and industrial areas shall be provided in all new development applications.

4.15.2 THRESHOLDS OF SIGNIFICANCE

Criteria for determining the significance of impacts related to transportation and traffic were based on the Environmental Checklist Form in Appendix G of the State CEQA Guidelines (Cal. Code Regs., Title 14, Section 15000 et seq.). An impact related to transportation and traffic was considered significant if it would:

- Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections).
- Exceed, either individually or cumulatively, a Level of Service standard established by the County Congestion Management Agency for designated roads or highways.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Result in inadequate parking capacity.
- Conflict with adopted policies plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

To further refine the second bullet statement above, Shasta County has determined that a project may have significant impacts on traffic and circulation if it results in any of the following:

Intersections:

- An intersection that operates acceptably (LOS A, B, C, or D) without the project is degraded to an unacceptable LOS (E or F) due to the additional traffic from the project.
- An intersection that is operating at an unacceptable LOS without the project, experiences an increase of 5 or more seconds of control delay due to the addition of project traffic.

Roadway Segments:

- A roadway segment that operates acceptably (LOS A, B, C, or D) without the project is degraded to an unacceptable LOS (E or F) due to the additional traffic from the project.
- A roadway segment that operates unacceptably experiences an increase in its daily volume to capacity ratio (V/C) of 0.05 or greater due to the addition of project traffic.

Freeway Ramp Merge, Diverge:

- A freeway ramp that is operating at an acceptable level (LOS A, B, C, or D) deteriorates to an unacceptable level (LOS E or F) due to the addition of project traffic.
- A freeway ramp that is operating at an unacceptable level experiences an increase of 10 or more passenger car equivalents (PCE's).

Design*:*

- Result in more than **50** left-turning vehicles per hour at an intersection without a separate left-turn lane.

4.15.3 ENVIRONMENTAL IMPACTS AND MITIGATION

Impact TRA-4.15-1 Substantial Increase in Traffic *(Significant and Unavoidable Impact)*

This section describes the impacts resulting solely from build-out of the Panorama Planned Development. Project impacts have been quantified by estimating the number and directional distribution of project trips, and by superimposing those trips onto current background traffic volumes. Levels of Service were then calculated for the "Existing Plus Project" conditions. (Cumulative impacts resulting from other anticipated development are described in Section 5.1.). The design of access and circulation system improvements accompanying the project has also been reviewed.

PROJECT CHARACTERISTICS

Trip Generation

The number of automobile trips generated by the proposed project can be estimated through application of rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation*, *Seventh Edition* (2007). Table 4.15.8 presents the trip generation rates for the proposed project, and Table 4.15.9 presents the number of trips generated by the proposed subdivision. As noted, the Panorama Planned Development, as proposed, would generate 4,115 daily trips, with 323 and 434 trips occurring during the weekday a.m. and p.m. peak hour, respectively. Development of the site under current General Plan designations, with 130 single-family residences, would generate 1,244 daily trips, with 98 and 132 trips during the a.m. and p.m. peak hours, respectively.

Table 4.15.8
Trip Generation Rates

Land Use	Trips Per Dwelling Unit						
	Daily	AM Peak Hour			PM Peak Hour		
		inbound	outbound	total	inbound	outbound	total
Single Family Residential	9.57	0.19	0.56	0.75	0.65	0.36	1.01

Source: KD Anderson & Associates, Inc., 2008.

Table 4.15.9
Trip Generation Estimate

Land Use	Quantity	Trips						
		Daily	AM Peak Hour			PM Peak Hour		
			inbound	outbound	total	inbound	outbound	total
Panorama Planned Development (Proposed Project)	430 DU's	4,115	82	241	323	280	155	434
Current GP designation	130 DU's	1,244	25	73	98	85	47	132

Source: KD Anderson & Associates, Inc., 2008.
DU = Dwelling Unit

Trip Distribution

The distribution of trips to and from the project site was determined based on information developed from the Shasta County regional travel demand forecasting model. The results

were then reviewed and refined to account for the location of site access. Table 4.15.10 presents the trip distribution for project generated traffic. As shown, roughly 1/3 of the site trips are expected to be oriented to the south and 2/3 would be expected to be headed north.

Table 4.15.10
Project Trip Distribution

Direction	Route	Percentage of Total Trips
North	North on I-5 beyond Knighton Road	25.5%
	Knighton Road east of Interstate 5	2.0%
	Riverside Avenue west of Interstate 5	5.9%
	Balls Ferry Road west of Interstate 5	1.2%
	Balls Ferry Road east of Interstate 5	9.9%
	SR 273 north of Factory Outlets Drive – Deschutes Road	8.3%
	SR 273 south of Factory Outlets Drive – Deschutes Road	8.0%
East	Deschutes Road east of Locust Road	2.5%
	Kimberly Road east of Locust Road	0.6%
	Balls Ferry Road east of Panorama Point Road	0.8%
	Black Lane east of Balls Ferry Road	0.9%
West	Gas Point Road west of Interstate 5	6.0%
South	Interstate 5 south of Gas Point Road	8.6%
	Cottonwood south of Fourth Street	12.7%
	Cottonwood north of Fourth Street	7.1%
	Total	100%

Source: KD Anderson & Associates, Inc., 2008.

Trip Assignment

Having identified the overall directional orientation of project trips, it was next necessary to assign those trips to the local street system. This assignment required review of the location of project's access and internal circulation system and identification of the “least time path” between various locations on the site and regional destinations. Information in the *Shasta County Southern Region Transportation Planning Study* (Shasta County RTPA, 2006) was also considered.

The proposed plan includes three connections to Locust Road in the area between Cottonwood and Deschutes Road. The on-site circulation system would link Locust Road with Balls Ferry Road in the area of the Trefoil Lane intersection. While the overall regional destinations would be the same, because of the scale of the project, trips originating towards the western side of the site would choose routes that are different from those made by residences closer to the eastern boundary.

Figure 4.15.2: Trip Distribution identifies the assignment of project traffic on the study area street system at project build-out when all on-site roads have been constructed and the project is fully occupied. Review of this forecast reveals that approximately 85 percent of the site trips would access the site via Locust Road and 15 percent would use the access on Balls Ferry Road. (The distribution of project-only trips at study area intersections is shown in Figures 5 and 5a of Appendix G: Traffic.)

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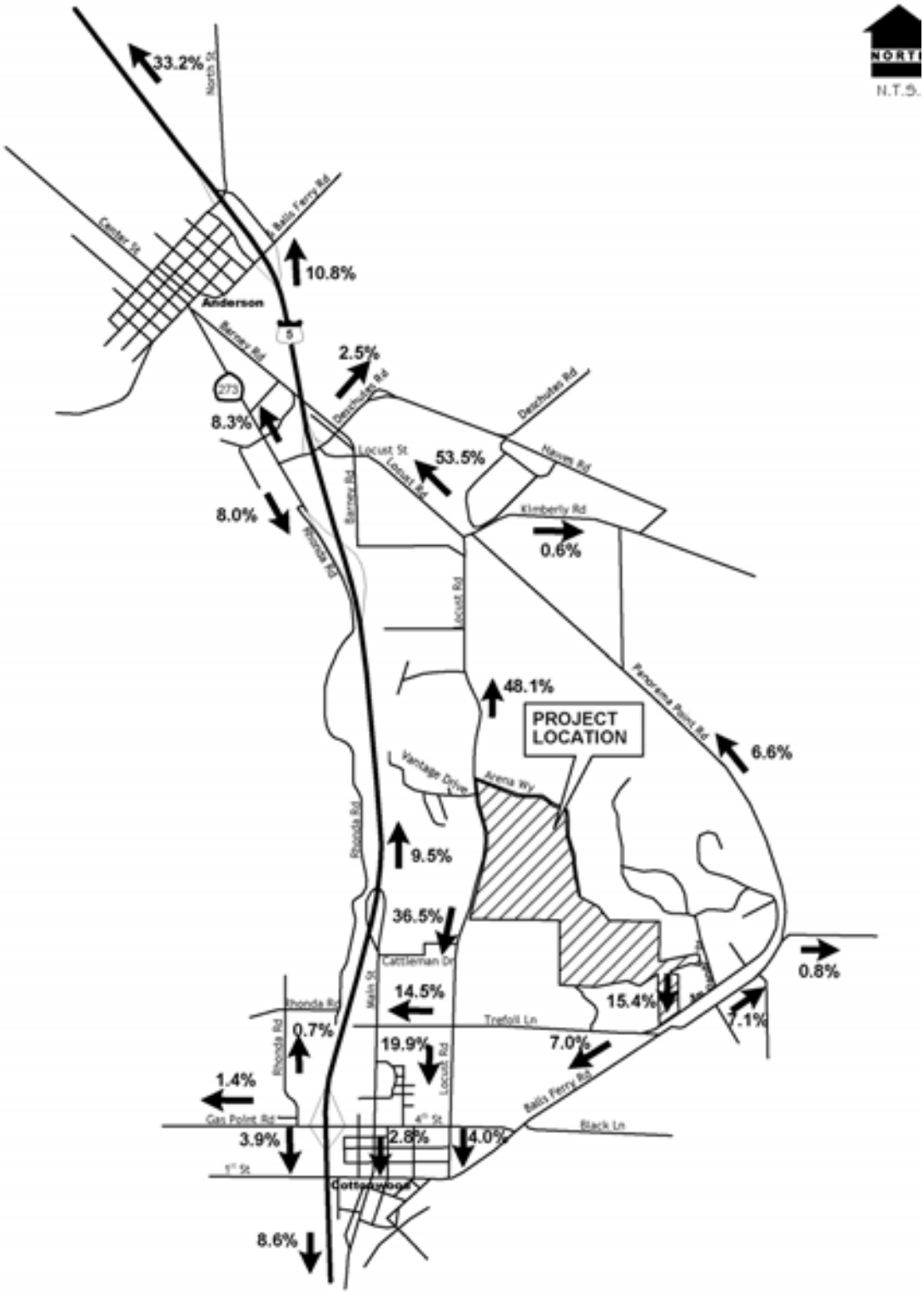

Figure 4.15.2

Trip Distribution

(Source: KD Anderson & Associates, Inc., 2008)

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EXISTING PLUS PROJECT TRAFFIC CONDITIONS

"Existing plus Project" peak-hour traffic volumes were created by superimposing project traffic onto existing background conditions (Shown in Figures 6 and 6a: Existing Plus Project Traffic Volumes and Lane Configurations of Appendix G: Traffic). Resulting peak-hour intersection Levels of Service were calculated for this condition, as presented in Table 4.15.11. Table 4.15.12 compares daily traffic volumes on areas streets with and without the proposed project.

Assumed Improvements

The Existing Plus Project condition assumes implementation of roadway improvements that are included in the project description. At the southeastern end of the site, these proposed improvements include re-aligning Jim Dandy Drive intersection with Balls Ferry Road to provide greater separation from the railroad crossing. (See Figure 4.15.3)

Level of Service at Intersections

As shown in Table 4.15.11, the addition of trips generated by the proposed project would incrementally increase the length of delays experienced at study area intersections. However, with two exceptions, the resulting Level of Service at study intersections would remain within the LOS thresholds adopted by Shasta County and the City of Anderson.

Development of the project would increase delays at the Gas Point Road/NB I-5 ramps intersection, where current condition is LOS F in the a.m. peak hour. In this case, the incremental increase in delay resulting from the project is 10.9 seconds. Because the a.m. value exceeds the 5.0 threshold employed by Shasta County, the project's impact to this intersection would be significant.

Development of the project would increase the length of delays at the Riverside Avenue/NB I-5 ramps intersection. The current Level of Service for side-street traffic is LOS E in the a.m. peak hour, and the addition of project trips would reduce the Level of Service to LOS F. As the incremental increase in delay associated with the project (i.e., 7.2 seconds) exceeds the 5.0 second threshold, the impact to this intersection would be significant.

Levels of Service on Roadway Segments

Based on the thresholds of significance adopted by Shasta County, the addition of project traffic would not result in Level of Service impacts to the roadway segments maintained by the County, as shown in Table 4.15.12. Because minimum Levels of Service could be maintained, the project's impact to County roads would not be significant.

Table 4.15.11
Existing Plus Project Intersection Levels of Service

Intersection	Control	AM Peak Hour				PM Peak Hour				Warrants Met?
		Existing		Ex Plus Project		Existing		EX plus Project		
		LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	
1. SR 273/Factory Outlets Drive	Signal	B	19.9	C	20.2	B	18.5	B	19.0	n.a.
2. Factory Outlets Drive/SB I-5 ramps	Signal	B	11.8	B	11.9	B	15.4c	B	15.7	n.a
3. Deschutes Road/NB I-5 ramps/Locust Road	All-Way Stop	B	10.7	B	13.1	B	11.8	C	17.3	No
4. Locust Road/Barney Road	NB/SB Stop	B	10.1	B	11.7	B	11.1	B	14.2	No
5. Locust Road/Kimberly Road	NB/SB Stop	A	8.9	A	9.9	A	8.9	A	9.6	No
6. Balls Ferry Road/Panorama Point Road	SB Stop	A	9.0	A	9.2	A	9.0	A	9.0	No
7. Locust Road/Arena Way (Road A)*	WB Stop	-	-	A	9.2	-	-	A	9.3	No
8. Locust Road/Vantage Drive	EB Stop	A	8.7	A	9.1	A	8.8	A	9.3	No
9. Locust Road/Road E*	WB Stop	-	-	A	9.1	-	-	A	9.2	No
10. Locust Road/Road D*	WB Stop	-	-	A	9.4	-	-	A	9.5	No
11. Main Street/Cattleman Drive	WB Stop	B	12.2	B	11.5	B	11.9	B	12.2	No
12. Main Street/Trefoil Lane	EB/WB Stop	B	13.3	B	13.3	B	11.0	B	11.6	No
13. Locust Road/Trefoil Lane	EB/WB Stop	A	9.6	B	10.2	A	9.4	B	10.2	No
14. Amberwood Mobile Home Park/Trefoil Lane	SB Stop	A	8.5	A	8.6	A	8.6	-	-	No
14A.Balls Ferry Road/Road X*	EB Stop	-	-	A	9.3			A	9.0	No
15.Balls Ferry Road/Trefoil Lane	EB Stop	A	9.2	A	9.4	A	9.2	A	9.4	No
16. Gas Point Road/Rhonda Road	Signal	C	26.5	C	26.8	C	28.1	C	28.5	n.a.
17. Gas Point Road/SB I-5 ramps	Signal	B	10.9	B	11.7	B	15.9	B	16.2	n.a.
18. Gas Point Road/NB I-5 ramps	NB Stop	**F**	**74.3**	**F**	**85.2**	D	32.5	D	32.7	No
19. Fourth Street/Main Street	All-Way stop	B	10.7	B	11.3	A	9.9	B	10.6	No
20. Fourth Street/Locust Road	NB/SB Stop	B	10.8	B	11.9	B	10.2	B	11.6	No
21. Fourth Street/Balls Ferry Road	EB Stop	A	9.2	A	9.3	A	9.2	A	9.4	No
22. Balls Ferry Road/SB I-5 ramps	Signal	B	14.2	B	14.2	B	16.2	B	16.2	n.a.
23. Balls Ferry Road/NB I-5 ramps	Signal	C	21.7	C	21.9	C	27.9	C	28.2	n.a.
24. Riverside Avenue/SB I-5 ramps	SB Stop	C	15.5	C	15.9	C	18.7	C	19.2	No
25. Riverside Avenue/NB I-5 ramps	NB Stop	**E**	**42.8**	**F**	**50.0**	C	16.3	C	16.8	No

Source: KD Anderson & Associates, Inc., 2008.
Bold text indicates Level of Service in excess of adopted minimum standard. Highlighted conditions are significant.
* New road proposed within subdivision boundary, as shown in the *Panorama Planned Development Tentative Site Plans* (Appendices Compact Disc).

Table 4.15.12
Existing Plus Project Roadway Levels of Service

Street	Location	Lanes	Facility Type	Existing Conditions		Existing Plus Project		
						Daily Volume		
				Daily Volume	LOS	Project Only	Total	LOS
Locust Road	Barney Road to Kimberly Road	2	Minor Collector	3,191	A	2,210	5,401	A
	Kimberly Road to Road A*	2		744	A	1,900	2,644	A
	Road A* to Road D*	2		711	A	1,040	1,751	A
	Road D* to Trefoil Lane	2		711	A	1,415	2,126	A
	Trefoil Lane to Fourth Street	2		711	A	810	1,521	A
Gas Point Road	Rhonda Road to SB I-5	2	Major Collector	13,002	C	250	13,252	C
Fourth Street	Main Street to Locust Road	2	Major Collector	3,055	A	670	3,725	A
Main Street	Fourth Street to I-5	4	Major Collector	6,379	A	400	6,779	A
Balls Ferry Road	Fourth Street to Trefoil Lane	2	Minor Collector	1,531	A	300	1,831	A
	Trefoil Lane to Road X*	2		1,500	A	350	1,850	A
	Road X* to Panorama Point Road	2		1,500	A	280	1,780	A
Panorama Point Road	Kimberly Road to Balls Ferry Road	2	Minor Collector	800	A	280	1,080	A
Trefoil Lane	Main Street to Locust Road	2	Minor Collector	653	A	600	1,253	A
	Locust Road to Balls Ferry Road	2		653	A	40	693	A

Source: KD Anderson & Associates, Inc., 2008.
* New road proposed within subdivision boundary, as shown in the *Panorama Planned Development Tentative Site Plans* (Appendices Compact Disc).

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Figure 4.15.3

Proposed Jim Dandy Drive Realignment

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Table 4.15.13
Existing Plus Project Mainline Interstate 5 Level of Service

Location	Lanes	Existing Conditions			Existing Plus Project				
		Daily Volume	Density (Pc/mile/ lane)	LOS	Daily Volume			Density (pc/mi/ln)	LOS
					Project Only	Total	Net v/c		
South of Gas Point Road	4	42,500	20.4	C	355	42,855	<0.010	20.9	C
Gas Point Road to Main Street	4	51,000	30.3	D	400	51,400	<0.010	30.7	D
Main Street to SR 273	4	51,000	30.3	D	400	51,400	<0.010	30.7	D
SR 273 to Deschutes Road	4	51,000	30.3	D	400	51,400	<0.010	30.7	D
Deschutes Road to Balls Ferry Road	4	62,000	27.6	D	1,840	63,840	0.023	28.8	D
Balls Ferry Road to North Street	4	62,000	27.6	D	1,380	63,380	0.017	28.5	D
North Street to Riverside Avenue	4	62,000	27.6	D	1,380	63,380	0.017	28.5	D
Riverside Avenue to Knighton Road	4	63,000	23.9	C	1,135	64,135	0.014	24.9	C
Knighton Road to South Bonnyview Drive	4	56,000	21.4	C	1,050	57,050	0.013	21.8	C
Capacity of 4 lane assumed to be 80,000 ADT at LOS E.									

Source: KD Anderson & Associates, Inc., 2008.

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Levels of Service on Mainline Interstate 5
The addition of project traffic may exacerbate the LOS D conditions already occurring on mainline Interstate 5, as noted in Table 4.15.13. However, as Caltrans endeavors to maintain a target service level of between LOS C and LOS D on State highway facilities, the project's impact to mainline Interstate 5 would not be significant.

Level of Service at Interstate 5 ramps
As shown in Table 4.15.14, the addition of project traffic would increase vehicle density in the area of Interstate 5 ramps. Project traffic would result in the Level of Service on southbound Interstate 5 deteriorating to LOS D in the area of the North Street southbound off-ramp. However, as Caltrans endeavors to maintain a target service level of between LOS C and LOS D on State highway facilities, the project's impact to Interstate 5 at this location would not be significant.

MITIGATION CONSIDERATIONS

The extent to which off-site roadway improvements or transportation programs are needed to mitigate the impacts of the proposed project is described below. In some cases, the project proponent is expected to provide the full improvements needed. In other cases, where the contribution of project-generated traffic is minimal, it is more appropriate for the project proponent to contribute a "fair-share" payment for the cost of the improvements. Traffic impact fee programs are currently in place or are being considered to establish funding mechanisms for some of the recommended improvements. An overview of these programs is provided below, followed by the discussion of recommended mitigations and possible funding mechanisms for such improvements.

In accordance with a recent court decision [*Tracy First v. City of Tracy* (August 27, 2009)—Cal.App.4th], where traffic impacts occur outside of the lead agency's jurisdiction and there is no traffic mitigation plan and fee program in place, payment of a "fair share" contribution is not necessary. Under these circumstances, mitigation is not "fully enforceable" since there is no way to ensure that any mitigation funds collected would actually be applied toward the identified mitigation; the impact is therefore considered significant and unavoidable. (Association of Environmental Professionals, 2009)

Existing and Contemplated Traffic Impact Fee Programs
The following existing and planned improvement programs apply to the proposed project.

South Region Transportation Planning Study and Traffic Impact Fee Program. The Shasta County Regional Transportation Planning Agency conducted a comprehensive review of circulation needs and improvement options in the South County area. The study investigated alternatives for new arterial routes west of Interstate 5 and identified options of improving the Interstate 5 interchanges at Gas Point Road and at Main Street. The total cost of identified improvements is $52 million. The project site is within the Zone of Benefit for the planning study and fee program.

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Table 4.15.14
Existing Plus Project Peak Hour Ramp Levels of Service at Interstate 5 Interchanges

			AM Peak Hour							PM Peak Hour						
			Existing			Ex Plus Project Volume				Existing			Ex Plus Project Volume			
Direction	Ramp	Action	Vol	Den	LOS	Project Only	Total	Den	LOS	Vol	Den	LOS	Project Only	Total	Den	LOS
I-5/Riverside Avenue																
Southbound	On ramp	Merge	185	19	B	5	190	19	B	255	25	C	17	272	26	C
Northbound	Off ramp	Diverge	245	25	C	14	259	26	C	210	23	C	9	219	23	C
I-5/North Street																
Southbound	Off ramp	Diverge	375	21	C	0	375	21	C	555	27	C	0	555	28	D
Northbound	On ramp	Merge	510	24	C	0	510	25	C	475	21	C	0	475	22	C
I-5/Balls Ferry Road																
Southbound	On ramp	Merge	250	18	B	9	259	18	B	400	24	C	31	431	25	C
Northbound	Off ramp	Diverge	320	23	C	27	347	24	C	380	22	C	17	402	22	C
I-5 /Deschutes Road																
Southbound	Off ramp	Diverge	235	20	B	28	263	20	C	515	26	C	98	613	27	C
Northbound	On ramp	Merge	310	22	C	84	394	23	C	350	20	B	54	404	21	C
I-5/SR 273																
Southbound	On ramp	Merge	300	19	B	0	300	19	B	400	23	C	0	400	23	C
Northbound	Off ramp	Diverge	330	24	C	0	330	24	C	305	21	C	0	305	21	C
I-5/Main Street																
Southbound	Off ramp	Diverge	215	20	C	8	223	20	C	310	24	C	27	337	25	C
Northbound	On ramp	Merge	210	21	C	23	233	21	C	175	19	B	15	190	19	B
I-5/Gas Point Road																
Southbound	Off ramp	Diverge	155	13	B	0	155	13	B	280	16	B	0	280	16	B
Northbound	On ramp	Merge	465	18	B	0	465	18	B	300	16	B	0	300	16	B
Southbound	On ramp	Merge	195	19	B	21	216	19	B	205	21	C	13	218	21	C
Northbound	Off ramp	Diverge	135	18	B	7	142	18	B	155	18	B	24	179	18	B

Source: KD Anderson & Associates, Inc., 2008.

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With regard to the locations impacted by the Panorama Planned Development, the South Region study identified the following improvement projects:

Main Street Interchange Improvements. The Main Street Interchange Improvements project would create a connection to the area west of Interstate 5 and construct round-about intersections at the ramp terminals. The estimated cost of these improvements is $9.8 million.

Interim Improvements to the I-5/Gas Point Road Interchange. The Interim Improvements to the I-5/Gas Point Road Interchange project would widen Gas Point Road to the extent feasible without widening the existing overcrossing. Resulting intersection geometry would include left-turn lanes on Gas Point Road at the SB and NB ramp intersections and at the Rhonda Road intersection. These intersections would also be signalized (signalization of the Gas Point Road/SB I-5 ramp intersection was recently completed). This improvement has an estimated cost of $3.7 million.

Ultimate Improvements to the I-5/Gas Point Road Interchange. The Ultimate Improvements to the I-5/Gas Point Road Interchange project would widen the structure over Interstate 5 and relocate the southbound ramp intersection to provide greater separation from Rhonda Road. The estimated cost of this improvement is $12.2 million, of which $7.2 million would be borne locally.

Deschutes Interchange Fee Program. Shasta County and the City of Anderson collect fees towards improvements to the I-5/Deschutes interchange from a local area that lies on both sides of the freeway but is generally north of the Panorama Planned Development. The southern limit of the County area that contributes to the cost of interchange improvements lies immediately north of the Panorama Planned Development site.

Fix 5 Partnership. Caltrans District 2, Shasta County RTPA, and the Tehama County Transportation Commission, as well as Shasta County, Tehama County, and their incorporated cities, are engaged in a process to identify and fund long-term improvements to the 61-mile-long Interstate 5 corridor through Shasta and Tehama counties. The focus of the partnership has been creation of a third travel lane in each direction on mainline Interstate 5. The nexus study prepared for corridor improvements estimated the cost of a 6-lane Interstate 5 at $546 million and identified an accompanying impact fee that would be assigned to new development. However, the impact fee has not yet been adopted by the local agencies that would have to agree to participate in the fee program.

Mitigation Recommendations

The Gas Point Road/NB I-5 intersection would need to be signalized to deliver an adequate Level of Service. The project applicant could contribute its fair share to the cost of this improvement by paying adopted fees. However, this action would not guarantee that the signal would be installed by the time that the Panorama Planned Development project adds traffic to the intersection. The intersection cannot be signalized without installing a portion of the interim I-5/Gas Point Road interchange improvement project, and the total cost of this improvement is approximately $3.7 million. Because Shasta County

has recently made improvements to the west side of the interchange, improvements to the east side of the interchange are judged to be within the capability of the project proponents with reimbursement for costs beyond the project's fair share. Thus, this impact can be mitigated to a less than significant level. The project proponent should signalize the intersection when Caltrans and Shasta County determine the signal warrants are satisfied.

The Riverside Avenue/NB I-5 ramps intersection would need to be signalized in order to deliver an adequate Level of Service. Although the City of Anderson is considering creation of a district to fund improvements to the I-5/Riverside Avenue interchange, no plans or fee mechanisms have been adopted. Further, there is no guarantee that Caltrans would agree to signalize the intersection. Because Shasta County has no jurisdiction over this intersection and no plans or fees programs are currently in place, mitigation is not feasible and the impact would be significant and unavoidable.

The following mitigation is necessary to improve intersection Levels of Service:

> **MM TRA-4.15-1**. The project proponent shall signalize the Gas Point Road/NB I-5 ramps intersection. The signal shall be installed when Shasta County, in consultation with Caltrans, determines that signal warrants are satisfied.

Following mitigation, impacts at the Gas Point Road/NB I-5 ramps intersection would be less than significant. However, impacts at the Riverside Avenue interchange would be significant and unavoidable.

Impact TRA-4.15-2 Exceed a Level of Service Standard for Designated Roads or Highways *(Significant and Unavoidable Impact)*

Project implementation would result in significant Level of Service impacts at the Gas Point Road/NB I-5 ramps and at the Riverside Avenue/NB I-5 ramps. See analysis under Impact TRA-4.15-1.

Implementation of Mitigation Measure TRA-4.15-1 would reduce the above Level of Service impacts at the Gas Point Road/NB I-5 ramps intersection to an acceptable level; however, as discussed above, Level of Service impacts at the Riverside Avenue/NB I-5 ramps intersection would remain significant and unavoidable.

Impact TRA-4.15-3 Result in a Change in Air Traffic Patterns *(No Impact)*

The project is not in the vicinity of a public or private airstrip. There would be no impact on air traffic patterns.

No mitigation measures are necessary as there would be no impact on air traffic patterns.

Impact TRA-4.15-4 Substantially Increase Hazards Due to a Design Feature or Incompatible Uses *(Less-than-Significant Impact with Mitigation Incorporated)*

NEW BALLS FERRY ROAD ACCESS

As indicated in the current site plan/tentative map, the Jim Dandy Drive intersection with Balls Ferry Road would be relocated to the southwest. This access would be approximately 180 feet from the Trefoil Lane intersection and 80 feet from the beginning of the short-radius curve on Balls Ferry Road that turns across the railroad.

The feasibility of developing access at this location without modifying other parts of Balls Ferry Road is dependent on factors such as sight distance at the new location, speed of traffic on Balls Ferry Road, the amount of traffic turning at the adjoining Trefoil Lane intersection and the effect on the existing UPRR crossing. Because the terrain in the area along Balls Ferry Road is relatively level, adequate sight distance would be available looking to the south. Looking north, motorists should be able to see southbound traffic on the other side of the UPRR. Because of the tight curves, the speed of traffic on this portion of Balls Ferry Road is constrained as the curves have a comfortable speed of only 15 mph (HDM Table 203.2). The volume of traffic turning off of and onto Trefoil Lane is low (i.e., fewer than 15 vehicles per hour).

The new Road X intersection would be roughly 180 feet north of the existing Trefoil Lane intersection. Local agencies typically adopt standards for minimum distance between offset intersections in order to reduce conflicts between turning vehicles. These standards range from 150 feet on local/collector roads to 250 feet on higher speed arterials. In this case, the distance between Road X and Trefoil Lane could be a concern under high speed conditions, but would be adequate for slowly moving traffic.

The effect of the new intersection on the UPRR crossing would relate to the possibility of vehicles queuing on the crossing in conflict with a train. Assuming the new intersection had stop control on the Road X approach, southbound vehicles should not be stopped at the intersection and would not be queuing back towards the tracks. Northbound traffic may occasionally be stopped by traffic waiting to turn left, but this would not affect the crossing.

Overall, the addition of a new intersection may add a degree of confusion to a location that is unconventional at best. Because the current road alignment slows traffic, it would be feasible to add this closely spaced intersection. However, to address the additional turning traffic, it would be beneficial to widen Balls Ferry Road to provide a left-turn lane at the new access even though the left-turning volume is less than the County's 50 vph threshold.

LOCATION OF NEW INTERSECTIONS ON LOCUST ROAD

The Road A intersection would be roughly 200 feet north of the existing Vantage Drive intersection, and the new Road E intersection would be roughly 1,000 feet south of that intersection. As noted above, typical standards for minimum distance between offset

intersections range from 150 feet on local/collector roads to 250 feet on higher speed arterials. In this case, due to the speed on Locust Road, the distance between Road A and Vantage Drive could be a concern. The subdivision should either be re-configured to align these intersections, or a continuous two-way left-turn lane should be developed between the intersections.

LEFT TURN LANES AT NEW INTERSECTIONS

The need for left-turn lanes at the proposed new access intersections has been evaluated based on the County's 50 vph threshold. This criterion was compared to the cumulative traffic volumes anticipated at the project access intersections to determine if left-turn lanes could be needed. At the Road A (Arena Way) intersection on Locust Road the left-turn volume is 84 vph, and at the Road E intersection on Locust Road the p.m. peak-hour left-turn volume is projected to be 48 vph. Southbound left-turn lanes would be needed at each location. The number of left turns at the Road D intersection on Locust Road would be minimal, and none of the internal intersections within the subdivision are expected to have left-turning volumes that would justify left-turn lanes. Additional acceleration, deceleration, and/or right-turn lanes are not necessary, as overall traffic volumes are relatively low.

INTERNAL CIRCULATION

The volume of traffic occurring on internal project streets has been estimated. Highest volumes are expected on Road A near the project's western limits where a count of 1,500 vehicles per day is expected. The volume on Road A would drop at locations to the east, with 1,150 vehicles per day east of the Road C intersection and 500 vehicles per day in the area of Road T. The projected daily traffic volume on Road D through the western residential area would range from 500 to 1,000 vehicles per day. These volumes can be accommodated by the two-lane roads planned through the site, and direct residential frontage can be accommodated.

Implementation of Mitigation Measure TRA-4.15-4 would mitigate potentially significant design-feature impacts to a less-than-significant level.

MM TRA-4.15-4

4) The project proponent shall widen Balls Ferry Road to provide a northbound left-turn lane at the new access.

5) The project proponent shall widen Locust Road to provide a southbound left-turn lane at the Road A intersection. Road A shall be moved to align with Vantage Drive or a two-way left-turn lane shall be constructed between the two intersections.

6) The project proponent shall widen Locust Road to provide a southbound left-turn lane at the Road E intersection.

Impact TRA-4.15-5 Result in Inadequate Emergency Access *(Less-than-Significant Impact with Mitigation Incorporated)*

Implementation of the project as proposed would result in increased congestion at off-site intersections and substandard access to the project site, as discussed under Impact TRA-4.15-1 and Impact TRA-4.15-4. However, the Levels of Service would drop below acceptable standards at only two intersections: Gas Point Road/NB I-5 ramps and Riverside Avenue/NB I-5ramps. First-response emergency vehicles are expected to originate from Cottonwood or Anderson, and are highly unlikely to use the Riverside Avenue/I-5 NB ramps, which are on the north side of Anderson. Implementation of Mitigation Measures TRA-4.15-1 would improve the Level of Service at the Gas Point Road/NB I-5 ramps intersection to an acceptable level, while Mitigation Measures TRA-4.15-4 would ensure adequate access to the site from both Locust Road and Balls Ferry Road.

With implementation of these two measures, potential impacts with respect to emergency access would be less than significant.

Impact TRA-4.15-6 Result in Inadequate Parking Capacity *(No Impact)*

All residences would be developed in accordance with the *Shasta County Zoning Plan,* and would include the required number of parking spaces per dwelling unit.

There would be no impact with respect to parking capacity. No mitigation measures are necessary.

Impact TRA-4.15-7 Conflict with Alternative Transportation *(Less-than-Significant Impact with Mitigation Incorporated)*

TRANSIT

Development of the project could increase the need for transit services and alternative transportation modes to serve the Cottonwood/South County area. However, development of this project alone would not result in an increase in demand that would create a significant impact that would necessitate changing current transit operations. Considering the type of development, a semi-rural single-family residential development, the number of potential new transit riders would be relatively small.

PEDESTRIANS/BICYCLISTS

With development of the project, additional pedestrian (including school children) and bicycle traffic could be created on the roads that link the site with Cottonwood and with the retail opportunities west of Interstate 5. Project design includes a Class I Bikeway through the project site, connecting Locust Road with Balls Ferry Road. However, the proposed Class I Bikeway does not provide any connection between the project site and Cottonwood, school sites, or other community services, and conflicts could result between automobiles, pedestrians, and bicyclists in those areas. To mitigate for these potential conflicts, the project applicant should provide Class II/III Bikeways on both sides of Locust Road, within the existing right-of-way, to Fourth Street. Class II Bikeways should be

established in areas where Shasta County currently has sufficient right-of-way; Class III Bikeways should be established in areas where Shasta County does not currently have adequate right-of-way for a Class II facility. It is anticipated that Class II Bikeways would be established at a future date, when the County acquires right-of-way in those areas.

MM TRA-4.15-7
The project applicant or its successors in interest shall provide Class II/III Bikeways on both sides of Locust Road, within the existing right-of-way, from the northern site boundary to Fourth Street. Class II Bikeways shall be established in areas where Shasta County currently has sufficient right-of-way; Class III Bikeways shall be established in areas where Shasta County does not currently have sufficient right-of-way for a Class II facility.

Following mitigation, impacts related to alternative transportation modes are considered to be less than significant.

4.15.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the recommended mitigation measures (MM TRA-4.15-1, MM TRA-4.15-4, and MM TRA-4.15.7) would reduce the following project impacts to a less-than-significant level:

- Increased congestion of other intersections and along other roadways in the study area, including the Gas Point Road/NB I-5 ramps intersection.
- Potential hazards due to proposed design features.
- Potential constraints with respect to emergency access.
- Potential conflicts with increased pedestrian and bicycle traffic.

No feasible mitigation is available to Shasta County to improve the Level of Service at the Riverside Avenue/NB I-5 ramps intersection. Therefore, traffic impacts at this location are considered to be significant and unavoidable.

End of Section.

ATTACHMENT J - SSA

ArcGIS Web Map

1/25/2019, 12:09:29 PM

Sole Source Aquifers - Labels

SSA

1:4,622,324

0 55 110 220 mi

0 90 180 360 km

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Web AppBuilder for ArcGIS

Esri, HERE, Garmin, NGA, USGS, NPS | US EPA Office of Water | Map Service and data: US EPA Office of Environmental Information (OEI). Data: US Census Bureau |

ATTACHMENT K - WETLANDS PROTECTION

U.S. Fish and Wildlife Service
National Wetlands Inventory

1201 Industrial Way, Redding, CA

March 31, 2020

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

ATTACHMENT L - W & S RIVERS

Legend

ATTACHMENT M - ENVIRONMENTAL JUSTICE

`

	0.12 miles	0.25 miles	0.5 miles	0.75 miles	1.0 miles	State	Region	U.S.
Particulate	5.88	5.88	5.89	5.89	5.9	9.78	9.21	8.3
Ozone	48.7	48.7	48.7	48.7	48.7	48.2	48.9	43
Diesel PM	.31	.31	.308	.305	.297	.468	.479	.479
Air Toxics	46	46	46	46	46	36	35	32
Resp Haz	.76	.76	.76	.75	.76	.55	.53	.44
Traffic Prox	1200	1200	1000	870	890	2000	1700	750
Lead Paint	.16	.16	.15	.19	.18	.29	.24	.28
Superfund	.054	.054	.054	.053	.053	.18	.15	.13
RMP	.45	.45	.41	.37	.35	1.1	.99	.74
Haz Waste	.39	.39	.39	.39	.38	3.4	2.9	4
Wastewater	.0029	.0029	.0033	.0046	.01	17	31	14
Dem Index	33%	33%	33%	37%	40%	48%	47%	36%
Min. Pop.	28%	28%	24%	26%	27%	62%	59%	39%
Low Income	37%	37%	43%	48%	53%	34%	34%	33%
Ling. Isolated	0%	0%	1%	1%	1%	9%	8%	4%
< H.S.	13%	13%	13%	15%	14%	18%	17%	13%
Under 5	3%	3%	7%	7%	7%	6%	6%	6%
Over 64	25%	25%	16%	15%	14%	13%	14%	15%

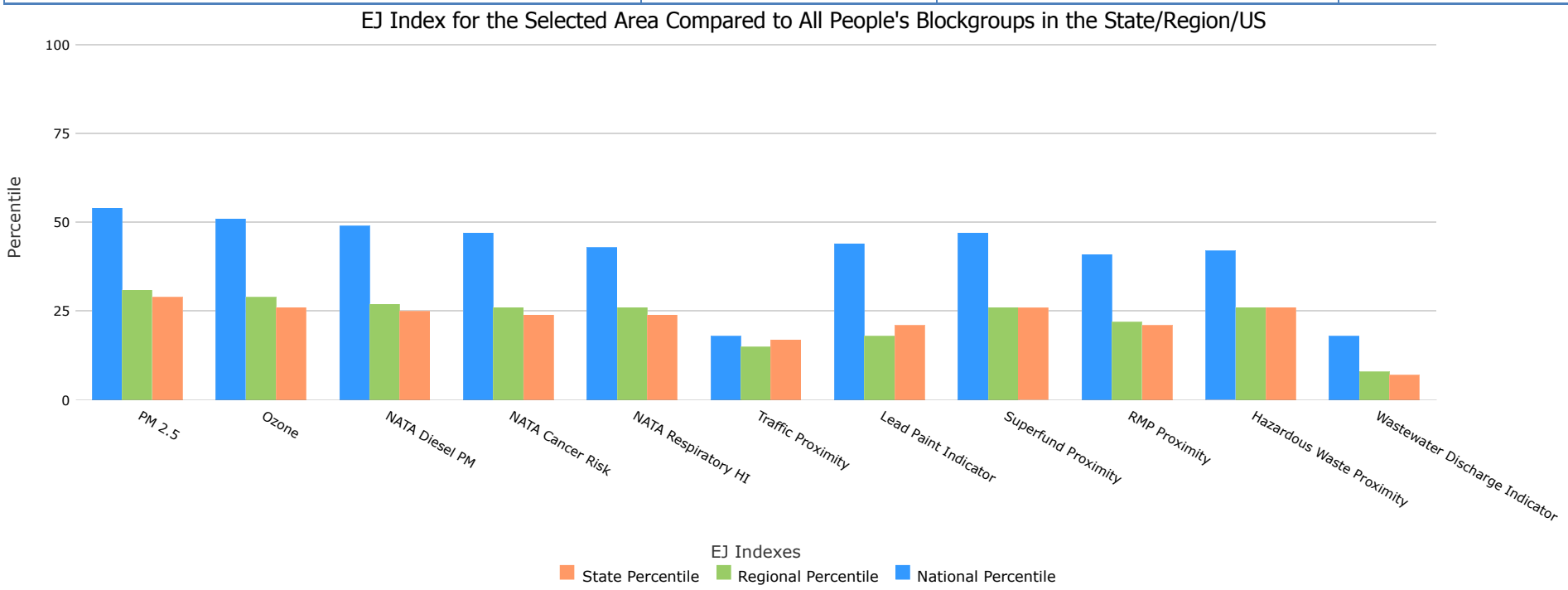
	State, Region, U.S
	Higher than one
	Higher than two
	Higher than three

Save as PDF

EJSCREEN Report (Version 2019)

0.5 miles Ring Centered at 40.574685,-122.348533
CALIFORNIA, EPA Region 9
Approximate Population: 2,042
Input Area (sq. miles): 0.79

Selected Variables	Percentile in State	Percentile in EPA Region	Percentile in USA
EJ Indexes			
EJ Index for Particulate Matter (PM 2.5)	29	31	54
EJ Index for Ozone	26	29	51
EJ Index for NATA* Diesel PM	25	27	49
EJ Index for NATA* Air Toxics Cancer Risk	24	26	47
EJ Index for NATA* Respiratory Hazard Index	24	26	43
EJ Index for Traffic Proximity and Volume	17	15	18
EJ Index for Lead Paint Indicator	21	18	44
EJ Index for Superfund Proximity	26	26	47
EJ Index for RMP Proximity	21	22	41
EJ Index for Hazardous Waste Proximity	26	26	42
EJ Index for Wastewater Discharge Indicator	7	8	18



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

April 20, 2020

Project 1

Search Result (point)

1:4,514

0 0.04 0.08 0.17 mi

0 0.06 0.12 0.24 km

Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Sites reporting to EPA

Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

Selected Variables	Value	State		EPA Region		USA	
		Avg.	%tile	Avg.	%tile	Avg.	%tile
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m^3)	5.89	9.78	3	9.21	6	8.3	6
Ozone (ppb)	48.7	48.2	53	48.9	47	43	87
NATA* Diesel PM (µg/m^3)	0.308	0.468	32	0.479	<50th	0.479	<50th
NATA* Air Toxics Cancer Risk (risk per MM)	46	36	94	35	90-95th	32	95-100th
NATA* Respiratory Hazard Index	0.76	0.55	95	0.53	95-100th	0.44	95-100th
Traffic Proximity and Volume (daily traffic count/distance to road)	1000	2000	51	1700	58	750	81
Lead Paint Indicator (% pre-1960s housing)	0.15	0.29	44	0.24	52	0.28	46
Superfund Proximity (site count/km distance)	0.054	0.18	33	0.15	38	0.13	45
RMP Proximity (facility count/km distance)	0.41	1.1	40	0.99	46	0.74	55
Hazardous Waste Proximity (facility count/km distance)	0.39	3.4	23	2.9	30	4	47
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.0033	17	73	31	73	14	73
Demographic Indicators							
Demographic Index	33%	48%	29	47%	31	36%	55
Minority Population	24%	62%	9	59%	12	39%	42
Low Income Population	43%	34%	67	34%	67	33%	70
Linguistically Isolated Population	1%	9%	18	8%	22	4%	48
Population with Less Than High School Education	13%	18%	48	17%	51	13%	61
Population under Age 5	7%	6%	57	6%	57	6%	60
Population over Age 64	16%	13%	73	14%	71	15%	64

*The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

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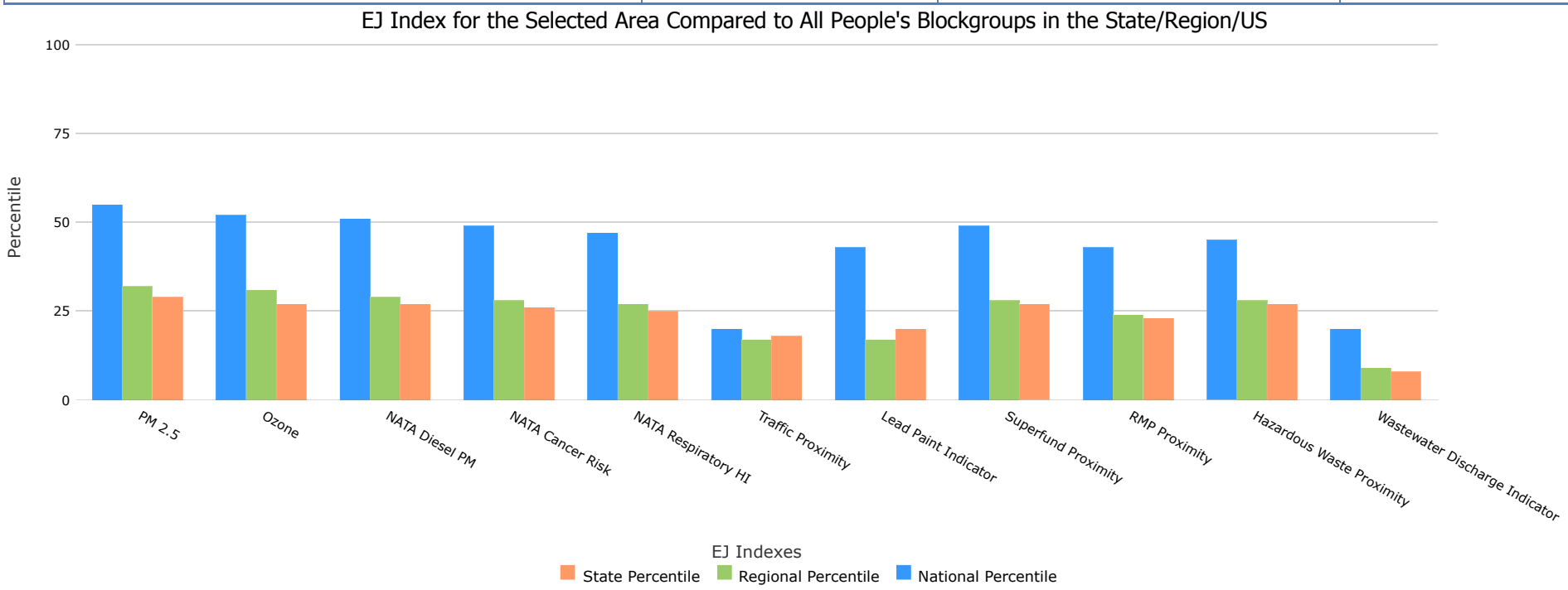
Save as PDF

EJSCREEN Report (Version 2019)

0.12 miles Ring Centered at 40.574685,-122.348533
CALIFORNIA, EPA Region 9
Approximate Population: 281
Input Area (sq. miles): 0.05

Selected Variables	Percentile in State	Percentile in EPA Region	Percentile in USA
EJ Indexes			
EJ Index for Particulate Matter (PM 2.5)	29	32	55
EJ Index for Ozone	27	31	52
EJ Index for NATA* Diesel PM	27	29	51
EJ Index for NATA* Air Toxics Cancer Risk	26	28	49
EJ Index for NATA* Respiratory Hazard Index	25	27	47
EJ Index for Traffic Proximity and Volume	18	17	20
EJ Index for Lead Paint Indicator	20	17	43
EJ Index for Superfund Proximity	27	28	49
EJ Index for RMP Proximity	23	24	43
EJ Index for Hazardous Waste Proximity	27	28	45
EJ Index for Wastewater Discharge Indicator	8	9	20



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

April 20, 2020

Project 1

Search Result (point)

1:4,514

0 0.04 0.08 0.17 mi

0 0.06 0.12 0.24 km

Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Sites reporting to EPA

Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

Selected Variables	Value	State		EPA Region		USA	
		Avg.	%tile	Avg.	%tile	Avg.	%tile
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m^3)	5.88	9.78	3	9.21	6	8.3	6
Ozone (ppb)	48.7	48.2	53	48.9	47	43	87
NATA* Diesel PM (µg/m^3)	0.31	0.468	32	0.479	<50th	0.479	<50th
NATA* Air Toxics Cancer Risk (risk per MM)	46	36	94	35	90-95th	32	95-100th
NATA* Respiratory Hazard Index	0.76	0.55	95	0.53	95-100th	0.44	95-100th
Traffic Proximity and Volume (daily traffic count/distance to road)	1200	2000	55	1700	62	750	84
Lead Paint Indicator (% pre-1960s housing)	0.16	0.29	45	0.24	53	0.28	46
Superfund Proximity (site count/km distance)	0.054	0.18	33	0.15	39	0.13	45
RMP Proximity (facility count/km distance)	0.45	1.1	43	0.99	48	0.74	57
Hazardous Waste Proximity (facility count/km distance)	0.39	3.4	24	2.9	31	4	47
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.0029	17	72	31	73	14	72
Demographic Indicators							
Demographic Index	33%	48%	28	47%	30	36%	54
Minority Population	28%	62%	14	59%	16	39%	48
Low Income Population	37%	34%	60	34%	60	33%	62
Linguistically Isolated Population	0%	9%	16	8%	20	4%	45
Population with Less Than High School Education	13%	18%	48	17%	51	13%	61
Population under Age 5	3%	6%	21	6%	22	6%	24
Population over Age 64	25%	13%	91	14%	90	15%	89

*The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

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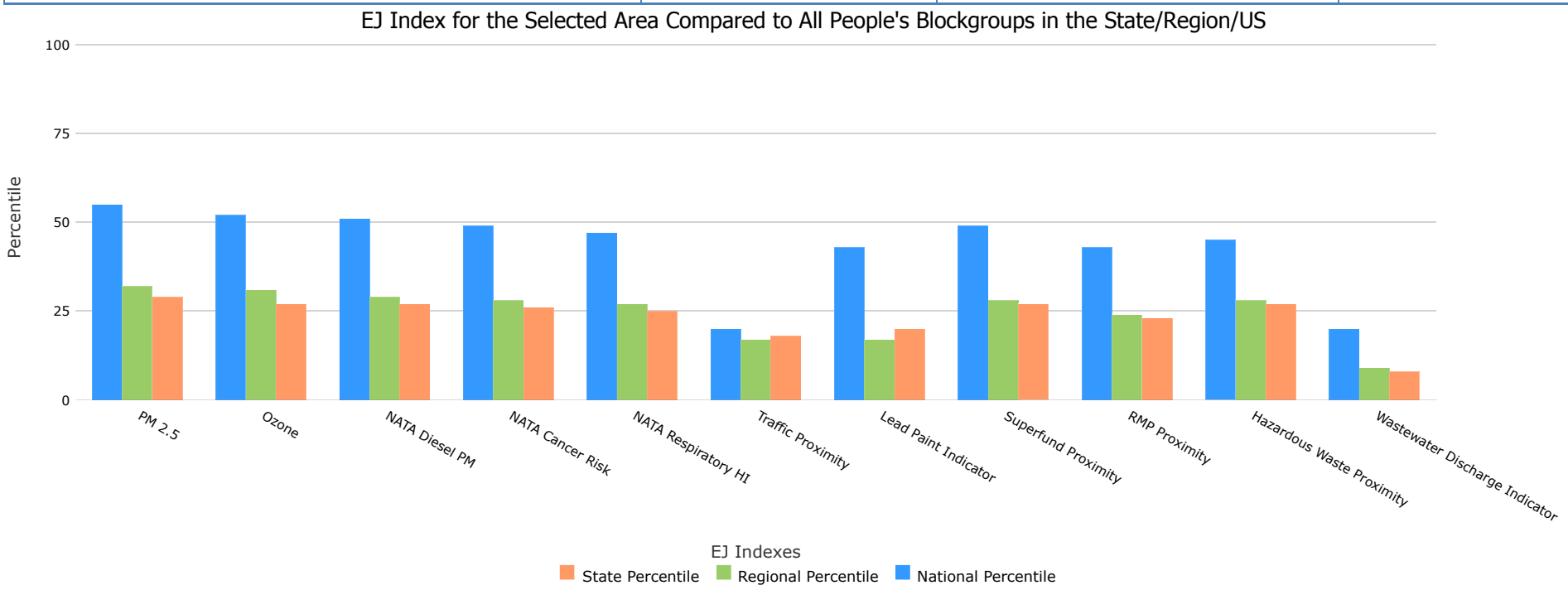
Save as PDF

EJSCREEN Report (Version 2019)

0.25 miles Ring Centered at 40.574685,-122.348533
CALIFORNIA, EPA Region 9
Approximate Population: 298
Input Area (sq. miles): 0.20

Selected Variables	Percentile in State	Percentile in EPA Region	Percentile in USA
EJ Indexes			
EJ Index for Particulate Matter (PM 2.5)	29	32	55
EJ Index for Ozone	27	31	52
EJ Index for NATA* Diesel PM	27	29	51
EJ Index for NATA* Air Toxics Cancer Risk	26	28	49
EJ Index for NATA* Respiratory Hazard Index	25	27	47
EJ Index for Traffic Proximity and Volume	18	17	20
EJ Index for Lead Paint Indicator	20	17	43
EJ Index for Superfund Proximity	27	28	49
EJ Index for RMP Proximity	23	24	43
EJ Index for Hazardous Waste Proximity	27	28	45
EJ Index for Wastewater Discharge Indicator	8	9	20



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

April 20, 2020

Project 1

Search Result (point)

1:4,514

0 0.04 0.08 0.17 mi

0 0.06 0.12 0.24 km

Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Sites reporting to EPA

Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

Selected Variables	Value	State		EPA Region		USA	
		Avg.	%tile	Avg.	%tile	Avg.	%tile
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m^3)	5.88	9.78	3	9.21	6	8.3	6
Ozone (ppb)	48.7	48.2	53	48.9	47	43	87
NATA* Diesel PM (µg/m^3)	0.31	0.468	32	0.479	<50th	0.479	<50th
NATA* Air Toxics Cancer Risk (risk per MM)	46	36	94	35	90-95th	32	95-100th
NATA* Respiratory Hazard Index	0.76	0.55	95	0.53	95-100th	0.44	95-100th
Traffic Proximity and Volume (daily traffic count/distance to road)	1200	2000	55	1700	62	750	84
Lead Paint Indicator (% pre-1960s housing)	0.16	0.29	45	0.24	53	0.28	46
Superfund Proximity (site count/km distance)	0.054	0.18	33	0.15	39	0.13	45
RMP Proximity (facility count/km distance)	0.45	1.1	43	0.99	48	0.74	57
Hazardous Waste Proximity (facility count/km distance)	0.39	3.4	24	2.9	31	4	47
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.0029	17	72	31	73	14	72
Demographic Indicators							
Demographic Index	33%	48%	28	47%	30	36%	54
Minority Population	28%	62%	14	59%	16	39%	48
Low Income Population	37%	34%	60	34%	60	33%	62
Linguistically Isolated Population	0%	9%	16	8%	20	4%	45
Population with Less Than High School Education	13%	18%	48	17%	51	13%	61
Population under Age 5	3%	6%	21	6%	22	6%	24
Population over Age 64	25%	13%	91	14%	90	15%	89

*The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

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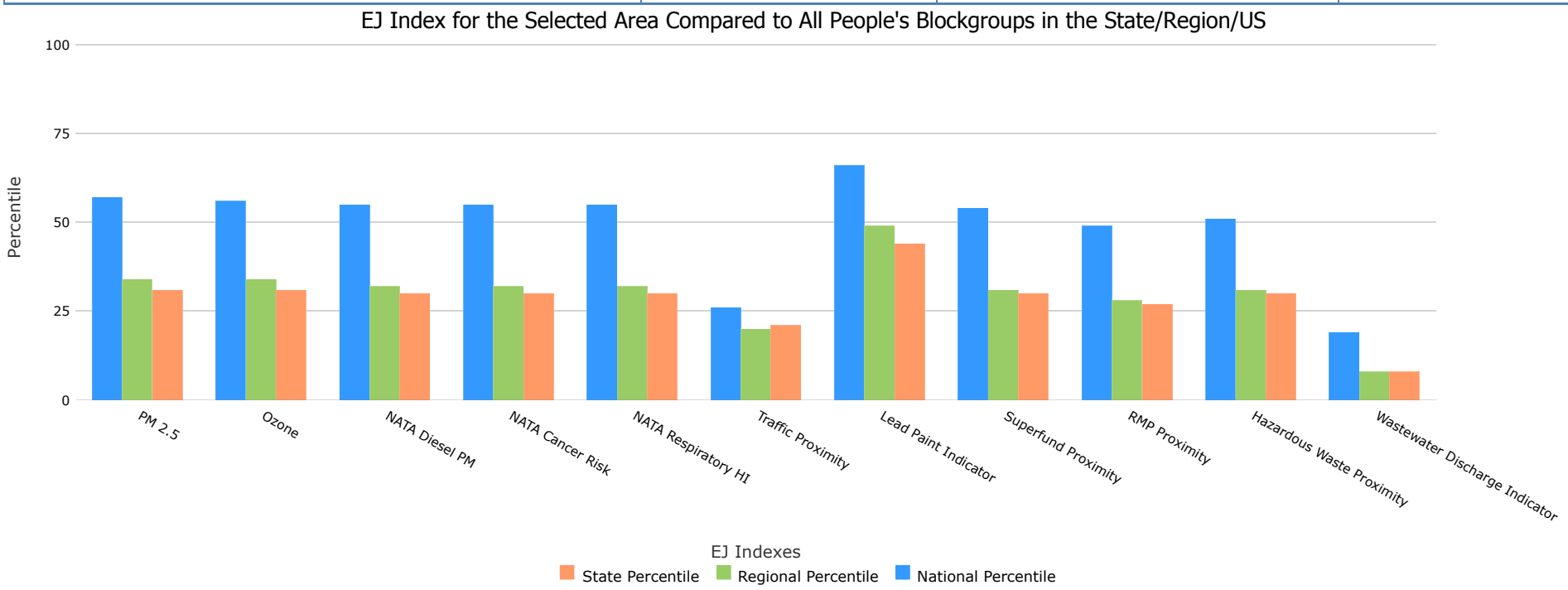
Save as PDF

EJSCREEN Report (Version 2019)

0.75 miles Ring Centered at 40.574685,-122.348533
CALIFORNIA, EPA Region 9
Approximate Population: 5,674
Input Area (sq. miles): 1.77

Selected Variables	Percentile in State	Percentile in EPA Region	Percentile in USA
EJ Indexes			
EJ Index for Particulate Matter (PM 2.5)	31	34	57
EJ Index for Ozone	31	34	56
EJ Index for NATA* Diesel PM	30	32	55
EJ Index for NATA* Air Toxics Cancer Risk	30	32	55
EJ Index for NATA* Respiratory Hazard Index	30	32	55
EJ Index for Traffic Proximity and Volume	21	20	26
EJ Index for Lead Paint Indicator	44	49	66
EJ Index for Superfund Proximity	30	31	54
EJ Index for RMP Proximity	27	28	49
EJ Index for Hazardous Waste Proximity	30	31	51
EJ Index for Wastewater Discharge Indicator	8	8	19



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April 20, 2020

Project 1

Search Result (point)

1:4,514

0 0.04 0.08 0.17 mi

0 0.06 0.12 0.24 km

Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Sites reporting to EPA

Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

Selected Variables	Value	State		EPA Region		USA	
		Avg.	%tile	Avg.	%tile	Avg.	%tile
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m^3)	5.89	9.78	3	9.21	6	8.3	6
Ozone (ppb)	48.7	48.2	53	48.9	47	43	87
NATA* Diesel PM (µg/m^3)	0.305	0.468	31	0.479	<50th	0.479	<50th
NATA* Air Toxics Cancer Risk (risk per MM)	46	36	94	35	90-95th	32	95-100th
NATA* Respiratory Hazard Index	0.75	0.55	95	0.53	95-100th	0.44	95-100th
Traffic Proximity and Volume (daily traffic count/distance to road)	870	2000	47	1700	55	750	79
Lead Paint Indicator (% pre-1960s housing)	0.19	0.29	48	0.24	56	0.28	50
Superfund Proximity (site count/km distance)	0.053	0.18	32	0.15	38	0.13	44
RMP Proximity (facility count/km distance)	0.37	1.1	38	0.99	44	0.74	53
Hazardous Waste Proximity (facility count/km distance)	0.39	3.4	23	2.9	30	4	47
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.0046	17	74	31	74	14	75
Demographic Indicators							
Demographic Index	37%	48%	34	47%	36	36%	59
Minority Population	26%	62%	11	59%	14	39%	45
Low Income Population	48%	34%	73	34%	73	33%	76
Linguistically Isolated Population	1%	9%	18	8%	23	4%	49
Population with Less Than High School Education	15%	18%	53	17%	56	13%	67
Population under Age 5	7%	6%	61	6%	61	6%	64
Population over Age 64	15%	13%	66	14%	64	15%	55

*The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

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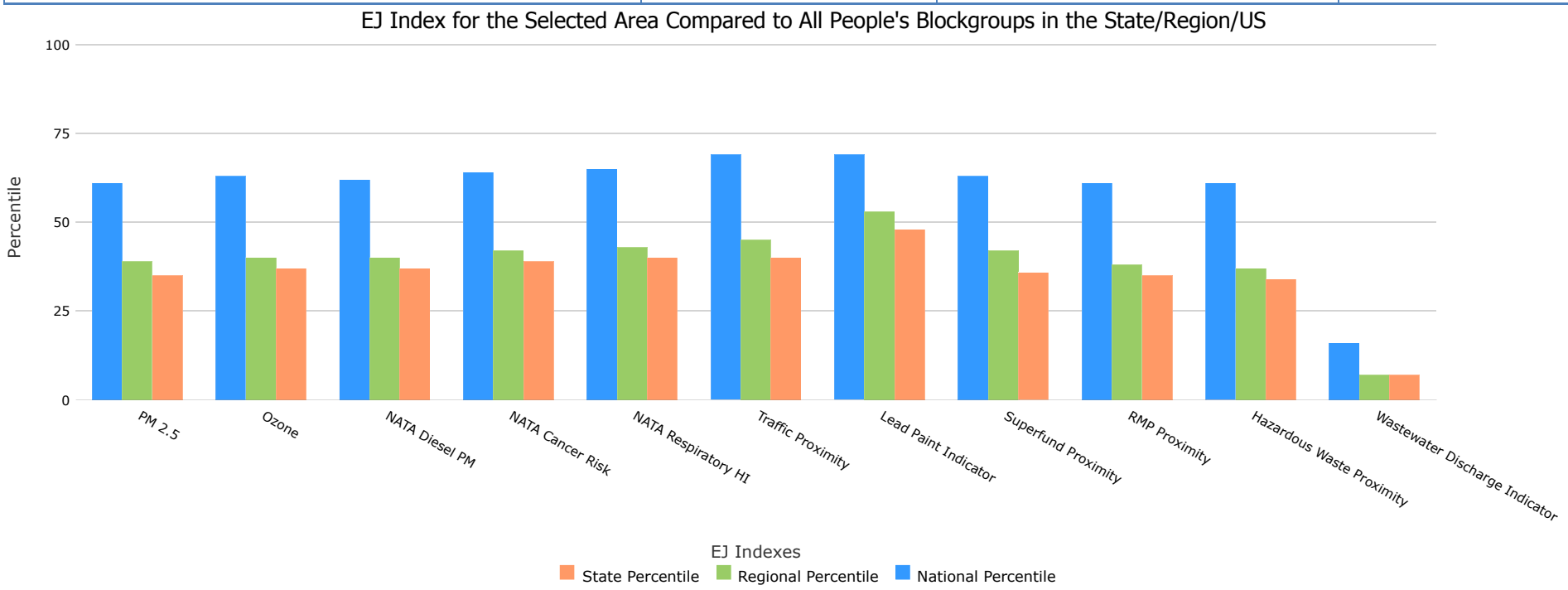
Save as PDF

EJSCREEN Report (Version 2019)

1 miles Ring Centered at 40.574685,-122.348533
CALIFORNIA, EPA Region 9
Approximate Population: 9,245
Input Area (sq. miles): 3.14

Selected Variables	Percentile in State	Percentile in EPA Region	Percentile in USA
EJ Indexes			
EJ Index for Particulate Matter (PM 2.5)	35	39	61
EJ Index for Ozone	37	40	63
EJ Index for NATA* Diesel PM	37	40	62
EJ Index for NATA* Air Toxics Cancer Risk	39	42	64
EJ Index for NATA* Respiratory Hazard Index	40	43	65
EJ Index for Traffic Proximity and Volume	40	45	69
EJ Index for Lead Paint Indicator	48	53	69
EJ Index for Superfund Proximity	36	42	63
EJ Index for RMP Proximity	35	38	61
EJ Index for Hazardous Waste Proximity	34	37	61
EJ Index for Wastewater Discharge Indicator	7	7	16



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April 20, 2020

Project 1

Search Result (point)

1:4,514

0 0.04 0.08 0.17 mi

0 0.06 0.12 0.24 km

Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Sites reporting to EPA

Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

Selected Variables	Value	State		EPA Region		USA	
		Avg.	%tile	Avg.	%tile	Avg.	%tile
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m^3)	5.9	9.78	3	9.21	6	8.3	6
Ozone (ppb)	48.7	48.2	53	48.9	47	43	87
NATA* Diesel PM (µg/m^3)	0.297	0.468	30	0.479	<50th	0.479	<50th
NATA* Air Toxics Cancer Risk (risk per MM)	46	36	94	35	90-95th	32	95-100th
NATA* Respiratory Hazard Index	0.76	0.55	95	0.53	95-100th	0.44	95-100th
Traffic Proximity and Volume (daily traffic count/distance to road)	890	2000	47	1700	56	750	79
Lead Paint Indicator (% pre-1960s housing)	0.18	0.29	47	0.24	55	0.28	49
Superfund Proximity (site count/km distance)	0.053	0.18	32	0.15	38	0.13	44
RMP Proximity (facility count/km distance)	0.35	1.1	37	0.99	43	0.74	52
Hazardous Waste Proximity (facility count/km distance)	0.38	3.4	23	2.9	30	4	47
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.01	17	76	31	76	14	79
Demographic Indicators							
Demographic Index	40%	48%	39	47%	41	36%	63
Minority Population	27%	62%	12	59%	15	39%	46
Low Income Population	53%	34%	78	34%	78	33%	81
Linguistically Isolated Population	1%	9%	18	8%	23	4%	49
Population with Less Than High School Education	14%	18%	51	17%	54	13%	65
Population under Age 5	7%	6%	58	6%	58	6%	62
Population over Age 64	14%	13%	63	14%	62	15%	53

*The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

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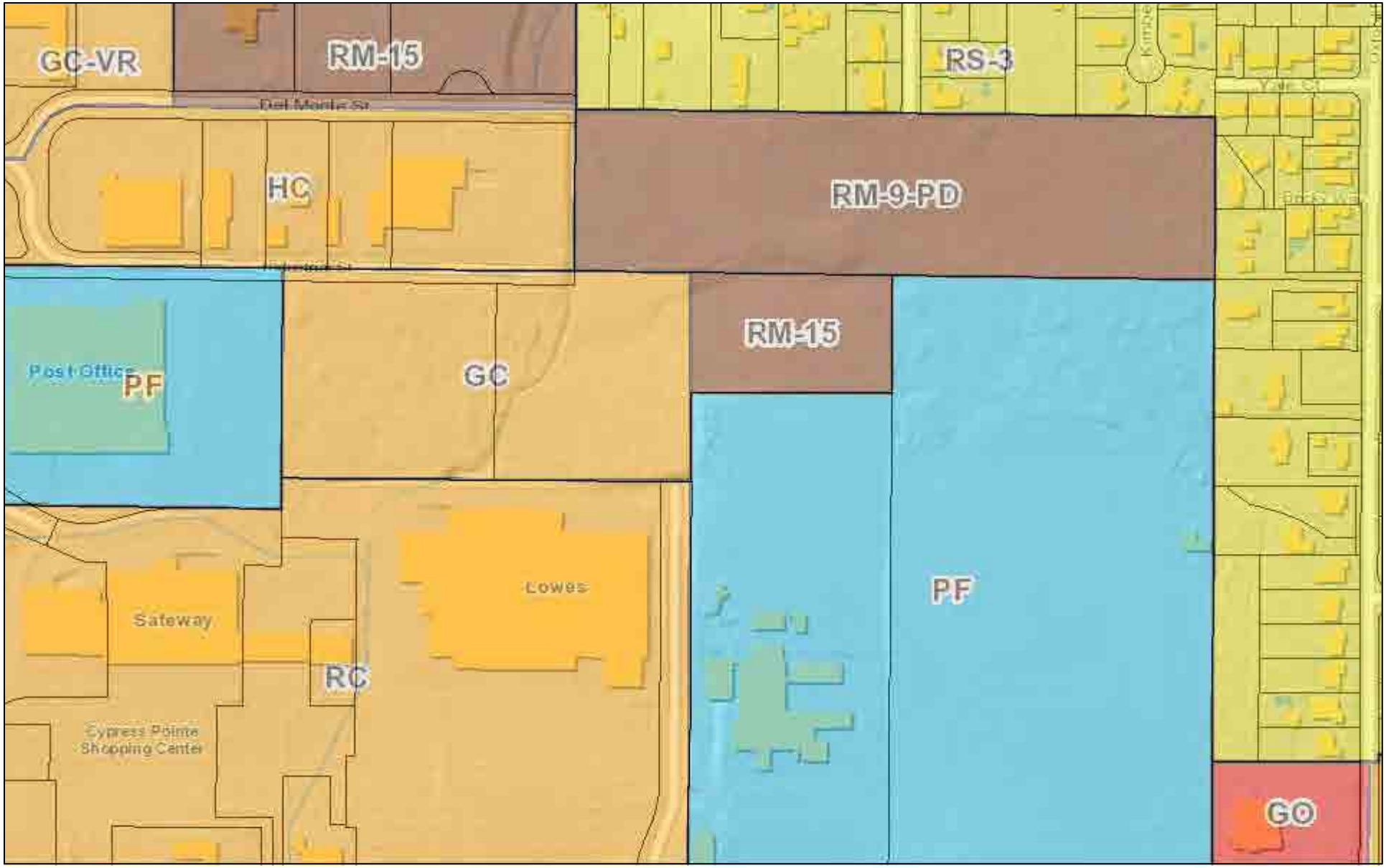
ATTACHMENT N - LAND DEVELOPMENT

GIS Web Map



April 20, 2020

1:4,514

0 0.0375 0.075 0.15 mi

0 0.05 0.1 0.2 km

Specific Plan Boundary

Zone District

Single Family

Rural Lands District

Multiple Family

Mixed Use

Specific Plan

Office

Commercial

Industry

Open Space

Public

Redding GIS
National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA,

Redding Public Map Viewer
City of Redding GIS

A Codification of the General Ordinances of
Redding, California

Beginning with Supp. No. 14,
Supplemented by Municipal Code Corporation

Municipal Code Corporation | P.O. Box 2235 Tallahassee, FL 32316
info@municode.com | 800.262.2633
www.municode.com

PREFACE

The Redding, California Municipal Code, originally published by Book Publishing Company, has been kept current by regular supplementation by Municipal Code Corporation, its successor in interest.

During original codification, the ordinances were compiled, edited and indexed by the editorial staff of Book Publishing Company under the direction of Earl Murphy, city attorney.

The code is organized by subject matter under an expandable three-factor decimal numbering system which is designed to facilitate supplementation without disturbing the numbering of existing provisions. Each section number designates, in sequence, the numbers of the Title, chapter, and section. Thus, Section 2.12.040 is Section .040, located in Chapter 2.12 of Title 2. In most instances, sections are numbered by tens (.010, .020, .030, etc.), leaving nine vacant positions between original sections to accommodate future provisions. Similarly, chapters and titles are numbered to provide for internal expansion.

In parentheses following each section is a legislative history identifying the specific sources for the provisions of that section. This legislative history is complemented by an ordinance disposition table, following the text of the Code, listing by number all ordinances, their subjects, and where they appear in the codification; and beginning with Supplement No. 14, legislation can be tracked using the "Code Comparative Table and Disposition List."

A subject-matter index, with complete cross-referencing, locates specific code provisions by individual section numbers.

[illegible]ts.

A. Letter of Completion. When it is found that the work authorized by the grading permit, including the installation of all drainage structures, planting, and recommendations by the soils engineer and engineering geologist and removal of debris deposited on adjoining properties or public ways, has been satisfactorily completed in accordance with the requirements of this chapter, a letter of completion covering such work shall be sent to the permittee by the city engineer. A copy shall be sent to the building official.

B. Final Reports. Unless otherwise specifically waived in writing by the city engineer, upon completion of the work and before final acceptance of the work, the permittee shall submit to the city engineer the following reports and information as applicable:

1. An as-graded grading plan prepared by the civil engineer shall include the original ground surface elevations or contours; as-graded ground surface elevations; the elevation of four pad corners of each building pad; as-graded lot drainage patterns; locations and elevations of subsurface drainage facilities, which shall include: grate elevations, curb flow line elevations and drainage pipe invert elevations at inlets, storm-drainage manholes and outlets; locations and elevations on public sewer-line stubs, public waterline stubs, and storm-drain stubs and outfalls. The civil engineer shall provide a stamped, written declaration on the as-graded grading plan that the work was done in accordance with the final approved grading plan and this chapter. Any modifications to the approved grading plan by the as-graded grading plan shall be approved by the city engineer prior to its submittal;
2. A soil grading report prepared by the soils engineer, including locations and elevations of field density tests, summaries of field and laboratory tests, and other substantiating data and comments on any changes made during grading and their effect on the recommendations made in the soil engineering investigation report. The soils engineer shall also provide information as to location and nature of tests, statement related to the expansive nature of soil and rock material, limits of compacted fill shown on the as-graded plan, and adequacy of the site for the intended use;
3. A geologic grading report prepared by the engineering geologist, if an engineering geological report was required by the city engineer in accordance with Section 16.12.060(A)(5), including a final description of the geology of the site, including any new information disclosed during the grading and the effect of same on recommendations incorporated in the approved grading plan. The engineering geologist shall provide a written declaration as to the adequacy of the site for the intended use as affected by geologic factors. Where necessary, a revised geologic map and cross sections and any recommendations regarding special building restrictions or foundation setbacks shall be included.

A. Project Review Procedures.

1. Business License. A zoning clearance is not required for the issuance of a business license. However, obtaining a zoning clearance will conclusively establish that the proposed activity complies with the use regulations of this code and thus provides certainty to potential business owners/operators. For those that desire to obtain a zoning clearance, the director shall provide a form that indicates whether: (1) the proposed use is in conformance with the provisions of this chapter; (2) the proposed use is not allowed; or (3) other permits, such as a use permit or site development permit, must be obtained.

2. Building or Other Permit. Prior to issuance of a building or other permit, the director shall determine whether the proposed building, use, or activity is in compliance with all provisions of this chapter; whether a use permit or site development permit is required; or if additional information is needed to make the determination. The director shall also determine whether adequate public facilities exist at the site location and whether additional right-of-way or utility easements will be required consistent with the Redding Municipal Code. Applicants for a building permit shall be notified of the determination within fourteen days of submitting a complete building or other application.

B. Time Limits—Expiration. The zoning clearance shall be valid for the same period that the business license is in effect or the companion building or other required permit is in force.

(Ord. 2343 § 2 (part), 2005: Ord. 2310 § 3 (part), 2003; Ord. 2301 § 3 (Att. A (part)), 2002)

18.40.100 - Noise standards.

A. Purpose. The purpose of this chapter is to:

1. Control unnecessary, excessive and annoying noise;
2. Protect the public health, safety and welfare;
3. Declare that creating, maintaining or causing noise in excess of the limits prescribed by this chapter is a public nuisance and shall be punishable as such.

B. General Noise Regulations. Notwithstanding any other provision of this chapter and in addition thereto, it is unlawful for any person to willfully or negligently make or continue or cause to be made or continued, any loud, unnecessary or unusual noise which disturbs the peace and quiet of any neighborhood or which causes any discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area. Noncommercial public speaking and public assembly activities conducted on any public space or public right-of-way shall be exempt from the operation of this section.

C. Factors of Determination. The factors which will be considered in determining whether a violation of the provisions of this chapter exists shall include, but not be limited to, the following:

1. The sound level of the alleged objectionable noise;
2. The sound level of the ambient noise;
3. The nature and zoning of the area within which the noise emanates;
4. The time of day or night the noise occurs;
5. Whether the noise is continuous, recurrent or intermittent.

D. Noise Measurement. Noise shall be measured utilizing the hourly energy-equivalent noise level (L_{eq}).

E. Noise Limits. The provisions of this section address noise intrusions over and above the noise normally associated with a given location (intrusions over the ambient level). The ambient noise varies throughout the community, depending upon proximity to streets and the type of area land uses.

The maximum sound levels shall be determined as follows:

1. Exterior Noise Limits.

a. The noise standards for the various categories of land use as set forth in Schedule 18.40.100-A, unless otherwise specifically indicated, shall apply to all such property within a designated zone. No person shall operate or cause to be operated, any source of sound at any location within the incorporated city or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such

person which causes the noise level when measured on any other property, either incorporated or unincorporated, to exceed the noise standard for that land use specified in Schedule 18.40.100-A.

b. If the measured ambient level is above that permissible, the allowable noise exposure standard shall be increased to reflect the actual ambient noise level.

Schedule 18.40.100-A describes the noise standard for emanations from any source as measured on adjacent properties:

Schedule 18.40.100-A: Exterior Noise Standards

Receiving Zone	Time Period	Noise Level (L eq) dB
Residential	7 a.m. – 10 p.m.	45
	10 p.m. – 7 a.m.	35
Commercial/Office	7 a.m. – 10 p.m.	55
	10 p.m. – 7 a.m.	50
Industrial	7 a.m. – 10 p.m.	N/A[1]
	10 p.m. – 7 a.m.	N/A[1]

[1] Industrial noise shall be measured at the property line of any nonindustrial district.

F. Prohibited Acts. The following acts are hereby prohibited:

1. Loading and Unloading. Loading, unloading, opening, closing or other handling of boxes, crates, containers, building materials or similar objects between the hours of ten p.m. and seven a.m. in such a manner as to cause a noise disturbance across a residential real property line;

2. Construction or Demolition.

a. Operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work in or within five hundred feet of a residential district such that the sound creates a noise disturbance across a property line during the following times:

i. May 15 through September 15: Between the weekday hours of seven p.m.

and six a.m. and weekends and holidays between eight p.m. and nine a.m.

ii. September 16 through May 14: Between the weekday hours of seven p.m. and seven a.m. and weekends and holidays between eight p.m. and nine a.m.

3. Domestic Power Tools and Equipment. Operation or permitting the operation, of any mechanically powered saw, lawn or garden tool or similar outdoor tool between ten p.m. and seven a.m. on weekdays (or nine p.m. and eight a.m. on weekends and legal holidays) so as to create a noise disturbance across a residential or commercial real property line.

G. Emergency Exemptions. The provisions of this chapter shall not apply to:

1. The emission of sound for the purpose of alerting persons to the existence of an emergency;
2. The emission of sound in the performance of emergency work.

H. Miscellaneous Exemptions.

1. Warning Devices. Warning devices necessary for the protection of the public safety, such as police, fire and ambulance sirens, shall be exempted from the provisions of this chapter.
2. Outdoor Activities. The provisions of this chapter shall not apply to occasional outdoor gatherings, public dances, shows, and sporting and entertainment events provided that such events are conducted pursuant to a permit or license issued by the city relative to the staging of such events.
3. Churches and Other Similar Organizations. Any churches or other similar organization which use unamplified bells, chimes or other similar devices are exempt from the provisions of this chapter so long as the church or other similar organizations play such between the time period of seven a.m. and ten p.m. and the playing period does not exceed thirty minutes in any one hour.
4. Municipal Solid Waste Collection. Collection of solid waste, vegetative waste and recyclable materials by the city of Redding shall be exempt from the provisions of this chapter.
5. Public Works Construction Projects. Street, utility and similar construction projects undertaken by or under contract to the city of Redding, county of Shasta or state of California or a public utility regulated by the California Public Utilities Commission.
6. Public Utility Facilities. Facilities including, but not limited to, sixty-cycle electric power transformers and related equipment, sewer lift stations, municipal wells and pumping stations.

I. Federal and State Preempted Activities. Any other activity shall be exempt from the provisions of this chapter to the extent regulation thereof has been preempted by state or federal laws.

Representative Slope—Shasta County Area, California

Map Scale: 1:841 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 10 20 40 60

Feet: 0 40 80 160 240

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

0 - 5

5 - 15

15 - 45

45 - 60

60 - 100

Not rated or not available

Soil Rating Lines

0 - 5

5 - 15

15 - 45

45 - 60

60 - 100

Not rated or not available

Soil Rating Points

0 - 5

5 - 15

15 - 45

45 - 60

60 - 100

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Shasta County Area, California
Survey Area Data: Version 14, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 26, 2015—Jun 26, 2015

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Representative Slope

Map unit symbol	Map unit name	Rating (percent)	Acres in AOI	Percent of AOI
CfA	Churn gravelly loam, deep, 0 to 3 percent slopes	2.0	2.9	83.5%
RcB	Red Bluff gravelly loam, moderately deep, 3 to 8 percent slopes	6.0	0.6	16.5%
Totals for Area of Interest			**3.5**	**100.0%**

Description

Slope gradient is the difference in elevation between two points, expressed as a percentage of the distance between those points.

The slope gradient is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: percent

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Interpret Nulls as Zero: No

Map Scale: 1:841 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 10 20 40 60

Feet: 0 40 80 160 240

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Shasta County Area, California
Survey Area Data: Version 14, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

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Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
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RcB	Red Bluff gravelly loam, moderately deep, 3 to 8 percent slopes	0.6	16.5%
Totals for Area of Interest		**3.5**	**100.0%**

PUBLIC FACILITIES AND SERVICES ELEMENT

INTRODUCTION

PURPOSE AND CONTENT

Capital improvements are perhaps the most important investment a City can make in itself. They are also the most expensive. Therefore, it is essential that decision-makers and the public have access to information regarding anticipated facility needs and desired service level standards to ensure that necessary improvements are constructed at the appropriate time. This element contains facility descriptions, service level standards, and goals and policies designed to assist the City Council, advisory bodies and the city management team with decisions related to staffing and the construction/improvement of public facilities.
The location, size and timing of needed improvements is directly related to the land use patterns identified in the Community Development and Design Element and service level standards identified within the Public Facilities and Services Element. Significant changes in land use types, locations or intensities from those identified within the Community Development and Design Element can have a direct impact on public facility and services planning. When changes to the Community Development and Design Element and/or General Plan Diagram are considered, the impacts on planned public facilities should also be assessed and considered as part of the land use change decision-making process.

The biggest challenge Redding faces in providing public facilities and services is developing a long-term funding strategy to pay for those items without creating an undue burden on itself, developers, City residents and businesses. The second half of this element includes a discussion of funding options for identified facilities and services and policy guidelines for long-term funding strategies.

Background data and information for this element is contained within Chapters 5 and 7 of the City of Redding *General Plan Background Report*, although some of that information has been updated to reflect more current conditions. This report describes the full range of facilities and services provided to the citizens of Redding by the City and other agencies. That information is not repeated in this element.

Specific topics addressed in the Policy Document include:

- Law Enforcement
- Fire Protection
- Municipal Water Systems
- Sanitary Sewer Collection and Treatment
- Electric Service
- Solid Waste Collection and Disposal
- Storm Drain Facilities
- Corporation Yard
- Streets
- Bridges
- Transit Facilities
- Airport Facilities
- Parks
- Large and Small Community Centers
- Convention Facilities
- Downtown Improvements
- Libraries
- Funding

Discussion of these topics and the issues related to providing public facilities and services as a whole has been grouped within the following Sections:

- Establishing and Maintaining Service Levels

- Public Safety (Law Enforcement and Fire Protection)

- Utility Infrastructure and Services (Water, Sewer, Electric, Solid Waste, Stormwater, and Corporation Yard)

- Transportation Facilities (Streets, Bridges, Transit Facilities, and Airports
- Recreational and Cultural Facilities (Parks, Large and Small Community Centers, Downtown Improvements, Convention Center, and Libraries)
- Funding

AUTHORITY

Pursuant to Section 65303 of the Government Code, a General Plan may include optional elements such as a Public Facilities Element, as long as the element relates to the physical development of the City. These elements have the same legal status and consistency requirements as mandatory elements.

GOALS AND POLICIES

ESTABLISHING AND MAINTAINING SERVICE LEVELS

The types and levels of public facilities and services that are provided in a community often affects not only an individual's thoughts about the quality of life that the community offers, but can have a direct impact on economic development efforts. Cities which maintain higher levels of services and facilities typically foster a good deal of civic pride among their residents, and leave a positive impression with those who visit. As Redding continues to evolve into a regional urban center, it is essential that existing service and facility standards be maintained and/or improved. Strategies should also be implemented which ensure that desired facilities and services are provided in the most efficient and cost effective manner possible. The facility and service thresholds that follow are intended to guide planning and funding decisions, but not to be proscriptive in nature.

GOAL PF1
ENSURE THAT ADEQUATE PUBLIC SERVICES AND FACILITIES ARE AVAILABLE TO SUPPORT DEVELOPMENT IN AN EFFICIENT AND ORDERLY MANNER.

Policies to achieve this goal are to:

PF1A. Require that all new development, including major modifications to existing development, construct necessary on-site infrastructure to serve the project in accordance with City standards.

PF1B. Require that all new development, including major modifications to existing development, construct or provide a fair share contribution toward the construction of any off-site improvements necessary to offset project impacts and/or support the project.

PF1C. When reviewing applications for land use designation changes (i.e. zone change, General Plan Amendment, Specific Plan), conduct a thorough analysis of the impacts of the proposed changes on all aspects of the City's infrastructure system, and require mitigation as appropriate.

PF1D. Require that the provision of streets, sewer, electric, water, drainage, and other needed infrastructure be coordinated in a logical manner between adjacent developments so as to reduce design, construction and maintenance costs.

PF1E. Require that infrastructure be designed and constructed to meet ultimate capacity needs, pursuant to a master plan, so as to avoid the need for costly retrofitting.

PF1F. Utilize reimbursement agreements, where appropriate, when upgraded or oversized facilities are installed by an individual developer and the cost of the facilities exceeds the development's proportional share of responsibility.

PF1G. Direct growth toward areas which already have infrastructure capacity available by providing incentives for quality infill development.

PF1H. Encourage clustering of development to maximize the use and efficiency of infrastructure facilities.

PF1I. Regularly update and adopt the City's Capital Improvement Program (CIP) to prioritize funding for public works projects in accordance with the General Plan.

PF1J. Recognize the considerable public investment made in existing utility and street infrastructure by ensuring that funding for maintaining its integrity, reliability, and service levels is on par with investment in new facilities.

PUBLIC SAFETY

Providing public safety services is an important function of any municipality. Safety services are typically divided into two broad categories: law enforcement and fire protection.

LAW ENFORCEMENT

Law enforcement in the Planning Area is provided by two agencies, the Redding Police Department and the Shasta County Sheriff's Department. The Redding Police Department provides law enforcement services within the City limits. The Shasta County Sheriff's Department is responsible for services within the unincorporated areas.

The Redding Police Department operates primarily from the main station complex located at 1313 California Street and a satellite investigations office in the Downtown Mall. The department is organized into three major divisions: Administrative Services, Field Operations and Investigations.

In 1999, the City employed 107 sworn officers, giving it a ratio of 1.36 officers per 1,000 residents. This figure is considered average and the minimum amount necessary to sustain current levels of service. In order to improve efficiencies, consolidation of all divisions in one location, which will allow for future increases in staffing, is desirable. However, even with the conversion of the existing Council Chambers at the main station complex and extensive remodeling, a new facility is needed today, but funds are not available for its construction.

Other issues for consideration include the need for additional Field Operations stations as development within the Planning Area continues toward buildout. Collocation of additional police Field Operations facilities with City Fire Stations may provide opportunities to maximize facility investment and efficiencies. Other options for increasing the presence and accessibility of law enforcement personnel may include developing community-oriented substations in certain areas.

RESPONSE TIME

The Redding Police Department has established a geographic based "beat" system to respond to calls for service. There are currently six beats covering the City's 59 square mile area. Department personnel have expressed concerns with the size of the existing beats (particularly Beat 1—the largest geographically) in the City. Annexation of additional areas is also an ongoing concern, particularly depending on the size and location of the annexation. Significant increases in population or geographic area are likely to result in the need for additional beats and/or staffing. Otherwise, degradation of existing response times would almost certainly occur.

GOAL PF2
ENSURE A HIGH LEVEL OF POLICE PROTECTION FOR THE CITY'S RESIDENTS, BUSINESSES, AND VISITORS.

Policies to achieve this goal are to:

PF2A. Establish the following thresholds for police services:

- Maintain, at a minimum, a sworn officer to population ratio of 1.36 officers per 1,000 residents.
- Respond to 85 percent of Priority 1 calls within 5 minutes of being dispatched.

PF2B. Provide police facilities (including patrol and other vehicles, necessary equipment, and support personnel) sufficient to maintain the City's standards for law enforcement services.

PF2C. Consider the desirability of establishing police substations in certain areas.

PF2D. Consider utilizing developer impact fees to finance a portion of police facilities.

GOAL PF3
CREATE AND MAINTAIN EFFICIENT POLICE ADMINISTRATION FACILITIES.

Policies to achieve this goal are to:

PF3A. Remodel the "old" City Council Chambers to provide additional floor area in Fiscal Year (FY) 2000-2001.

PF3B. Construct a new 48,000-square-foot police administration building to consolidate services at the new Civic Center complex.

FIRE PROTECTION

Fire protection within the Planning Area is provided by three primary agencies. These include the Redding Fire Department (RFD), California Department of Forestry and Fire Protection (CDF) and the Shasta County Fire Department (SCFD). The Redding Fire Department has the primary responsibility for providing fire protection and emergency services response within the City limits. A mutual aid agreement is in effect with CDF during the wildland fire season for wildland and structure fires within a one mile fringe area surrounding the City. An automatic aid agreement with the Shasta County Fire Department is also in effect for structure fires outside of the wildland fire season. Under this agreement the Redding Fire Department responds within a one mile fringe area surrounding the City and to county islands. Shasta County Fire Department responds to a small geographic area on the east side of the City.

The Redding Fire Department has three main divisions: Administration, Operations, and Fire Prevention. It operates from seven stations and a Fire Headquarters at City Hall.

RESPONSE TIME/ISO RATING

The Redding Fire Department has a standard of a five-minute response time for all emergency calls, although a four-minute response is more desirable for life safety and property conservation. Response time is measured from the point at which the agency receives notification from the Shasta Area Communications Agency (SHASCOM), which provides a consolidated dispatch service. The Department notes annexation activity and population growth have resulted in the standard not being met in all seven districts. Average response times in 1998/1999 ranged from a low of 5.67 minutes for the response area served by Station 1 (1335 Shasta Street) to a high of 7.11 minutes for the response area served by Station 6 (4201 Oasis Road).

The City currently maintains an Insurance Services Office (ISO) rating of 3. However, the Fire Department has expressed concern over the ability to maintain this rating as areas are annexed and additional growth occurs in the existing City limits. To offset the potential for a reduction in ISO rating, additional fire stations and built in fire protection systems will be necessary as the boundaries of the City expand.

GOAL PF4
ENSURE ADEQUATE FIRE PROTECTION AND EMERGENCY MEDICAL RESPONSE FOR RESIDENTS AND BUSINESSES IN THE COMMUNITY.

Policies to achieve this goal are to:

PF4A. Establish the following thresholds for fire protection services:

- Maintain a community ISO rating of 3 or better.
- Respond to 90 percent of all calls within 5 minutes of being dispatched.

PF4B. Endeavor to maintain the minimum response time for fire calls through adequate staffing, proper distribution of fire stations and equipment, and use of automatic aid agreements.

PF4C. Construct new and possibly relocate existing fire stations as needed to maintain service thresholds.

PF4D. Utilize the following factors to determine the location and type of fire fighting equipment that is needed:

- The concentration of structures in a given area.
- The available water supply.
- The availability of automatic aid.
- The amount of area to be protected.
- The kind of fires to be encountered.
- Desired response times.

PF4E. Implement ordinances to protect life, control fire losses and fire protection costs through the use of automatic suppression systems.

UTILITY INFRASTRUCTURE AND SERVICES

Urban development requires a wide range of utility services including water, sewer, solid waste, electric, and stormwater drainage. The City has historically provided all of these services within its incorporated area except for independent water districts operated in various areas. Special districts and private utility companies provide these services within the unincorporated portions of the Redding Planning Area.

MUNICIPAL WATER SYSTEMS

As of 1999, water service within the Planning Area is provided by five different entities: The City of Redding, Bella Vista Water District, Centerville Community Services District, Shasta Community Services District and the Clear Creek Community Services District. Coordination between the City and the various districts is generally provided by "annexation agreements" which ensure that water systems and fire flows are constructed and maintained in accordance with City of Redding Standards.

The City has three primary sources of water to supply its municipal water system:

1. Surface water drawn from the Sacramento River. This source constitutes approximately 59 percent of the City's total supply.

2. Surface water drawn from Whiskeytown Lake via the Spring Creek Conduit. This source constitutes approximately 18 percent of the City's total supply.

3. Wells located in the Enterprise area provide approximately 18 percent of the City's total supply. Wells located in the Cascade system located in south central Redding provide approximately 5 percent of the City's total supply.

Options for meeting anticipated water demand associated with buildout of the General Plan include:

1. Drilling additional wells.

2. Obtaining increased surface water allotments from the U.S. Bureau of Reclamation.

3. Conservation measures.

4. Transfer agreements with other agencies.

5. Treatment and utilization of reclaimed water.

6. Development and implementation of policies which require new development to install landscape with low water requirements.

GOAL PF5
MAINTAIN AN ADEQUATE LEVEL OF SERVICE IN THE CITY'S WATER SYSTEM TO MEET EXISTING AND FUTURE NEEDS.

Policies to achieve this goal are to:

PF5A. Establish the following thresholds for water services and facilities:

- Program planned expansion activities, when demand at an existing treatment plant reaches within 10 percent plant capacity.
- Reservoir capacity should be maintained at 20 percent of maximum day demand.
- Develop additional water supplies from wells at least two years prior to a projected water deficit.

PF5B. Develop and maintain a regular program for systematically replacing deteriorated or deficient water pipes.

PF5C. Require water distribution systems to be interconnected ("looped") wherever feasible to facilitate the reliable delivery of water anywhere in the City.

PF5D. Immediately begin the process to acquire additional allocations from the U.S. Bureau of Reclamation.

PF5E. Be actively involved in surface water adjudication which could have a negative impact on the City's water rights and/or allocation.

PF5F. Periodically update the City's Master Water Plan to reflect changes to the General Plan General Plan Diagram, water use pattern changes, regulatory changes, or other circumstances.

SANITARY SEWER COLLECTION AND TREATMENT

The City of Redding is the sole provider of sanitary sewer service within the Planning Area. However, current policy dictates that except under extraordinary circumstances, sewer service will not be extended unless properties are first annexed to the City. The Planning Area is divided into two separate service areas known as the Clear Creek Sewer Service Area and the Stillwater Sewer Service Area.

As of 1999, there were 34,020 HE's within the system. This is 37 percent of the 92,045 HE's estimated for ultimate development of the service area. With proposed future expansions, and correction of current inflow and infiltration difficulties, the two treatment facilities will be able to accommodate the forecasted growth.

GOAL PF6
MAINTAIN AN ADEQUATE LEVEL OF SERVICE IN THE CITY'S SEWAGE COLLECTION AND TREATMENT SYSTEM TO MEET EXISTING AND FUTURE NEEDS.

Policies to achieve this goal are to:

PF6A. Establish the following thresholds for sewer facilities:

- Program planned expansion activities when a trunk line, interceptor line, or lift station reaches 75 percent of capacity.
- Program planned expansion activities, when an existing wastewater treatment plant reaches 75 percent capacity based on dry weather flows on an ongoing basis.

PF6B. Monitor operation of the sewage collection and treatment system to determine when upgrading or expansion of the system is necessary to serve development demands.

PF6C. Develop and implement a regular program for replacing and upgrading deteriorated and undersized sewer lines to reduce inflow and infiltration into the system.

PF6D. Encourage the land application of treated wastewater biosolids and other similar activities consistent with standard industry practices and permitting by the California Regional Water Quality Control Board and the Planning Commission.

PF6E. Develop a market and the ability to deliver reclaimed water for appropriate uses.

ELECTRIC SERVICE

As a California municipal corporation, the City of Redding owns, operates and maintains a power transmission and distribution system within the City limits. Given the investment in such a system, and a commitment to providing power at the lowest possible rates, it has historically been Redding's policy to be the sole provider of electric service within the City limits. As areas are annexed, City electric service is made available when PG&E facilities can be purchased or otherwise provided through a logical extension of the City's electric distribution system.

On September 23, 1996, the Governor of California signed into law the landmark electric utility industry restructuring legislation known as AB 1890. Industry restructuring or deregulation is an effort by the state to lower consumers' energy costs by providing competition in the buying and selling of energy. Deregulation only applies to the generation of energy; it does not apply to the distribution of energy.

As industry restructuring unfolds, the City Electric Utility is committed to be the preferred provider of electric service within the City limits.

To remain competitive and to serve present and future demands for electric service, the City will expand the electric system in a logical manner to reliably deliver energy to its customers and will acquire new energy resources as needed to meet customer energy needs.

GOAL PF7
PROVIDE SAFE, RELIABLE, COMPETITIVELY PRICED ELECTRICITY FOR EXISTING AND FUTURE CITY ELECTRIC CUSTOMERS.

Policies to achieve this goal are to:

PF7A. Periodically review and update , as necessary, the City's Electric Utility Strategic Plan to reflect industry restructuring developments and other changing conditions.

PF7B. Continue to budget capital expenditures for buildout of the electric system. Periodically update the system plan to reflect changes in electric usage patterns, regulatory changes, changes in General Plan land use and other circumstances.

PF7C. Require main electric distribution lines to be interconnected (looped) wherever feasible to facilitate the reliable delivery of electricity within the City.

PF7D. Design the electric system to allow service to be provided to all electric customers in the event of a single contingency failure of a City 115kV power line, substation transformer or main 12kV feeder line (other than the failed section).

PF7E. Regularly inspect overhead and underground electric facilities and continue established programs for systematically maintaining and replacing older electric facilities. Maximize opportunities for undergrounding 12kV distribution lines.

PF7F. Develop a diverse energy or power supply mix that is competitive with the California market and is environmentally sensitive.

SOLID WASTE COLLECTION AND DISPOSAL

Solid waste generated in the Planning Area is disposed of at Shasta County's Richard W. Curry/West Central Sanitary Landfill. Under existing state permits, the landfill has sufficient capacity to accommodate the disposal of solid waste at least to the year 2017. Expansion of the facility also appears to be plausible at such time as increased capacity is warranted beyond the extent of existing permits.

Although Shasta County owns the Richard Curry Landfill, it has contracted with the City of Redding for the operation and management of the facility. This arrangement was formalized in 1988. All residential, commercial and industrial refuse in Redding is collected by City personnel. The Anderson-Cottonwood Disposal Service provides refuse service to those portions of the Planning Area outside the City limits. The City takes over refuse collection and disposal responsibilities, as areas are annexed.

Since 1995, the City has operated it own Solid Waste Transfer Station for the transfer of City-collected residential, commercial, and industrial refuse and the transfer of self-haul public refuse. The facility also has the capability of processing materials collected by curbside recycling programs and contains a household hazardous waste drop-off/processing area, and a composting area.

Recycling efforts within the City currently focus on the collection of residential, curbside recyclables and green waste, community education, and operation of a voluntary drop-off facility at the Solid Waste Transfer/Recycling Facility. Commercial recycling programs include the collection of corrugated cardboard, bar glass, office paper, newspaper, plastic containers, and the diversion of wood and metal wastes. The Solid Waste Utility is conducting audits of businesses' wastes to identify and divert potential recyclables from the waste stream.

Future recycling programs will include automated collection of green waste and recyclables, which could increase customer participation and waste diversion rates. With the implementation of automated collection of recyclables, the Utility may begin collecting additional recyclables, such as waste paper, junk mail, and additional plastics (Types #3 and #7).

GOAL PF8

PROVIDE FOR EFFICIENT COLLECTION AND DISPOSAL OF SOLID WASTE WHILE MAINTAINING AN ADEQUATE WASTE DISPOSAL CAPACITY.

Policies to achieve this goal are to:

PF8A. Establish the following thresholds for solid waste collection and disposal facilities:

- Pursue expansion of the City's solid waste transfer station when collection activities approach 85 percent of facility capacity or additional space is needed to accommodate desired separation and recycling activities.

PF8B. Continue to require solid waste collection service for residential, commercial and industrial uses within the incorporated area.

PF8C. Continue to implement the City's Source Reduction and Recycling Element and expand identified programs, when feasible, in order to meet or exceed state mandated waste diversion goals.

PF8D. Promote recycling and other measures designed to reduce the generation of solid waste.

PF8E. Continue to work cooperatively with Shasta County to address regional issues related to solid waste disposal and waste reduction.

STORMWATER FACILITIES

The Redding Planning Area contains fifteen hydrologic basins. Storm drainage facilities within the City limits are operated and maintained by the City. Adjacent to incorporated cities, the responsibility resides with the County of Shasta. As new areas are annexed, the City assumes responsibility for stormwater management.

Existing storm drainage facilities consist of conventional drop inlet/storm drainage pipeline collection and conveyance systems located throughout the City. These systems typically outfall into natural ravines or tributaries to the Sacramento River where the water is ultimately discharged. Recent studies have indicated that a regional detention/retention approach to stormwater management may be the most effective strategy to accomplish adequate flood protection within the Planning Area.

GOAL PF9
AVOID INCREASES IN EXISTING 100-YEAR FLOOD LEVELS.

Policies to achieve this goal are to:

PF9A. Establish the following thresholds for stormwater drainage facilities:

- Design drainage facilities to convey a 100-year storm.
- Until adequate regional stormwater facilities are in place, utilize a policy of "no net increase in runoff" for development projects in all drainage basins where existing development is within the 100-year floodplain.

PF9B. Select and pursue the acquisition of sites considered appropriate for regional stormwater detention/retention facilities within the incorporated area.

PF9C. Construct regional stormwater detention/retention basins at locations that will minimize current flooding risk.

PF9D. Encourage Shasta County and the City of Shasta Lake to participate in the City's regional systems and/or develop a system of regional detention facilities that will complement the City's system.

PF9E. Encourage project designs that minimize drainage concentrations and coverage by impermeable surfaces.

PF9F. Maintain all drainage facilities, including detention basins and both natural and manmade channels, to ensure that their full carrying capacity is not impaired.

CORPORATION YARD

An often overlooked component of providing a variety of services is the space needed to accommodate and service the vehicles, equipment, and supplies that are utilized by various City Departments. The City's corporation yard currently houses the following types of operations:

- Public Works Field Operations (water, wastewater, streets, electricity)
- Parks maintenance.
- Fleet maintenance.
- Building maintenance.

As the City continues to grow, it must ensure that its corporation yard is adequately sized and configured to accommodate the storage, repair, and operational needs of the City.

GOAL PF10

ENSURE THAT FACILITIES ARE PROVIDED TO ACCOMMODATE THE CITY'S STORAGE, REPAIR, AND OPERATIONAL NEEDS.

Policies to achieve this goal are to:

PF10A. Prepare a strategic improvement plan for the corporation yard to address long-term needs including, but not limited to: ultimate land area, types of buildings and structures, indoor and outdoor material storage, screening, office space, and access and storage for vehicles and equipment.

TRANSPORTATION FACILITIES

There are a number of modes of transportation which are utilized within a community. These include, but are not limited to: vehicular, air, transit, rail, bicycle, and pedestrian. Of these items, the most extensive and costly facilities that are provided and maintained by the City are: streets, bridges, airports, and transit facilities.

Rail service, which is provided by private companies, as well as those features designed to accommodate bicycle, pedestrian and equestrian modes are addressed as appropriate within the Transportation and Recreation Elements. Streets and highways, airports, and transit services are also addressed in the Transportation Element.

STREETS

The City is responsible for ensuring the construction and maintenance of all public streets, sidewalks, bridges, bikeways, traffic signals and street signage within the incorporated City Limits. The City also maintains a variety of Caltrans facilities consistent with the terms of various cooperative agreements. Developers are either partially or totally responsible for new street construction depending on the type and location of the project. The City uses public funds to build or improve major streets when past development did not make these improvements as part of their projects.

GOAL PF11

MAINTAIN, AND EXPAND WHEN NECESSARY, A STREET SYSTEM THAT ALLOWS ALL USERS TO TRAVEL SMOOTHLY AND SAFELY.

Policies to achieve this goal are to:

PF11A. Establish the following thresholds for streets and intersections:

- Maintain a Level of Service "C" on all City roadways and intersections, except at those locations identified within the Transportation Element, where a LOS "D" is appropriate.
- Major arterials and intersections should be programmed for ultimate lane improvements five years in advance of projections showing LOS declines below adopted standards.

PF11B. Establish a program and funding mechanism to complete portions of arterials that were not constructed to ultimate lane widths in conjunction with adjacent development and now create irregular links or capacity constraints within the system.

PF11C. Reconstruct existing streets as appropriate to comply with current design standards, when funding becomes available. Such improvements may include, but are not limited to: paving, curbs, gutters, sidewalks, signage, landscaping, lighting, raised medians, bikeways and bus pullouts.

PF11D. Establish a program to conduct periodic street maintenance activities such as slurry seals, overlays, and pavement reconstruction to optimize public expenditures and level of service.

PF11E. Develop a program to establish street "plan lines" for future street extensions noted in the Transportation Element.

BRIDGES AND OVERCROSSINGS

The City of Redding is fortunate to have natural features, such as the Sacramento River and its tributaries, traverse through its Planning Area. However, these features, as well as manmade features such as Interstate 5 and the Union Pacific Railroad can also create barriers to vehicular and pedestrian travel. As Redding develops, it will need to consider and pursue improvements to existing and future bridge/overcrossing facilities if desired access to growth areas and roadway Level of Service standards are to be achieved and maintained.

GOAL PF12

ENSURE THAT BRIDGE AND OVERCROSSING IMPROVEMENTS WHICH ARE ESSENTIAL TO THE CITY'S CIRCULATION PLAN ARE PROVIDED.

Policies to achieve this goal are to:

PF12A. Establish the following thresholds for bridges and overcrossings:

- Pursue funding for bridge and overcrossing improvements ten years in advance of projections showing LOS declines below adopted roadway and intersection standards.
- Establish plan lines and begin any necessary right-of-way- acquisition ten years in advance of the anticipated construction of new bridge and overcrossing facilities identified within the City's Circulation Plan.

PF12B. Identify appropriate locations for grade separations at railroad crossings and pursue their construction.

PF12C. Consider the location of future bridge and overcrossing improvements when development is proposed near those areas to ensure that opportunities to construct the facilities will not be precluded in the future.

TRANSIT FACILITIES

Public transportation in the Redding area is provided by the Redding Area Bus Authority (RABA), which operates both fixed route and demand response transit services. The fixed route service consists of 13 routes with individual stops at quarter-mile increments. The demand response service provides curb-to-curb transportation for individuals who, because of a mobility impairment or other limitations, are not able to use a standard fixed route system.

RABA began providing service in 1981 and through route extensions, fleet acquisition and facility upgrades, continues to meet the challenges of an expanding urban center.

One of the most significant improvements completed in recent years is Phase I of RABA's new intermodal passenger transfer facility which was constructed in Downtown Redding on the north side of Yuba Street adjacent to the Union Pacific Railroad Tracks.

Construction of Phase II is intended to consolidate regional and interstate bus lines and passenger rail service with the RABA system at a single location. The proposed facility would create a more convenient link between rail and commercial bus or public transit services.

GOAL PF13

PROVIDE AN EFFICIENT AND RELIABLE PUBLIC TRANSIT SYSTEM THAT SERVES ALL SECTORS OF THE COMMUNITY.

Policies to achieve this goal are to:

PF13A. Establish the following threshold for transit-related facilities:

- Work to balance required fare box ratios with the desire to reduce headways on principal routes to one-half hour to encourage ridership.

PF13B. Complete all planned phases of the City's central intermodal transfer facility. Encourage relocation of the existing Greyhound Terminal to the RABA site.

PF13C. Establish secondary transfer facilities at strategic locations throughout the City.

PF13D. Pursue the establishment of Park-n-Ride facilities as appropriate throughout the community. These activities may include delineation of such facilities within under-utilized parking lots.

PF13E. Consider utilizing impact fees to finance transit facilities and services.

AIRPORT FACILITIES

There are two airports located within the Planning Area. The Redding Municipal Airport, located in the southeast portion of the City, is designated as a certified airport for commercial airline operations. Benton Airpark, located close to Downtown Redding at Placer Street and Airpark Drive, is a general aviation airport which provides commercial reliever support to the Redding Municipal Airport. Both facilities are owned and operated by the City of Redding. The availability of convenient air transportation for residents and businesses is an asset to the community and can be used as a marketing tool in the City's economic development efforts.

The 1995 Airport Master Plan outlines future improvements planned for the Redding Municipal Airport and Benton Airpark. In addition to a listing of proposed improvement projects, the Master Plan identifies estimated costs and general time frames (short-term, long-term, etc.) for installation of the improvements.

GOAL PF14

PROVIDE CONVENIENT AIRPORT SERVICES FOR THE COMMUNITY WITH MINIMAL ADVERSE IMPACTS.

Policies to achieve this goal are to:

PF14A. Implement the Airport Master Plan and Comprehensive Land Use Plans adopted for the Redding Municipal Airport and Benton Airpark. Periodically update these documents as appropriate.

PF14B. Continue to upgrade passenger aviation facilities, as funding becomes available, and pursue expansion of passenger aviation services.

PF14C. Identify and pursue the acquisition of additional land area determined necessary for the protection of existing airport operations or anticipated future expansion of airport facilities.

PF14D. Develop strategies to generate ongoing funding for general airport operations and a reserve which can be used to meet the matching fund requirements of grant funding sources.

RECREATIONAL AND CULTURAL FACILITIES

Recreation facilities consisting of public parks and special use facilities, as well as cultural amenities such as a civic auditoriums and libraries, are essential features which contribute to the overall quality of life within a community. The City of Redding and other public/private groups and individuals have made a commitment to providing and enhancing the quality and availability of these facilities to meet the needs of City's residents and attract visitors to the region.

PARKS

Redding's parks and improved open space areas are one of the most visible and valued public amenities provided by the City. Due to the importance of park and recreation facilities, Redding's General Plan contains a Recreation Element to specifically address those facilities and programs. The Element identifies various types of parks and parkland, as well as suggested sizes for specific park types. The recommended acreage of parkland per 1,000 population is 10 acres. The Element also suggests that at least one Community Park, 40 acres in size or greater, be provided in each quadrant of the City. In order to maximize efficiencies and reduce maintenance costs, it is recommended that parks be collocated with schools whenever possible. Strategies which encourage private sector development of park facilities and improved open space are also included.

GOAL PF15

MAINTAIN A PUBLIC PARK AND RECREATION SYSTEM SUITED TO THE NEEDS OF REDDING RESIDENTS AND VISITORS.

Policies to achieve this goal are to:

PF15A. Establish the following threshold for park facilities: