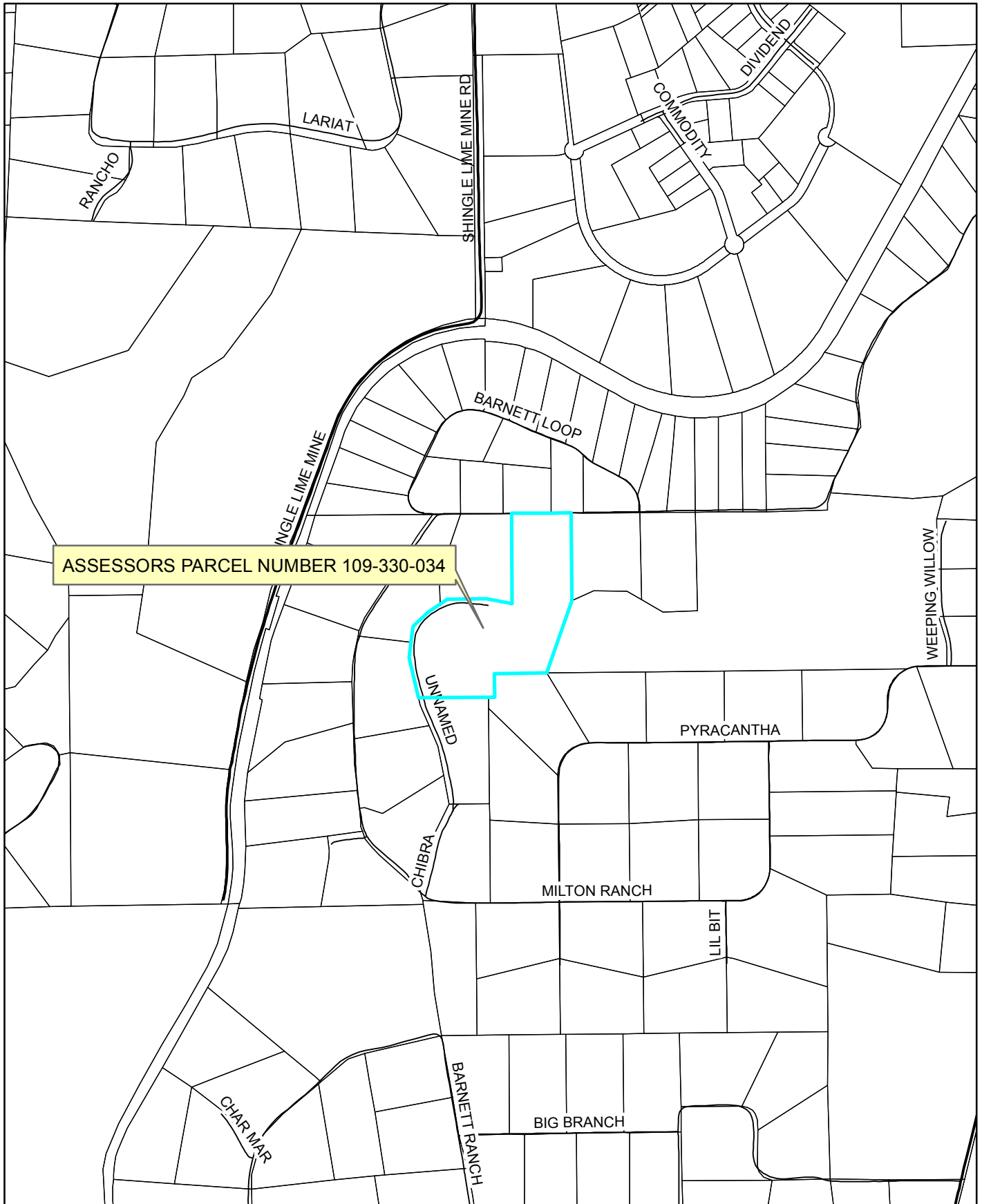


P19-0008 - CROWLEY PARCEL MAP

EXHIBIT A - LOCATION MAP



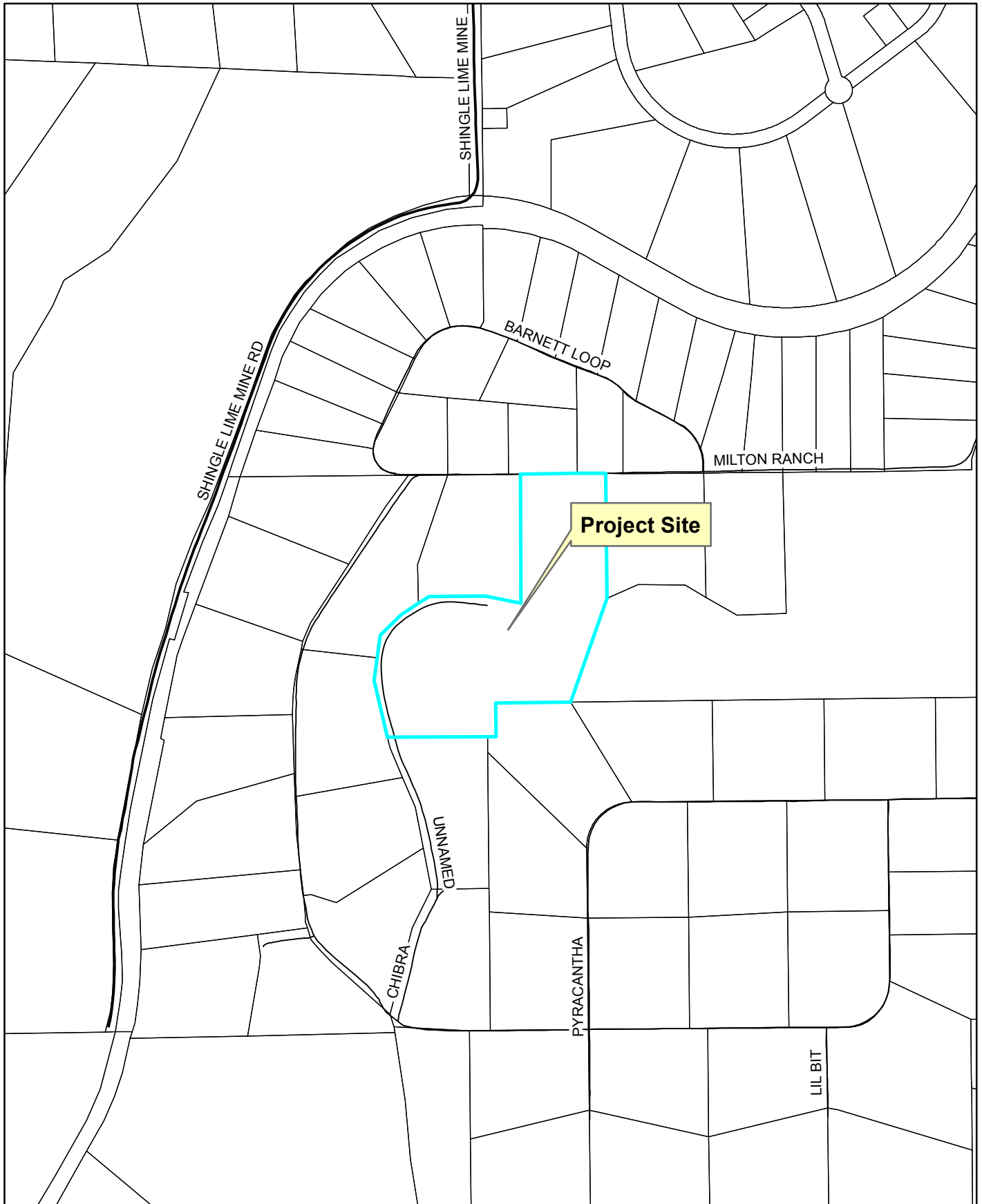
00.00.06 0.12 0.18 0.24
Miles

Scale



P19-0008 - CROWLEY PARCEL MAP

EXHIBIT B - VICINITY MAP



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Miles

Scale



P19-0008 - CROWLEY PARCEL MAP EXHIBIT C - SITE AERIAL PHOTO



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Miles

Scale



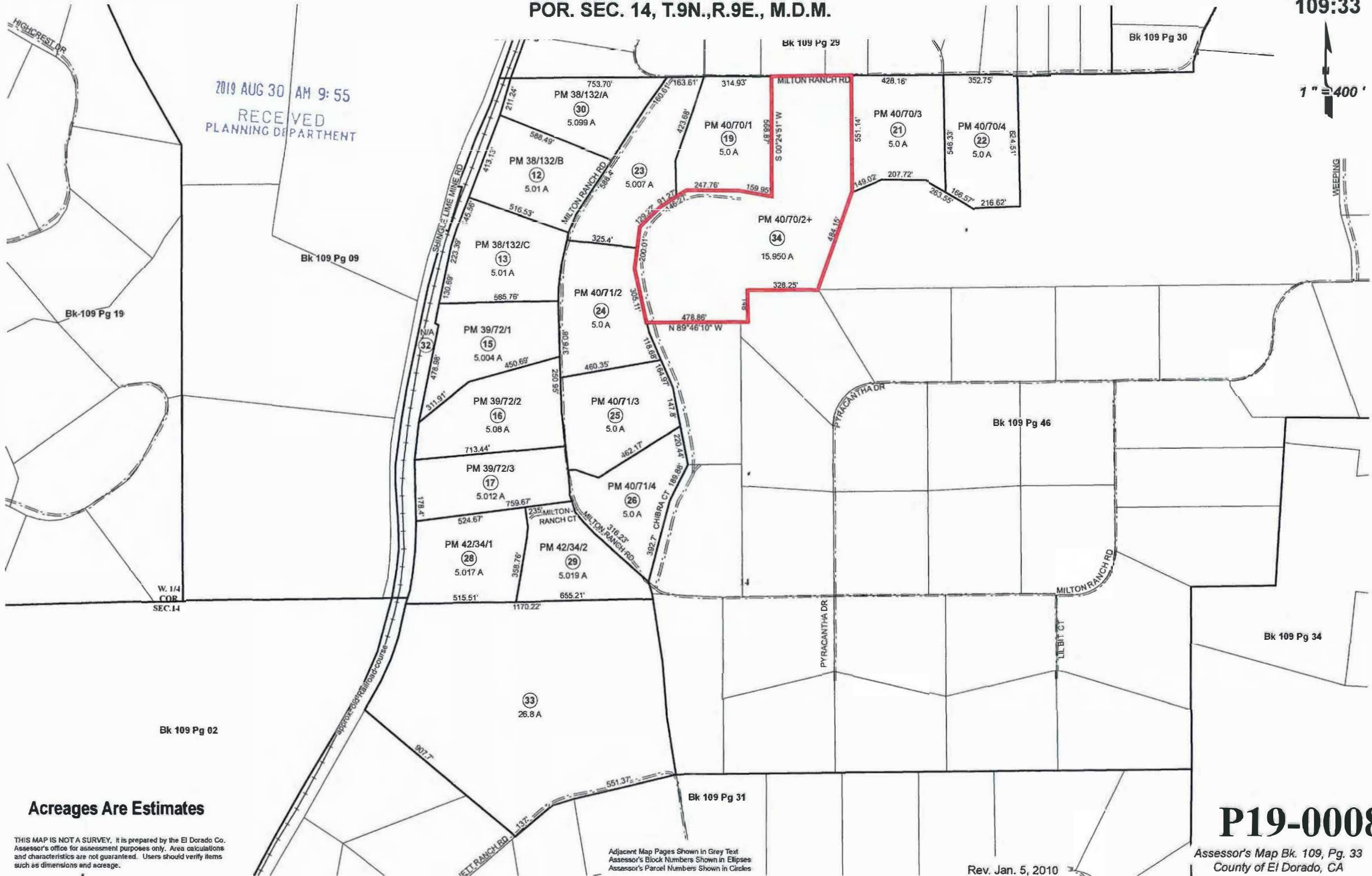
**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT D - ASSESSOR'S PARCEL PAGE**

POR. SEC. 14, T.9N.,R.9E., M.D.M.

109:33



2019 AUG 30 AM 9:55
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Acreages Are Estimates

THIS MAP IS NOT A SURVEY. It is prepared by the El Dorado Co. Assessor's office for assessment purposes only. Area calculations and characteristics are not guaranteed. Users should verify items such as dimensions and acreage.

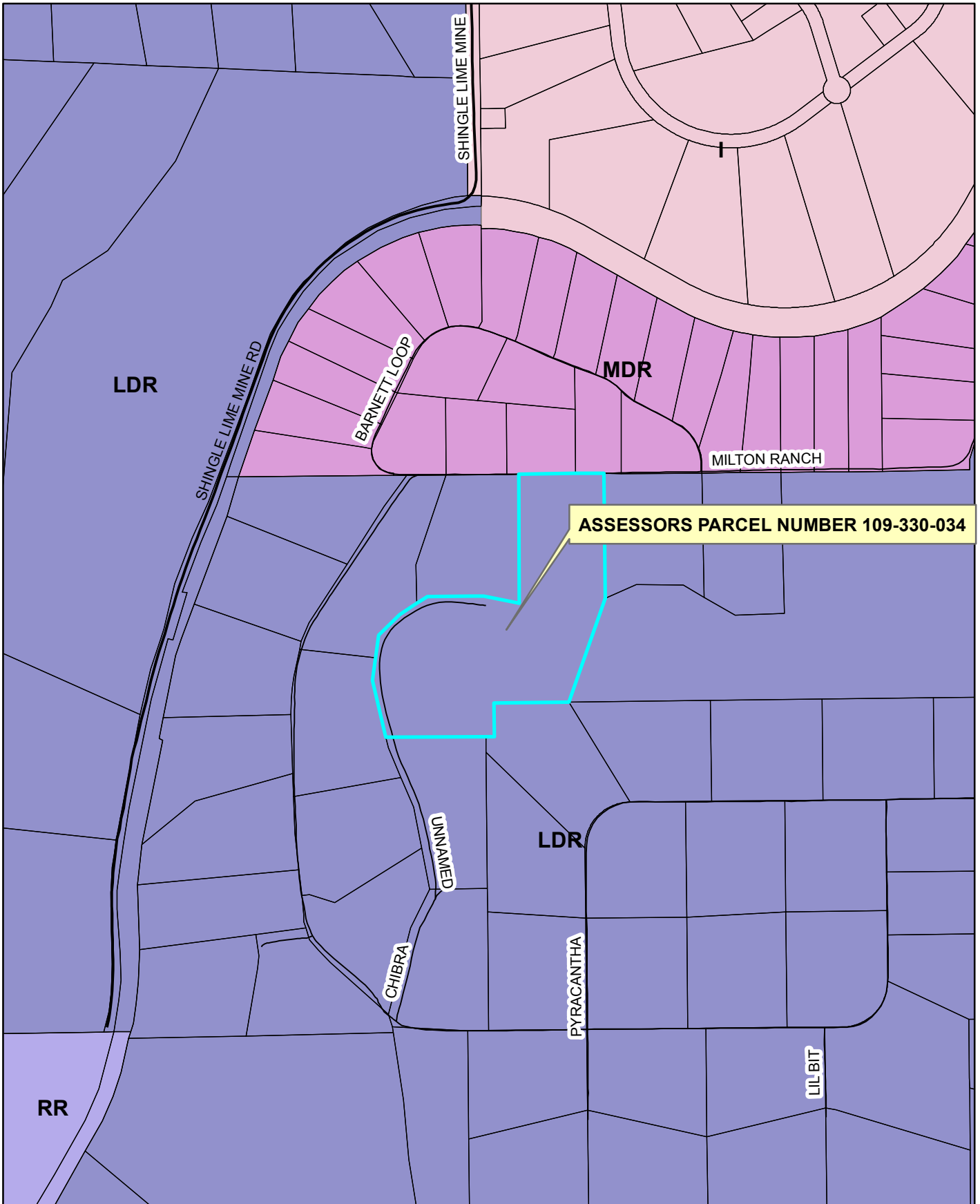
Adjacent Map Pages Shown in Grey Text
Assessor's Block Numbers Shown in Ellipses
Assessor's Parcel Numbers Shown in Circles

Rev. Jan. 5, 2010

P19-0008

Assessor's Map Bk. 109, Pg. 33
County of El Dorado, CA

P19-0008 - CROWLEY PARCEL MAP EXHIBIT E - GENERAL PLAN LAND USE MAP

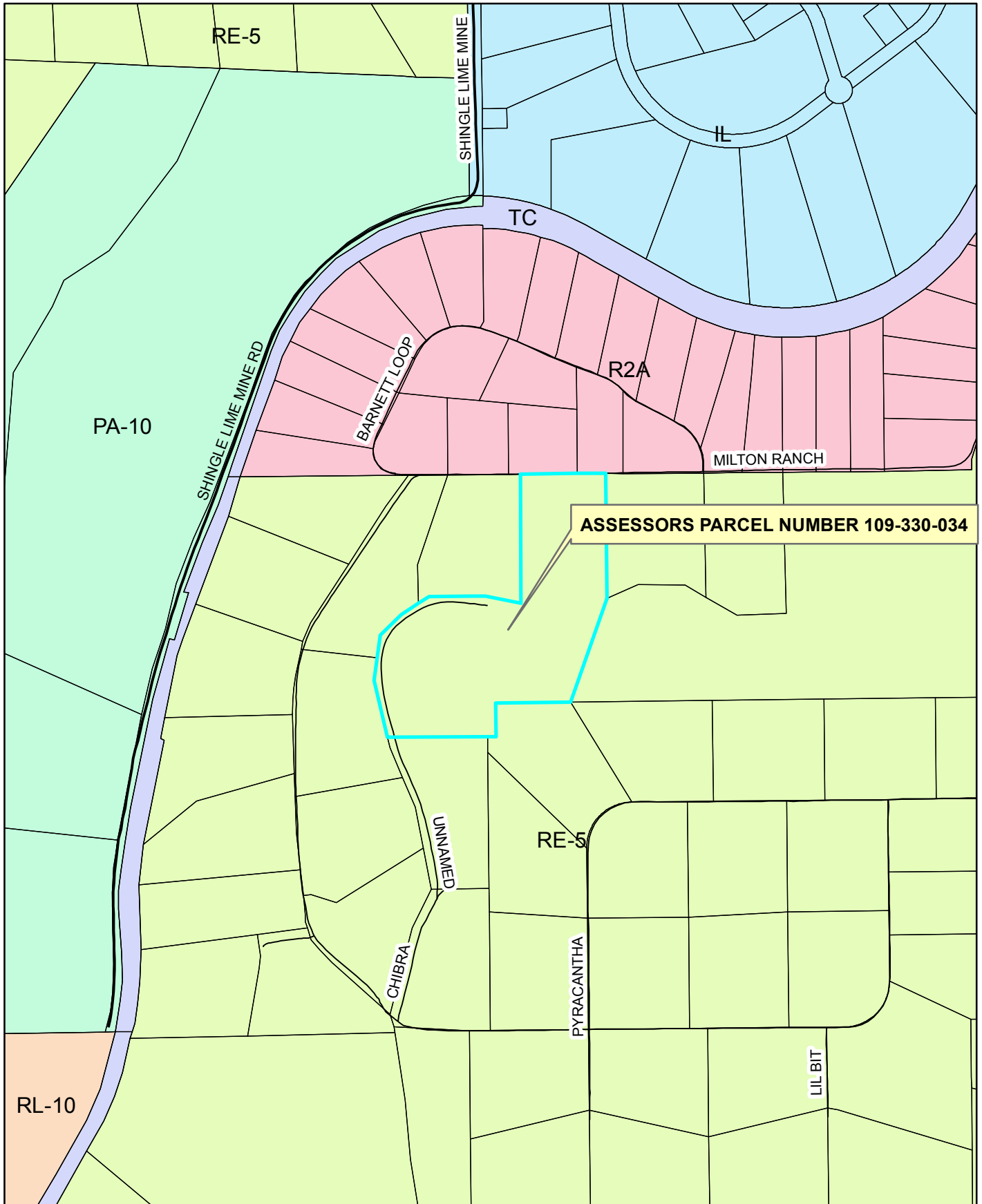


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Miles

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P19-0008 - CROWLEY PARCEL MAP EXHIBIT F - ZONING MAP



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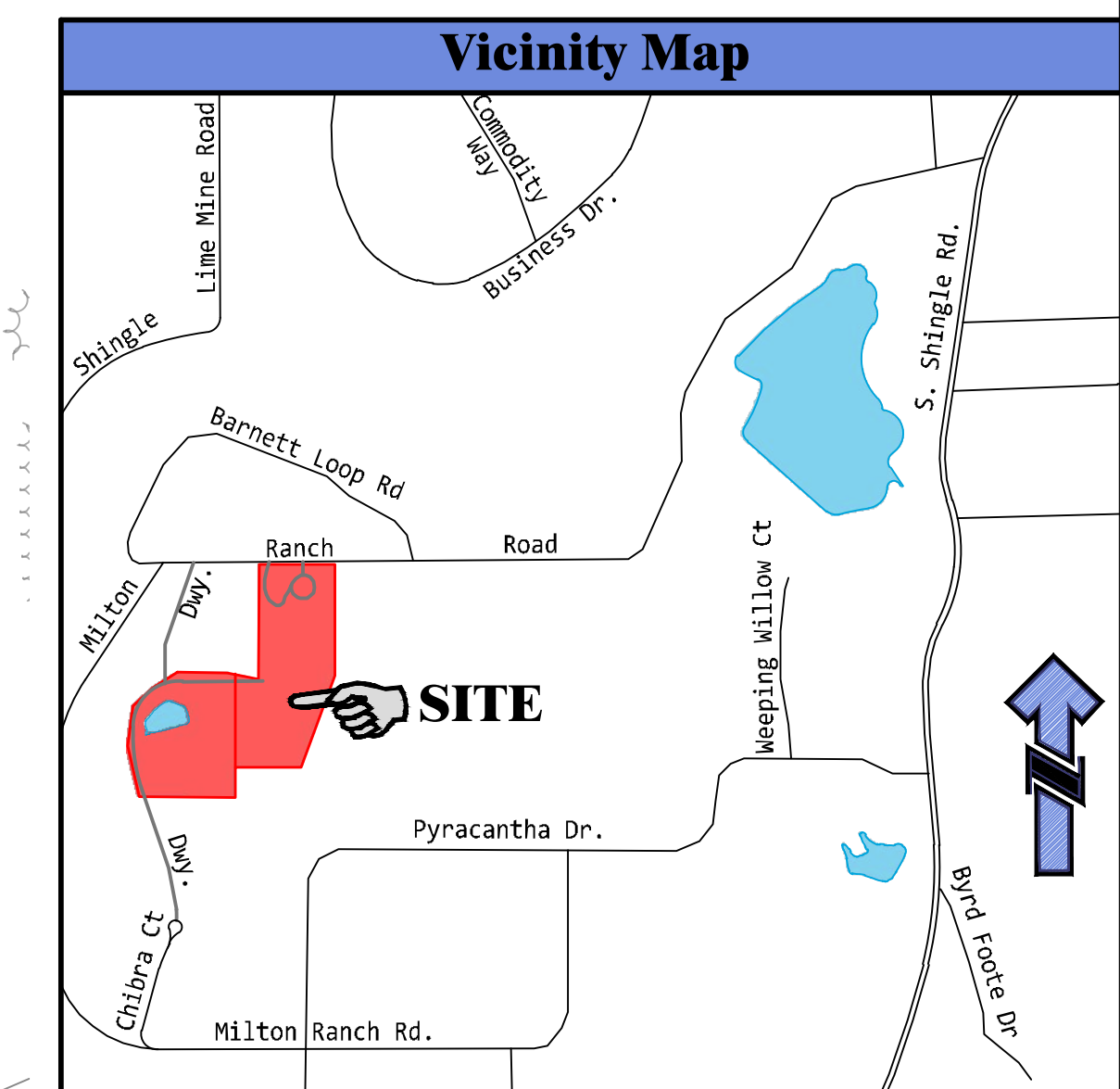
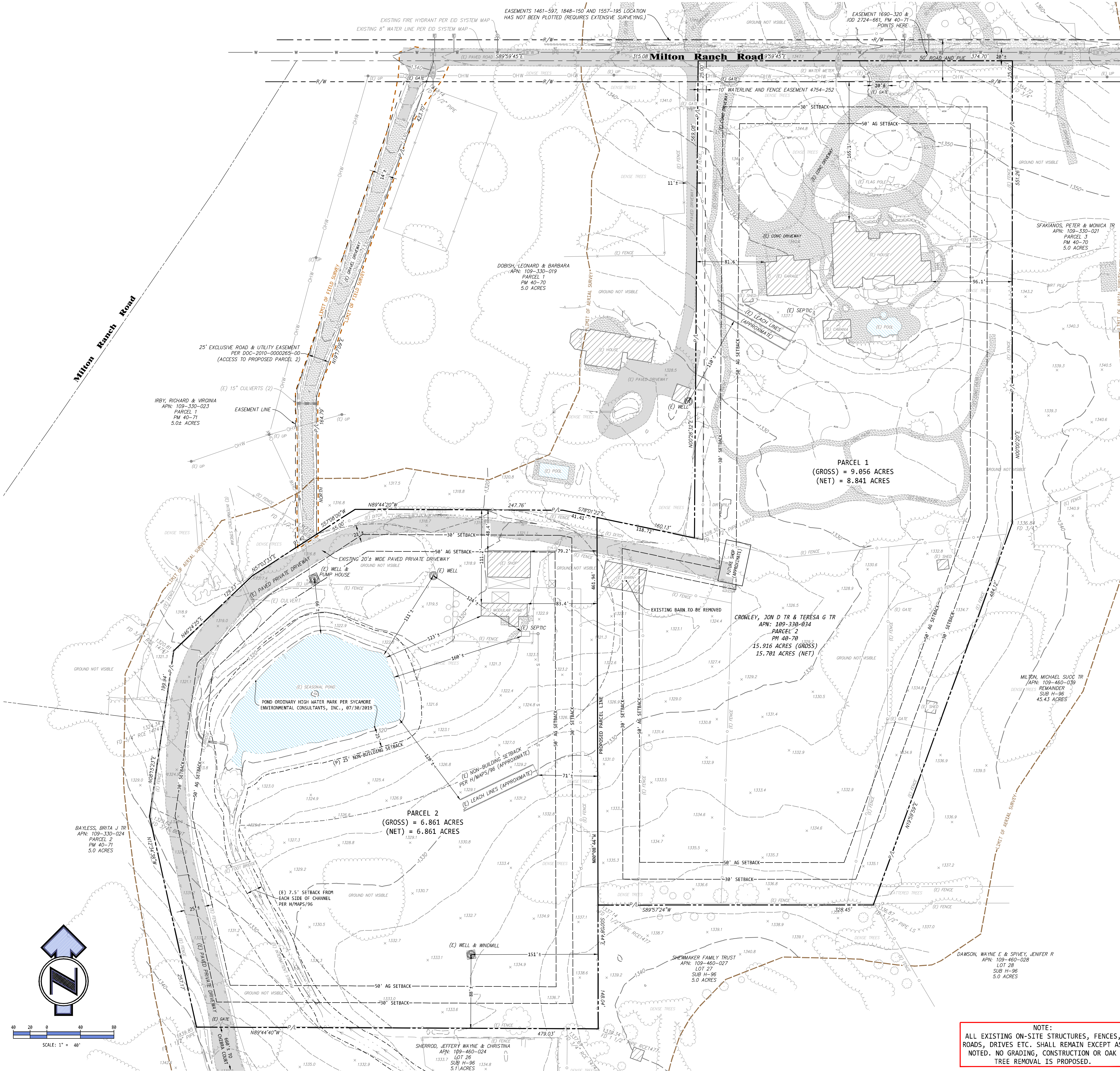


Tentative Parcel Map Crowley Parcel Split

P19-0008 - CROWLEY PARCEL MAP
EXHIBIT G - TENTATIVE PARCEL MAP

LEBECK • YOUNG
ENGINEERING, INC.
3430 ROBIN LANE, BLDG. #2
CAMERON PARK, CA 95682
Ph. 530-677-4080 Fax. 530-677-4096

APN: 109-330-034, El Dorado County, CA
August 2019



Abbreviations

CONC	CONCRETE	OHW	OVERHEAD WIRES
(E)	EXISTING	(P)	PROPOSED
EDC	EL DORADO COUNTY	P/L	PROPERTY LINE
EL	ELEVATION	PM	PARCEL MAP
EP	EDGE OF PAVEMENT	PUE	PUBLIC UTILITY EASEMENT
FD	FOUND	R/W	RIGHT OF WAY
FF	FINISHED FLOOR	S	SEWER
FH	FIRE HYDRANT	SUB	SUBDIVISION
FL	FLOWLINE	UP	UTILITY POLE
FND	FOUND	W	WATER
MOW	MOW STRIP/LANDSCAPE BORDER	WV	WATER VALVE

Aerial Survey Notes

- BUILDING OUTLINES INDICATE DRIP LINE, BUT MAY ALSO INCLUDE ELEVATED STAIRS AND MISC. ATTACHMENTS.
- FEATURES IN SHADOWS AND VEGETATION MAY BE OBTUSCURED.
- FEATURES NEAR TALL OBJECTS/STRUCTURES MAY BE OBTUSCURED.
- SMALL SHADOW AND VEGETATION AREAS NOT SHOWN FOR CLARITY.
- MAPPING OUTSIDE OF THE SURVEY CONTROL PERIMETER MAY NOT MEET MAP ACCURACY STANDARDS.
- PLANIMETRIC AND TOPOGRAPHIC FEATURES IN OBTUSCURED AREAS MAY NOT MEET MAP ACCURACY STANDARDS.
- PLOTTED CONTROL POINT ELEVATIONS ARE AT GROUND LEVEL UNLESS OTHERWISE INDICATED.
- ACCURACY STANDARDS: ASPRS CLASS 1 & NMA

Parcel Data

PARCEL#	GROSS AREA	NET AREA
EXISTING	15.917 AC. (693,311.12 SF)	15.791 AC. (683,941.23 SF)
PARCEL 1	9.056 AC. (394,466.53 SF)	8.841 AC. (385,096.65 SF)
PARCEL 2	6.861 AC. (296,844.58 SF)	6.861 AC. (296,844.58 SF)

Project Data

OWNER / APPLICANT:	JON D. JR. & TERESA G. CROWLEY REV. FAMILY TRUST JON D. JR. & TERESA G. CROWLEY, TRUSTEES 5430 MILTON RANCH ROAD SHINGLE SPRINGS, CA 95682 PHONE: 530-677-1651 EMAIL: tenesacrowley@gmail.com
PREPARED BY:	LEBECK • YOUNG ENGINEERING, INC. 3430 ROBIN LANE, BLDG. #2 CAMERON PARK, CA 95682 Ph. 530-677-4080 Fax. 530-677-4096
SCALE:	1" = 40'
CONTOUR INTERVAL:	2 FEET
SOURCES OF TOPOGRAPHY:	FIELD TOPOGRAPHY BY A.R. DIVERS LAND SURVEYING. AERIAL TOPOGRAPHY BY VERTICAL MAPPING RESOURCES.
SECTION, TOWNSHIP & RANGE:	POR. SEC. 14, T.9N., R.9E., M.D.M.
PARCEL ADDRESS:	5430 MILTON RANCH RD, SHINGLE SPRINGS, CA 95682
ASSESSOR'S PARCEL NUMBER:	109-330-034
PRESENT LAND USE DESIGNATION:	LDR
PROPOSED LAND USE DESIGNATION:	LDR
PRESENT ZONING:	RE-5
PROPOSED ZONING:	RE-5
TOTAL AREA:	15.92+ ACRES
TOTAL NUMBER OF PARCELS:	1 EXISTING, 2 PROPOSED
MINIMUM PARCEL AREA:	6.86 ACRES
WATER SUPPLY:	PROPOSED PARCEL 1 - EID, PROPOSED PARCEL 2 - WELL
SEWAGE DISPOSAL:	PRIVATE ON-SITE SEPTIC
FIRE PROTECTION:	EL DORADO FIRE PROTECTION DISTRICT
DATE OF PREPARATION:	AUGUST 2019
PROJECT #:	19-128

Approvals

ZONING ADMINISTRATOR:	
APPROVAL/DENIAL DATE:	
BOARD OF SUPERVISORS:	
APPROVAL/DENIAL DATE:	

NOTE:
ALL EXISTING ON-SITE STRUCTURES, FENCES,
ROADS, DRIVES ETC. SHALL REMAIN EXCEPT AS
NOTED. NO GRADING, CONSTRUCTION OR OAK
TREE REMOVAL IS PROPOSED.

Crowley Parcel Split
Tentative Parcel Map



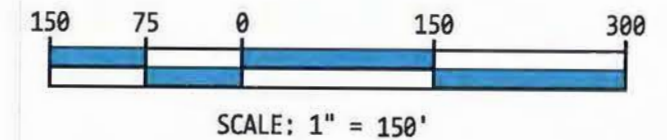
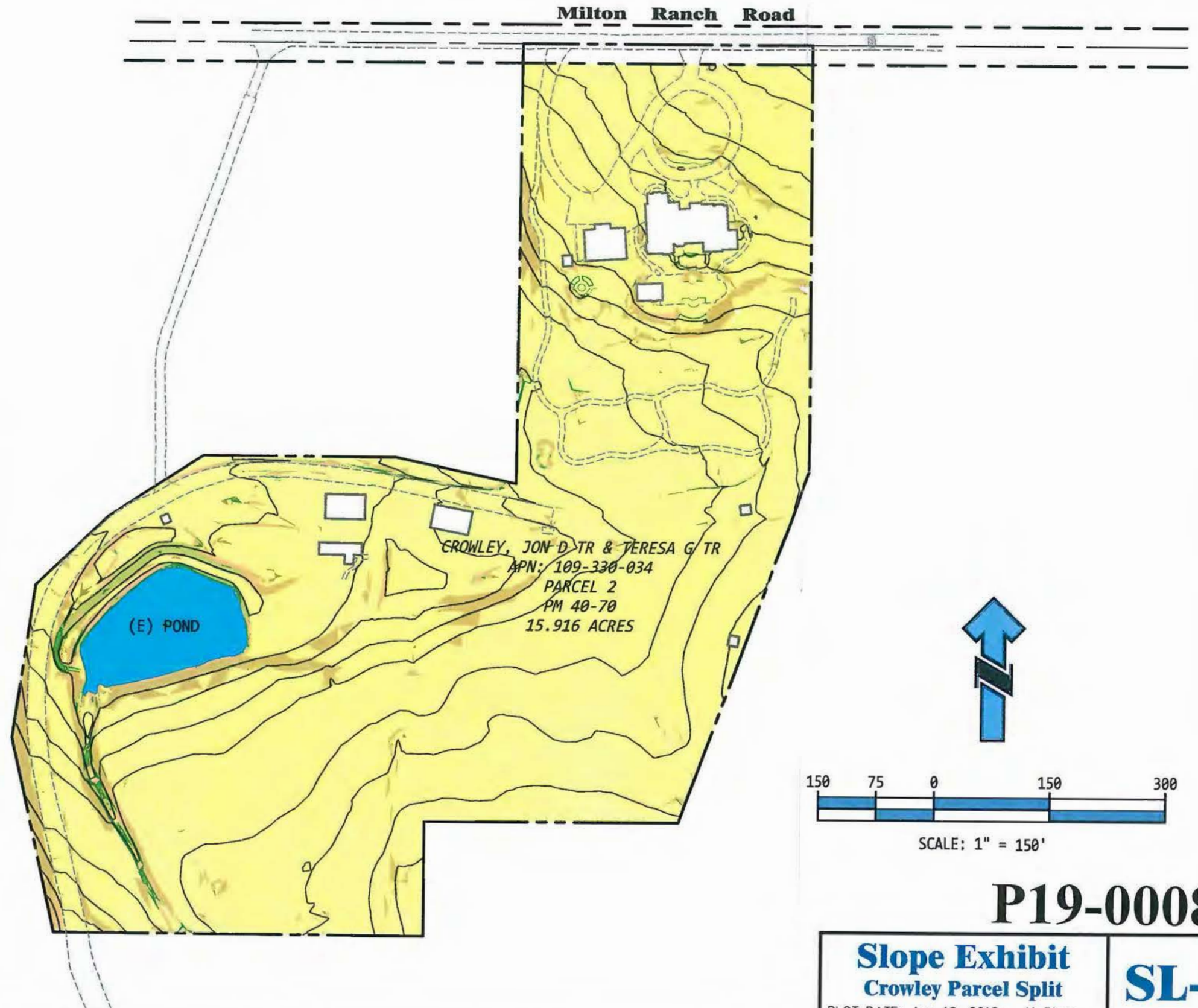
**LEBECK - YOUNG
ENGINEERING, INC.**
3430 ROBIN LANE, BLDG. #2
CAMERON PARK, CA 95682
Ph. 530-677-4080 Fax. 530-677-4096

Slope Exhibit for
Crowley Parcel Split
APN: 109-330-034, El Dorado County, CA
August 2019

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT H - SLOPE MAP**

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Slope Analysis & Legend				
Minimum Slope	Maximum Slope	Area (SF)	% of Site	Color
0%	10%	621,218	91%	Yellow
>10%	20%	41,791	6%	Light Orange
>20%	30%	7,802	1%	Orange
>30%	40%	7,614	1%	Light Green
>40%	-	4,763	1%	Green



P19-0008

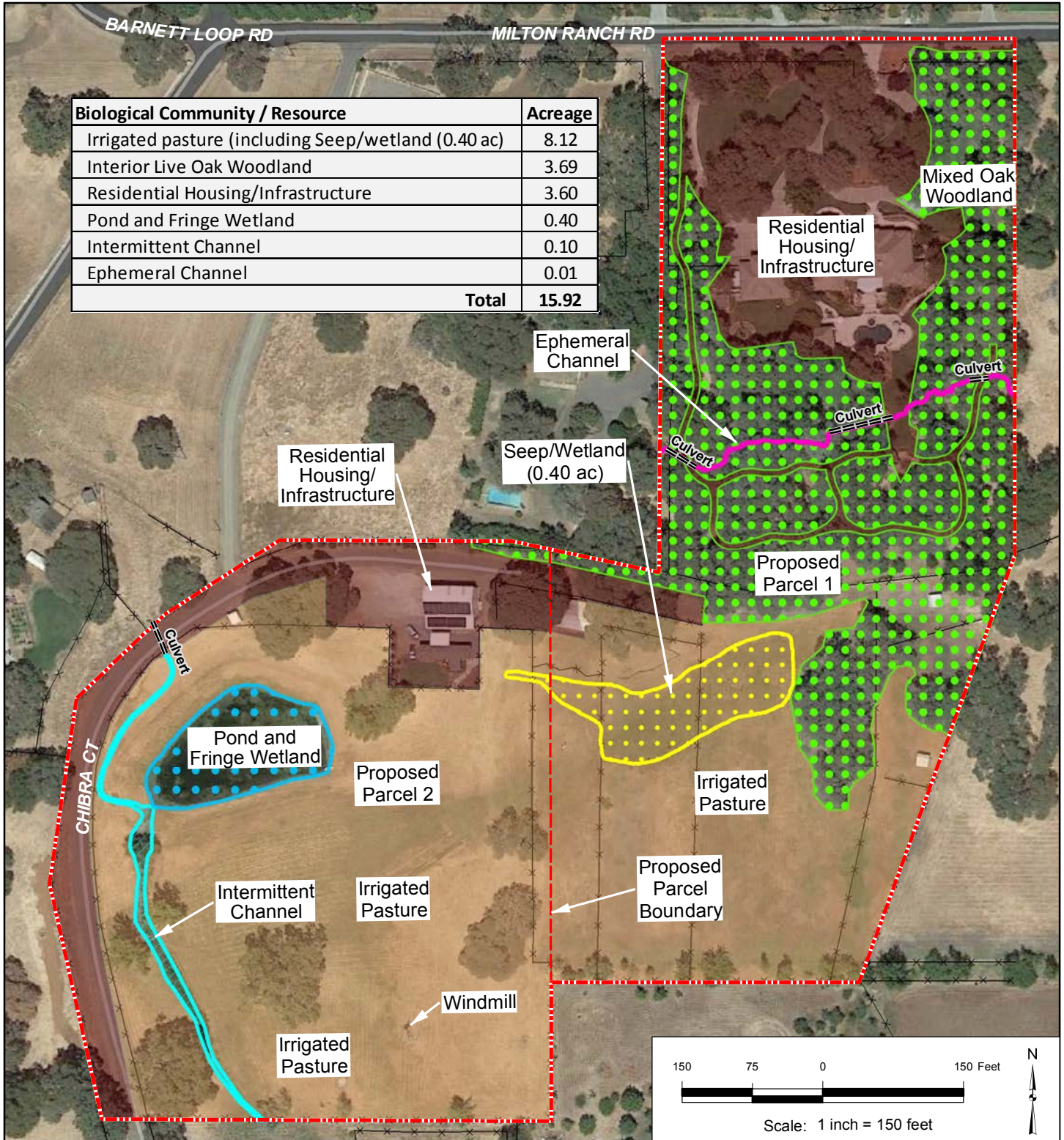
**Slope Exhibit
Crowley Parcel Split**

PLOT DATE: Aug 19, 2019 - 11:31am

SL-1

P19-0008 - CROWLEY PARCEL MAP

EXHIBIT I - MAP LABELED WITH BIOLOGICAL RESOURCES



Crowley Tentative Parcel Map Project
 El Dorado County, CA
 8 June 2020

- Biological Study Area (15.92 ac)
- Proposed Parcel Boundary
- Pond and Fringe Wetland
- Intermittent Channel
- Ephemeral Channel
- Seep/ Wetland (0.40 ac)
- Developed
- Irrigated Pasture
- Interior Live Oak Woodland
- x-x-x Existing Fence



Basemap: Tentative Parcel Map of Crowley Parcel Split by Lebeck • Young Engineering, Inc
 CAD File: Crowley_TM 2020-05-22.dwg (Rev'd: 22 May 2020)
 Aerial Photo: 26 August 2018
 GEO1 Vivid Maxar Imagery
 ArcGIS World Imagery Basemap layer

Figure 4.
 Biological Resources Map



Bianca Dinkler <bianca.dinkler@edcgov.us>

Project for Review & Comment - P19-0008 - CROWLEY PARCEL SPLIT

Dave Spiegelberg <dave.spiegelberg@edcgov.us>

Fri, Jun 19, 2020 at 2:45 PM

To: Bianca Dinkler <bianca.dinkler@edcgov.us>

Cc: Bobbie <Bobbie@lebeckeng.com>, Bobbie Lebeck <bobbie@lebeckyoung.com>, Eric Alliguie <eric@lebeckeng.com>

Bianca -

DOT takes no exceptions to this parcel split, and offers no further comments or conditions.

Dave W. Spiegelberg, P.E.

Senior Civil Engineer

County of El Dorado

Community Development

Department of Transportation, Development Section

2850 Fairlane Court

Placerville, CA 95667

530-621-6077 / 530-957-3521 (cell) / 530-295-2655 (fax)

dave.spiegelberg@edcgov.us

[Quoted text hidden]

P19-0008 - CROWLEY PARCEL MAP

EXHIBIT J - COMMENTS, DEPARTMENT OF TRANSPORTATION



ENVIRONMENTAL MANAGEMENT DEPARTMENT

<http://www.edcgov.us/EMD/>

PLACERVILLE OFFICE:

2850 Fairlane Court
Placerville, CA 95667
(530) 621-5300
(530) 626-7130 Fax

LAKE TAHOE OFFICE:

924 B Emerald Bay Road
South Lake Tahoe, CA 96150
(530) 573-3450
(530) 542-3364 Fax

INTEROFFICE MEMORANDUM

TO: **BIANCA DINKLER**, Project Planner
EDC Development Services Division

FROM: Environmental Management

SUBJECT: P19-0008 CROWLEY PARCEL SPLIT

DATE: MAY 6, 2020

CC:

Environmental Management Division staff has reviewed the subject application. The following reflects our concerns and requirements:

Environmental Health (Bryan Vyverberg x5924):

Reviewed septic system, well, and soil data for the proposed parcels. Each proposed parcel will meet the minimum 5 acre parcel size for residences serviced by both a well and a septic system. Well production reports for existing water wells prove an adequate water supply exists for each proposed parcel. The soil percolation rate is 98 minutes per inch, below the maximum 120 minute soil percolation rate allowed in the El Dorado County Local Agency Management Plan for land divisions. Adequate soil depth exists to meet minimum groundwater separation requirements.

Solid Waste (Timothy Engle x6587)

No comments or concerns

Hazardous Materials (Mark Moss x7665):

No comments or concerns

<http://www.edcgov.us/emd>

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT L - COMMENTS, COUNTY SURVEYOR**

**COUNTY OF EL DORADO
OFFICE of COUNTY SURVEYOR**

MEMO

DATE: April 20, 2020

TO: Bianca Dinkler, Project Planner

FROM: Phil Mosbacher - phone (530) 621-5320 philip.mosbacher@edcgov.us

SUBJECT: P19-0008–CROWLEY PARCEL MAP (Lebeck Young Engineers)

We have looked over the application and have the following comments.

- 1) All survey monuments must be set prior to filing the Parcel Map.
- 2) Situs addressing for the project shall be coordinated the County Surveyors Office prior to filling the Final Map.
- 3) Prior to filing the Parcel Map, a letter will be required from all agencies that have placed conditions on the map. The letter will state that **“all conditions placed on P19-0008 by (that agency) have been satisfied.”** The letter is to be sent to the County Surveyor and copied to the Consultant and the Applicant.



P19-0008 - CROWLEY PARCEL MAP
EXHIBIT M - COMMENTS, EL DORADO IRRIGATION DISTRICT

Bianca Dinkler <bianca.dinkler@edcgov.us>

P19-0008 - TAC Agenda May 11, 2020

1 message

Brink, Mike <mbrink@eid.org>
To: Bianca Dinkler <bianca.dinkler@edcgov.us>

Wed, Apr 29, 2020 at 9:03 AM

Bianca –

Regarding P19-0008, based on our records there are two dwelling on the parcel to be split. One is apparently served by a well, the other has EID water. I assume the parcel split will result in each dwelling being on its own parcel.

The existing EID meter should serve one parcel. If EID water is needed on the resulting parcel that does not have EID water, they will need to pay associated Facility Capacity Charges, along with the costs of the meter install.

Please let me know if any questions.

Mike Brink, PE

EID Supervising Engineer

(530) 642-4054

From: Debra Ercolini <debra.ercolini@edcgov.us>
Sent: Monday, April 27, 2020 3:17 PM
Subject: TAC Agenda May 11, 2020

Good afternoon,

Please find attached the May 11, 2020 TAC Agenda.

Thank you, Debbie

--

Debra Ercolini

Development Aide II

Biological Resources Evaluation
for the
Crowley Tentative Parcel Map Project

APN 109-330-34

El Dorado County, CA



Prepared by:

Sycamore Environmental Consultants, Inc.

6355 Riverside Blvd., Suite C

Sacramento, CA 95831

Phone: 916/ 427-0703

Contact: R. John Little, Ph.D.

Prepared for:

Jon and Teresa Crowley

5450 Milton Ranch Road

Shingle Springs, CA 95682

Contact: teresagcrowley@gmail.com

16 June 2020

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION**

*Biological Resources Evaluation
Crowley Tentative Parcel Map Site Project
El Dorado County, CA*

**Biological Resources Evaluation
for the
Crowley Tentative Parcel Map Site Project
APN 109-330-34
El Dorado County, CA**

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**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION**

*Biological Resources Evaluation
Crowley Tentative Parcel Map Site Project
El Dorado County, CA*

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- Appendix A. USFWS Species List
- Appendix B. CNDDDB Summary Report and CNPS Inventory Query
- Appendix C. Plant and Wildlife Species Observed
- Appendix D. Photographs

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION**

*Biological Resources Evaluation
Crowley Tentative Parcel Map Site Project
El Dorado County, CA*

I. SUMMARY OF FINDINGS AND CONCLUSIONS

This Biological Resources Evaluation (BRE) documents baseline biological resources for the Crowley Tentative Parcel Map (TPM) Project (APN 109-330-34), located in the community of Shingle Springs in unincorporated El Dorado County, CA. The 15.917-ac Biological Study Area (BSA) is located in the foothills of the Sierra Nevada and contains a residence, a modular home, concrete driveways, dirt roads, various outbuildings including barns, sheds, and a shop. Vegetation includes oak woodlands, irrigated pasture, two intermittent channels, a seep, and a pond. Biological, botanical, and wetland surveys were conducted in May 2020.

No special-status wildlife or nesting bird species were observed in the BSA on 14 May 2020, during biological surveys. The BSA provides potential habitat for Northwestern pond turtle (*Clemmys marmorata*; syn. *Emys marmorata marmorata*), a California Department of Fish and Wildlife (CDFW 2020a; Species of Special Concern). Nesting birds are regulated by the Migratory Bird Treaty Act or the State of CA.

No special-status plant species were observed in the BSA on 14 May 2020, during a protocol botanical survey conducted during the evident and identifiable period. The BSA provides potential habitat for 9 special-status plant species: Big-scale balsamroot (*Balsamorhiza macrolepis*; CNPS Rank 1B.2); Stebbins' morning-glory (*Calystegia stebbinsii*; Federal Endangered; State Endangered; CNPS Rank 1B.1); Van Zuur's morning-glory (*Calystegia vanzuukiae*; CNPS Rank 1B.3); Chaparral sedge (*Carex xerophila*; CNPS Rank 1B.2); Pine Hill ceanothus (*Ceanothus roderickii*; Federal Endangered; State Rare; CNPS Rank 1B.1); Red Hills soaproot (*Chlorogalum grandiflorum*; CNPS Rank 1B.2); Tuolumne button-celery (*Eryngium pinnatisectum*; CNPS Rank 1B.2); El Dorado bedstraw (*Galium californicum* ssp. *sierrae*; Federal Endangered; State Rare; CNPS Rank 1B.2); and El Dorado County mule ears (*Wyethia reticulata*; CNPS Rank 1B.2).

The BSA is located in El Dorado County Rare Plant Mitigation Area 1. Development in a Rare Plant Mitigation Area requires payment of an in-lieu fee.

Oak woodlands occur in the BSA. The El Dorado County Oak Resources Management Plan (ORMP), adopted in September 2017, regulates oak woodlands and individual oak trees outside of oak woodlands.

The BSA is located in the El Dorado County Important Biological Corridor (IBC). The BSA is outside the U.S. Fish and Wildlife Service (USFWS) recovery boundary for Pine Hill plants (USFWS August 2002). The BSA is not located in an Ecological Preserve, a Priority Conservation Area, or Important Habitat for Migratory Deer Herds (El Dorado County 2018).

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION**

*Biological Resources Evaluation
Crowley Tentative Parcel Map Site Project
El Dorado County, CA*

II. INTRODUCTION

A. Purpose of Report

The purpose of this Biological Resources Evaluation (BRE) report is to document baseline biological resources for the Crowley Tentative Parcel Map Project (Project). This report may be used in support of permit applications and in the California Environmental Quality Act (CEQA) review process. This report does not identify project impacts or mitigation.

B. Project Location

The 15.917-ac BSA is located approximately 2 miles southwest of the community of Shingle Springs (Figure 1) in El Dorado County, CA. The BSA is located in rural residential community along Milton Ranch Rd and Chibra Court Rd (APN 109-330-34; Figure 2). The BSA is located in the USGS Shingle Springs quad (T9N, R10E, Section 18; Figure 1) and is in the Upper Cosumnes Hydrologic Unit (Hydrologic Unit Code 18040013). The geographic coordinates of the BSA are 38.641200° north, 120.955699° west (WGS84), and the UTM coordinates (Zone 10N) are 677,918 meters east, 4,278,943 meters north. Elevation in the BSA ranges from approximately 1,318 to 1,340 feet (ft) above sea level. The northern half of the BSA slopes from north to south and the southern half from south to north. Figure 2 is a 26 August 2018 aerial photo of the BSA and surrounding area.

C. Project Applicant

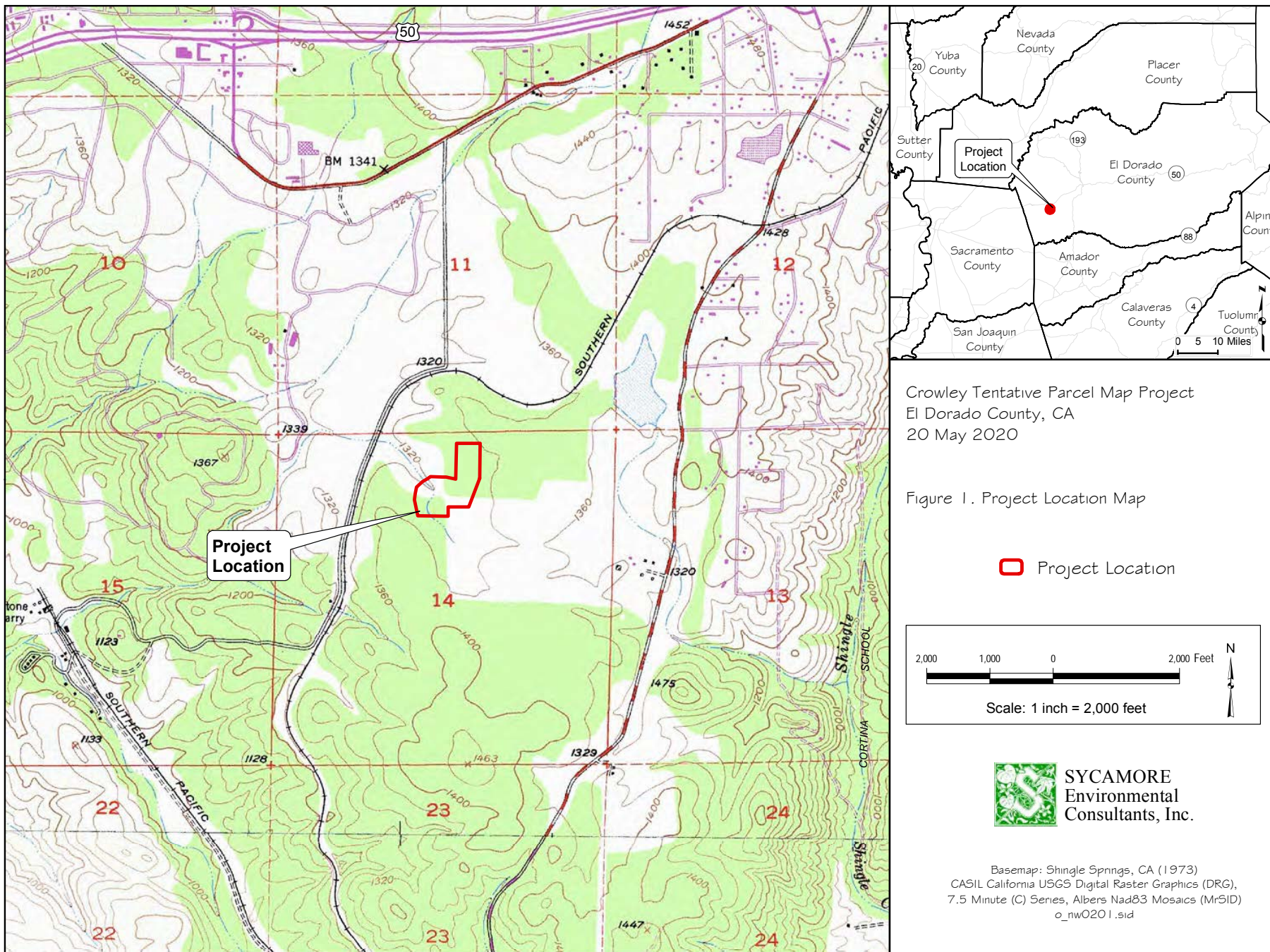
Applicant:

Jon and Teresa Crowley
5450 Milton Ranch Road
Shingle Springs, CA 95682

D. Project Description

The Project involves a Tentative Parcel Map split for the existing 15.917-ac, APN 109-330-34. The existing parcel will be split into two parcels: Parcel 1 will be 9.06 ac and Parcel 2 will be 6.86 ac.

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION**



P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION



Crowley Tentative Parcel Map Project
El Dorado County, CA
20 May 2020

 Project Location

 SYCAMORE
Environmental
Consultants, Inc.

Aerial Photo: 26 August 2018
GEO1 Vivid Maxar Imagery
ArcGIS World Imagery Basemap layer

Figure 2. Aerial Photograph

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION**

*Biological Resources Evaluation
Crowley Tentative Parcel Map Site Project
El Dorado County, CA*

III. STUDY METHODS

A. Studies Conducted

An evaluation of biological resources was conducted to determine whether any special-status plant or wildlife species, their habitat, or sensitive habitats occur in the BSA. Data on known special-status species and habitats in the area were obtained from state and federal agencies. Maps and aerial photographs of the BSA and surrounding area were reviewed. A field survey was conducted to determine the habitats present. The field survey, map review, and a review of the biology of evaluated species and habitats were used to determine special-status species and sensitive habitats that could occur in the BSA.

Special-status species in this report are those listed under the federal or state endangered species acts; the California Native Plant Protection Act; as a California Species of Special Concern or as fully protected by CDFW; species that are Ranked 1 or 2 by the California Native Plant Society (CNPS), Inventory of Rare and Endangered Plants of California (CNPS 2019); or are rare plants listed in the El Dorado County Ordinance Code §130.71.030. Special-status natural communities include waters, wetlands, riparian communities, any natural community ranked S1, S2, or S3 by CDFW (2019b), and any community identified as sensitive in the El Dorado County General Plan (2004; Amended 2018).

B. Literature and Database Review

Sycamore Environmental obtained an online list from the U.S. Fish and Wildlife Service (USFWS) that identifies federal-listed species that could potentially occur in or be affected by a project in the BSA. Prior to the field survey, the California Natural Diversity Database (CNDDDB) and the California Native Plant Society (CNPS) Inventory were queried for the Shingle Springs quad and eight surrounding USGS quads to determine known records of special-status species that occur in the vicinity of the BSA. The results of database queries for USFWS and CNDDDB are in Appendix A and Appendix B, respectively. Table 1 lists the nine USGS quads evaluated.

Table 1. USGS Quads Evaluated for the Crowley TPM Project.

Pilot Hill	Coloma	Garden Valley
Clarksville	Shingle Springs	Placerville
Folsom SE	Latrobe	Fiddletown

Included in Appendix A is the online list from U.S. Fish & Wildlife Service (USFWS 2020), of federal-listed species and critical habitats that could occur in, or be affected by, activities in the project area. The list was obtained through the USFWS IPaC (Information for Planning and Consultation).

P19-0008 - CROWLEY PARCEL MAP

EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION

*Biological Resources Evaluation
Crowley Tentative Parcel Map Site Project
El Dorado County, CA*

Information on the biology, distribution, taxonomy, legal status, and other aspects of special-status species was obtained from documents on file in the Sycamore Environmental library. Standard references used for the biology and taxonomy of plants included Baldwin et al., eds. (2012). On-line references included California Native Plant Society (2020); CalPhotos (2020); Consortium of California Herbaria (CCH 2020); Jepson eFlora (2020); and Flora of North America (FNA 1993+). References pertaining to natural communities include CDFW (2019b).

Two special-status species lists produced by CDFW were also reviewed: 1) Special Vascular Plants, Bryophytes, and Lichens List (CDFW, January 2020a); and 2) State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW, January 2020b).

E. Survey Methods

1. Survey Dates and Personnel

Biological and botanical fieldwork for this BRE was conducted on 14 May 2020, by R. John Little, Ph.D., Sycamore Environmental botanist/biologist.

2. Botanical/ Biological Survey

Biological surveys conducted for this report consisted of a biologist walking through the BSA to determine if any special-status species or their habitat were present. Plant and wildlife species and natural communities were identified and recorded. Potential habitat for special-status plant species was evaluated.

The botanical survey was conducted in accordance with CDFW (2018), USFWS (2000), and CNPS (2001) botanical survey guidelines. Nomenclature and taxonomy follow Baldwin et al. (2012) and Jepson eFlora (2020). The botanical survey was floristic, meaning that every plant taxon found was identified to the taxonomic level necessary to determine rarity and listing status. Wildlife species and vegetation communities were identified and recorded. Appendix C is a list of plant and wildlife species observed in the BSA. Photographs of the BSA are in Appendix D.

The botanical survey was conducted using systematic transects through all accessible areas. All plant species observed were recorded while surveying the BSA on foot. Approximately 6 hours were spent in the field during the 14 May 2020 survey. All vascular plants found in the BSA were identified to the taxonomic level necessary to determine legal status. Plant species observed were either identified on-site or collected and identified later with the aid of a microscope and using dichotomous keys in using Baldwin et al. (2012) and/or Jepson eFlora (2020). A list of vascular plants observed in the BSA is in Appendix C. Scientific nomenclature follows Baldwin et al. (2012) or Jepson eFlora (2020).

Natural communities were identified and mapped. Vegetation in these communities was classified according to methods and vegetation alliance membership rules in *A Manual of California Vegetation, 2nd edition* (Sawyer et al. 2009). The CDFW (2019b) *California Natural Community List* was reviewed to verify vegetation rarity ranks and determine if any sensitive vegetation alliances or associations occur.

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION**

*Biological Resources Evaluation
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3. Reconnaissance Wetland Survey

In July 2019, a reconnaissance survey for potential wetlands and waters of the U.S. was conducted for a portion of proposed Parcel 2. Results of this reconnaissance survey were documented in a wetland setback analysis (Sycamore Environmental 2019). All of proposed Parcel 2 and proposed Parcel 1 were surveyed for wetlands on 14 May 2020. A formal jurisdictional delineation of wetlands and waters, using U.S. Army Corps of Engineers standards (USACE 1987; USACE 2008), was not conducted.

F. Mapping

Biological communities observed by Sycamore Environmental were mapped using aerial photographs and data collected with a Trimble TDC-100 handheld GPS unit coupled to a sub-meter accurate R-1 receiver. The aerial photo for Figures 2, 4, and 5, dated 26 August 2018, GEO I Vivid Maxar Imagery, was downloaded from ArcGis World Imagery Basemap layer service. Parcel boundaries, fence lines, and other features on Figure 2 are based on “Tentative Parcel Map of Crowley Parcel Split” by Lebeck Young Engineering, Inc. Biological community boundaries were mapped based on GPS data, field observations, and interpretation of the aerial photographs from Google Earth (Google 2020) and ESRI World Imagery. Acreages of plant communities and other features were calculated using ArcMap functions.

G. Problems Encountered and Limitations That May Influence Results

No problems were encountered that would influence results.

IV. ENVIRONMENTAL SETTING

The BSA is located in the western foothills of the Sierra Nevada Mountains, approximately 2 miles southwest of Shingle Springs, CA. Land use surrounding the BSA consists of rural residential properties and oak woodlands. The BSA is located in the Pine Hills Gabbro geologic formation within the Rescue soil series in the County’s Rare Plant Mitigation Area 1.

A. Soils

Mapped soil units in the BSA were determined using the Soil Survey of El Dorado Area (NRCS 1974). The soil mapping units in the BSA (Figure 3) are Auburn very rocky silt loam (2 to 30 percent slopes); Rescue very stony sandy loam (3 to 15 percent slopes; Rescue clay; and Rescue sandy loam, (2 to 9 percent slopes). Soil descriptions are based on the Soil Survey of El Dorado Area and official soil series descriptions (NRCS 1974; 2020).

Auburn very rocky silt loam

This soil type consists of well-drained soils which formed from weathering of basic igneous or metamorphic rocks. The Auburn soil series has typical slopes of 2 to 30 percent and rock outcrops are common, covering 5 to 25 percent of the surface. The depth to the restrictive feature is 14 to 18 inches. A typical profile has reddish brown (5YR 4/4) to yellowish red (5YR 5/6) silt loam from 0 to 9 inches, yellowish red (5YR 4/6) silt loam from 9 to 14 inches, very pale brown (10YR 7/4) weathered

P19-0008 - CROWLEY PARCEL MAP
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amphibolite schist with colloidal stains of reddish brown (2.5 YR 4/4) from 14 to 24 inches in dry soils. Permeability is moderately high. Surface runoff is slow to medium.

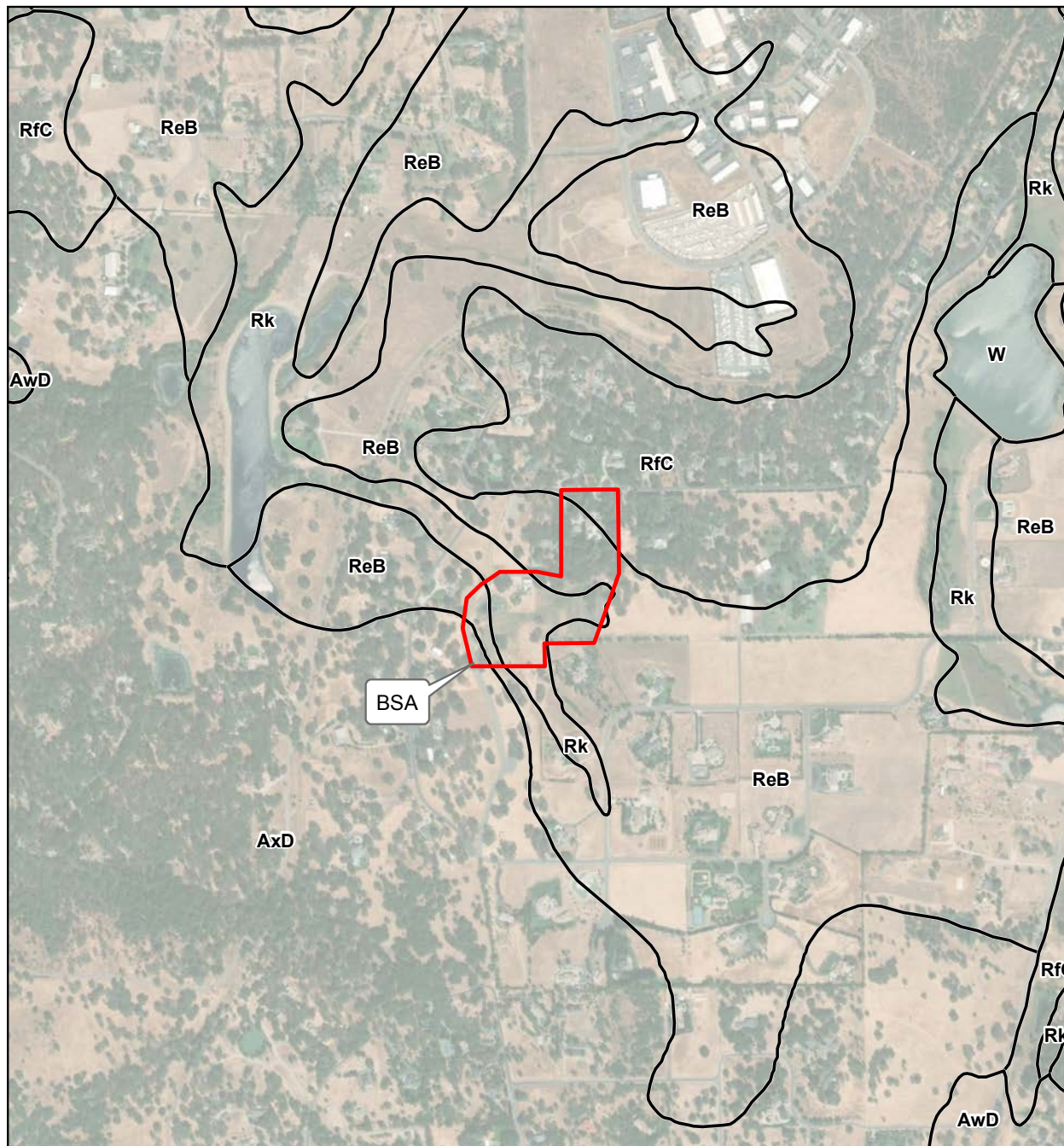
Rescue

Three Rescue soil map units occur within the BSA: Rescue very stony sandy loam (RfC); Rescue clay, clayey variant (Rk); and Rescue sandy loam (ReB). The Rescue soil series has typical slopes of 2 to 15 percent. The Rescue series consists of well-drained soils underlain by weathered basic rock at a depth beginning at 48 inches for Rescue clay soils and at 66 inches for Rescue very stony sandy loam and Rescue sandy loam soils. A typical profile for Rescue soils contains dark reddish brown (5YR 3/4) sandy loam from 0 to 10 inches, yellowish red (5YR 3/6) heavy sandy loam from 10 to 14 inches, dark red (2.5YR 3/6) sandy clay loam from 14 to 26 inches, variegated reddish brown and reddish yellow (5YR 4/4, 6/6) heavy sandy loam from 26 to 34 inches, yellowish red (5YR 5/6) coarse sandy loam from 34 to 55 inches, and strong brown (7.5YR 5/6) loamy coarse sand from 55 to 66 inches in moist soils. Permeability is moderately slow, surface runoff is slow to medium, and the erosion hazard is slight to moderate.

B. Weather and Climate Conditions



Fieldwork for this BRE was conducted on 14 May 2020. Historic average precipitation for the nearby Placerville gauge from 1 May through 30 April is 38.65 inches (CDEC 2020). From 1 May 2019 through 30 April 2020, the Placerville gauge reported 30.67 inches of precipitation. Precipitation preceding the survey was 79% of normal at the Placerville Gauge for the period of 1 May 2019 to 30 April 2020. The BSA had wetter than average hydrological conditions in the water year preceding the survey.

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION**



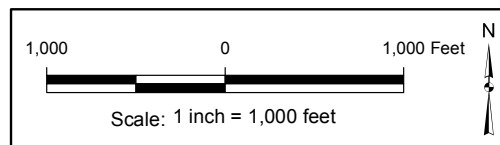
Crowley Tentative Parcel Map Project
El Dorado County, CA
20 May 2020

Figure 3. Soils Map

-  Biological Study Area (BSA)
-  Soil Boundary

Soil Mapping Unit
Symbol Name

- AxD Auburn very rocky silt loam,
2 to 30 percent slopes
- RfC Rescue very stony sandy loam,
3 to 15 percent slopes
- Rk Rescue clay, clayey variant
- ReB Rescue sandy loam,
2 to 9 percent slopes



SYCAMORE
Environmental
Consultants, Inc.

Soil Survey Geographic (SSURGO) database for
El Dorado Area, California, USDA, NRCS
URL: <http://SoilDataMart.nrcs.usda.gov/>

Aerial Photo: 26 August 2018
GEO1 Vivid Maxar Imagery
ArcGIS World Imagery Basemap layer

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION**

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C. Biological Communities

Biological communities are defined by species composition and relative abundance. Biological communities correlate where applicable with the list of California terrestrial natural communities recognized by CDFW (2019b). Biological communities are mapped in Figure 4; their acreages are in Table 2. Descriptions of biological communities in the BSA are presented below.

Table 2. Biological Communities in the BSA

Biological Community	Vegetation Alliances and CDFW Alliance Codes ¹	Rarity Rank ₂	Acreage ³
Irrigated pasture (including Seep/wetland (0.40 ac))	--	--	8.12
Interior live oak woodland	<i>Quercus wislizeni</i> - <i>Quercus douglasii</i> / herbaceous Alliance (CDFW 71.080.44)	G4 S4	3.69
Pond and fringe wetland	--		0.40
Intermittent channel	--	--	0.10
Ephemeral channel	--	--	0.01
Other	--	--	
Residential Housing/ Infrastructure	--	--	3.60
Total:			15.92

¹ Vegetation alliances based on descriptions and classification methods in Sawyer et al. (2009). Alliance codes from CDFW (2019b). Some communities may lack recognized vegetation alliances or contain multiple alliances.

² Rarity ranking follows NatureServe’s Heritage Methodology and is based on degree of imperilment as measured by rarity, trends, and threats. State (S) ranks of 1-3 are considered highly imperiled by CDFW (2019b). Nonnative vegetation has no rarity rank.

³ Acreages were calculated using ArcMap functions.

1. Interior live Oak Woodland

The dominant native tree species in the woodland community on Parcel 1 include interior live oak (*Quercus wislizeni*) and blue oak (*Quercus douglasii*). For convenience, this community is referred to as Interior live oak woodland because from an aerial photo the dense canopy of these trees suggests a natural community. However, a residence and other structures have been constructed beneath the canopy and among the native trees. In addition, the forest floor is landscaped with lawns, nonnative trees, and nonnative shrubs (Photo >). There are few areas of ‘bare dirt.’ Thus, the area mapped as interior live oak woodland, is not an intact community.

P19-0008 - CROWLEY PARCEL MAP

EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION

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Nonnative tree species include Himalayan white pine (*Pinus wallichiana*), Japanese maple, *Prunus* sp., and *Schinus* sp. (pepper tree). Although Coast redwood (*Sequoia sempervirens*), a native species, is also present, it is used in a horticultural setting. Nonnative shrubs include *Agapanthus*, *Cycas revoluta*, Iris, *Nerium oleander*, and others. Concrete and unpaved roads are also present beneath the canopy of the interior live oak and blue oak trees. Interior live oak woodland is not a CDFW sensitive community (CDFW 2019b).

2. Irrigated Pasture including Seep/Wetland

A total of 8.12 ac of irrigated pasture occurs in the BSA (Figure 4; Appendix D, Photo >). This habitat is present on most of the southern half of proposed Parcel 1 and most of proposed Parcel 2. A seep/wetland area, occupying about 0.40 ac, occurs in the area of irrigated pasture (Figure 4). Irrigated pasture is not a sensitive natural community.

Native and nonnative species in this community include annual and perennial grasses such as annual beard grass (*Polypogon monspeliensis*), common velvet grass (*Holcus lanatus*), fowl manna grass (*Glyceria elata*), hare barley (*Hordeum murinum* ssp. *leporinum*), and Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*).

Native and nonnative annual and perennial herbaceous species include Baltic rush (*Juncus balticus* ssp. *ater*), buttercup (*Ranunculus muricatus*), common monkeyflower (*Erythranthe guttata*), flax (*Linum bienne*), little hop clover (*Trifolium dubium*), rough cat's-ear (*Hypochaeris radicata*), subterranean clover (*Trifolium subterraneum*), and toad rush (*Juncus bufonius*).

3. Residential Housing/Infrastructure

Residential housing/infrastructure occupies 3.6 ac in the BSA, which includes paved and dirt roads, two residences (one on each parcel), a modular home, garage, concrete driveways, various outbuildings including barns, sheds, a shop, and horse stable. Paved roads include portions of Chibra Court and Milton Ranch Road.

4. Pond and Fringe Wetland

A manmade pond is located in the western portion of proposed Parcel 2 (Figure 4; Photo >). A narrow band of fringe wetland occurs around the pond (total of 0.40 ac for pond and fringe wetland). The pond was formed by berms constructed around the pond. An unnamed, intermittent channel (Intermittent Channel 2 on Figure 4), fills the pond during the rainy season. Overflow water exits the pond via a narrow channel at the southwest corner of the pond, where it flows into Intermittent Channel 2 (Figure 4).

Vegetation in the fringe wetland includes Baltic rush (*Juncus balticus* ssp. *ater*), cattail (*Typha* sp.), pennyroyal (*Mentha pulegium*), spikerush (*Eleocharis macrostachya*), water cress (*Nasturtium officinale*), and water primrose (*Ludwigia peploides* ssp. *montevidensis*).

P19-0008 - CROWLEY PARCEL MAP
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5. Channels; Ephemeral and Intermittent

Two channels, numbered 1 and 2 on Figure 4, occur in the BSA, one on each parcel. Channel 1 is an ephemeral channel south of the residence on Parcel 1 that flows through the parcel from east to west. This channel averages 1.5 ft wide and is 447 ft long. Portions of this channel flow through three culverts. The bed and banks of this channel are not vegetated.

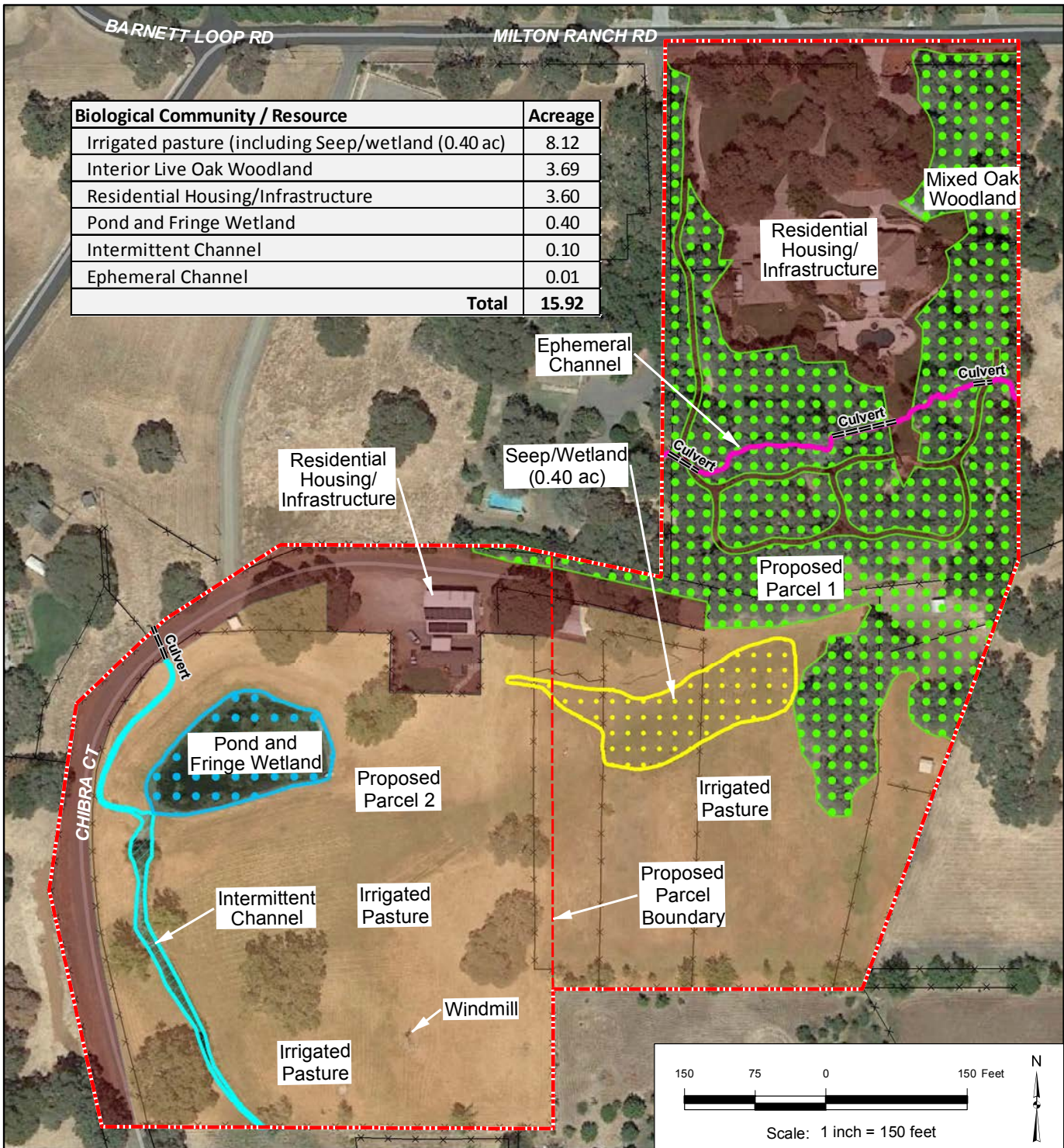
Channel 2, a tributary to Deer Creek, is an intermittent channel in proposed Parcel 2 that flows from south to north along the western boundary of the BSA and west of the pond. Channel 2 enters Parcel 2 at its southern boundary. It flows out of Parcel 2 in a culvert under Chibra Court road. Channel 2 averages 7.1 ft wide and is 600 ft long. Channel 2 appears on the Shingle Springs USGS topographic quad map as a dashed line indicating that flows are intermittent.

On 14 May 2020, water was standing in some portions of the channel south of the pond, but was dry west of the pond. During the July 2019 survey, Channel 2 was dry (Sycamore Environmental 2019). Vegetation present in Channel 2 south of the pond included cattail (*Typha* sp.), hedge-nettle (*Stachys ajugoides*), Nebraska sedge (*Carex nebrascensis*), pennyroyal (*Mentha pulegium*), red willow (*Salix laevigata*), and water cress (*Nasturtium officinale*).

D. The Existing Level of Disturbance

The BSA contains residential buildings, a garage, shops, barns, and a pool. All or part of the pastures are mowed, periodically plowed, and have been irrigated for at least 22 years. The pastures are divided into foraging areas separated by wire fences. Horses and alpacas graze in the pastures. All ground in proposed Parcel 1 is landscaped with various horticultural species including lawns, shrubs, and trees.

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION**



Crowley Tentative Parcel Map Project
El Dorado County, CA
8 June 2020

- Biological Study Area (15.92 ac)
- Proposed Parcel Boundary
- Pond and Fringe Wetland
- Intermittent Channel
- Ephemeral Channel
- Seep/ Wetland (0.40 ac)
- Developed
- Irrigated Pasture
- Interior Live Oak Woodland

✕—✕ Existing Fence



Basemap: Tentative Parcel Map of
Crowley Parcel Split by Lebeck •
Young Engineering, Inc
CAD File: Crowley_TM 2020-05-22.dwg
(Rev'd: 22 May 2020)

Aerial Photo: 26 August 2018
GEO1 Vivid Maxar Imagery
ArcGIS World Imagery Basemap layer

Figure 4.
Biological Resources Map

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION**

*Biological Resources Evaluation
Crowley Tentative Parcel Map Site Project
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V. BIOLOGICAL RESOURCES IN THE BIOLOGICAL STUDY AREA

A. Determination of Special-Status Species in the Biological Study Area

Field surveys and file data from USFWS, CNDDDB, and CNPS were used to determine the special-status species and communities that could occur in the BSA (Appendix A and B). Special-status species for which suitable habitat is present in the BSA are discussed below. Special-status species and communities for which suitable habitat is not present, or whose distributional limits preclude the possibility of their occurrence in the BSA, are not discussed.

Table 3. Special-Status Species and Natural Communities.

Special-Status Species	Common Name	Federal Status ^a	State Status ^a & other codes ^b	Source ^c	Habitat Present? / Species Observed?
Reptiles					
<i>Clemmys marmorata</i>	Northwestern pond turtle	--	SSC	2	Yes/No
Birds					
Nesting Birds (MBTA or CA regulated)		--	--	3	Yes/No
Plants / CNPS List ^b					
<i>Balsamorhiza macrolepis</i>	Big-scale balsamroot	--	--/1B.2	2	Yes/No
<i>Calystegia stebbinsii</i>	Stebbins' morning-glory	E	E/1B.1	1, 2	Yes/No
<i>Calystegia vanzuukiae</i>	Van Zuuk's morning-glory	--	--/1B.3	2	Yes/No
<i>Carex xerophila</i>	Chaparral sedge	--	--/1B.2	2	Yes/No
<i>Ceanothus roderickii</i>	Pine Hill ceanothus	E	R/1B.1	1, 2	Yes/No
<i>Chlorogalum grandiflorum</i>	Red Hills soaproot	--	--/1B.2	2	Yes/No
<i>Eryngium pinnatisectum</i>	Tuolumne button-celery	--	--/1B.2	2	Yes/No
<i>Galium californicum</i> ssp. <i>sierrae</i>	El Dorado bedstraw	E	R/1B.2	1, 2	Yes/No
<i>Wyethia reticulata</i>	El Dorado County mule ears	--	--/1B.2	2	Yes/No
Natural Communities					
Interior live oak woodland		--	--	3	Yes/Yes
Wetlands and Waters		--	--	3	Yes/Yes

^a **Listing Status:** Federal status determined from USFWS letter. State status determined from CDFW (2020b). Codes used in table above are: **E** = Endangered; **T** = Threatened; **P** = Proposed; **C** = Candidate; **R** = California Rare; * = Possibly extinct.

^b **Other Codes:** Other codes determined from USFWS letter; CDFW (2020a, b). Codes used in table are as follows:
SSC = CDFW Species of Special Concern; **FP** = CDFW Fully Protected; **Prot** = CDFW Protected; **CH** = Critical habitat designated.
CNPS List (plants only): **1A** = Presumed Extinct in CA; **1B** = Rare or Endangered (R/E) in CA and elsewhere; **2** = R/E in CA and more common elsewhere; **3** = Need more information; **4** = Plants of limited distribution
CNPS List Decimal Extensions: **.1** = Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat); **.2** = Fairly endangered in CA (20-80% of occurrences threatened); **.3** = Not very endangered in CA (< 20% of occurrences threatened or no current threats known).

^c **Source:** **1** = USFWS letter. **2** = CNDDDB. **3** = Observed or included by Sycamore Environmental.

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B. Evaluation of Special-Status Natural Communities

Waters and Wetlands

The pond and fringe wetland, the seep/wetland in the irrigated pasture, and the 2 channels are potential waters of the U.S. The pond impounds water flowing in Channel 2. Intermittent Channel 2 is a tributary to Deer Creek and is likely a waters of the U.S. Impoundments of waters of the U.S. are by definition also waters of the U.S. (33 CFR § 328.3 (a)). These features are shown on Figure 4.

County Zoning Code §130.30.030(G) establishes standards for avoidance and minimization of impacts to wetlands and sensitive riparian habitat as provided in General Plan Policies 7.3.3.4 and 7.4.2.5. The standards apply to most waterbodies, wetlands, and riparian areas.

C. Evaluation of Special-Status Wildlife Species

1. Reptiles

Northwestern pond turtle (*Clemmys marmorata*)

HABITAT AND BIOLOGY: Over the years, the genus name for pond turtles in CA has fluctuated between *Clemmys*, *Actinemys*, and *Emys*. Northwestern pond turtle is a CDFW Species of Special Concern. The western pond turtle prefers aquatic habitats with abundant vegetative cover and exposed basking sites such as logs. Their color may appear olive, dark brown or black with darker spots or dashes. Western pond turtles may live 30-40 years and attain a shell length of seven inches. They may take up to eight years to reach sexual maturity. Mating occurs in April or May, after which females build nests along wetland margins or in adjacent uplands. The female will travel over 400 meters to find suitable nest sites in upland areas with southern exposure away from flood-prone areas. In late spring, one to 13 eggs are laid in a shallow hole at least 10 cm deep and covered with organic, silty soil. Hatchlings emerge in approximately 12 weeks. They are associated with permanent or nearly permanent water in a wide variety of habitat types, normally in ponds, lakes, streams, irrigation ditches or permanent pools along intermittent streams. They are omnivorous generalists and opportunistic predators whose prey includes small insects, aquatic invertebrates, fish, frogs, snakes, and small mammals. They also eat aquatic plant material (Stebbins 1985) and carrion (observations by Sycamore Environmental).

RANGE: Throughout northern CA west of the Sierra Nevada (Stebbins 1985).

HABITAT IN THE BSA: The pond on proposed Parcel 2 provides foraging habitat for the northwestern pond turtle. Floating (e.g., pondweed; *Potamogeton* sp.) and emergent wetland vegetation provide potential cover and food.

2. Nesting Birds Listed Under the MBTA or Regulated by CA Fish and Game Code

STATUS: CA Fish and Game Code §3503 protects most birds and their nests. CA Fish and Game Code §3503.5 further protects all birds in the orders Falconiformes and Strigiformes (collectively known as birds of prey). Birds of prey include raptors, falcons, and owls. The federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711) also protects most birds and their nests, including most non-migratory birds in California. The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any bird listed in 50 CFR Part 10 including feathers or other parts, nests, eggs, or products, except

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as allowed by implementing regulations. Any disturbance that causes direct injury, death, nest abandonment, or forced fledging of migratory birds, is restricted under the MBTA. Any removal of active nests during the breeding season or any disturbance that results in the abandonment of nestlings is considered a 'take' of the species under federal law.

HABITAT PRESENT IN THE BSA: The tall native and nonnative trees in the BSA provide habitat for birds listed under the Migratory Bird Treaty Act (MBTA) and/or regulated by the CA Fish and Game Code. Birds may also nest in shrubs, on the ground, and on structures within and adjacent to the BSA.

DISCUSSION: No active bird nests were observed in the BSA during the biological survey on 14 May 2020. For most bird species the nesting season is considered to be from 15 February to 31 August.

D. Evaluation of Special-Status Plant Species

Nine (9) special-status plant species were identified as having potential to occur in the BSA. These are discussed below. No special-status species were observed in the BSA during the protocol botanical survey conducted on 14 May 2020, during the evident and identifiable period. There are no known records of special-status species in the BSA. There are no rock outcrops, serpentine or volcanic soils, or chaparral habitat in the BSA.

Big scale balsamroot (*Balsamorhiza macrolepis*)

HABITAT AND BIOLOGY: Big-scale balsamroot is a perennial herbaceous species found on open grassy or rocky slopes and valleys in chaparral, cismontane woodland, and Valley and foothill grassland, sometimes on serpentinite soils, from 170 to 6,550 feet. It blooms March through July (CNPS 2020; Jepson eFlora 2020).

RANGE: This species is endemic to California. Big-scale balsamroot is known from Alameda, Amador, Butte, Colusa, El Dorado, Lake, Mariposa, Napa, Placer, Santa Clara, Shasta, Solano, Sonoma, Tehama, and Tuolumne counties (CNPS 2020).

KNOWN RECORDS: There is one CNDDDB record for big-scale balsamroot in the nine-quad area surrounding the BSA. This record (Occurrence #14), is 13.7 mi NW of the BSA on the Pilot Hill quad.

HABITAT PRESENT IN THE BSA: Open areas in the Interior oak woodland provide potential habitat for big-scale balsamroot.

DISCUSSION: Big-scale balsamroot was not observed in the BSA during the botanical survey conducted in May 2020, during the evident and identifiable period.

Stebbins' morning-glory (*Calystegia stebbinsii*)

HABITAT AND BIOLOGY: Stebbins' morning-glory is a perennial rhizomatous herb found in serpentine or gabbroic soils in chaparral openings and cismontane woodland from 600 to 2,400 feet. It blooms April through July (CNPS 2020; Jepson eFlora 2020).

RANGE: This species is endemic to California. Stebbins' morning-glory is known from El Dorado and Nevada counties (CNPS 2020).

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KNOWN RECORDS: There are 8 CNDDDB records for Stebbins' morning-glory in the nine-quad area surrounding the BSA. The closest (Occurrence #24), is 0.8 mile northeast of the BSA on the Shingle Springs quad.

HABITAT PRESENT IN THE BSA: Open areas in the Interior oak woodland and portions of the irrigated pasture provide potential habitat for Stebbins' morning-glory.

DISCUSSION: *Convolvulus arvensis* (bindweed) was observed in the irrigated pasture. Stebbins' morning-glory was not observed during the botanical survey conducted in May 2020, during the evident and identifiable period.

Van Zuur's morning-glory (*Calystegia vanzuukiae*)

HABITAT AND BIOLOGY: Van Zuur's morning-glory is a perennial rhizomatous herb found in gabbro or serpentine soils in chaparral or cismontane woodland from 1,640 to 3,870 feet. It blooms May through August (CNPS 2020).

RANGE: This species is endemic to California. Van Zuur's morning-glory is known from El Dorado and Placer counties (CNPS 2020).

KNOWN RECORDS: There is one CNDDDB record of Van Zuur's morning-glory within the nine-quad area surrounding the BSA. This record (Occurrence #1) is approximately 17.4 miles northeast of the BSA in the Traverse Creek botanical area in El Dorado National Forest.

HABITAT PRESENT IN THE BSA: Open areas in the Interior oak woodland and portions of the irrigated pasture provide potential habitat for Van Zuur's morning-glory.

DISCUSSION: *Convolvulus arvensis* (bindweed) was observed in the irrigated pasture. Van Zuur's morning-glory was not observed during the botanical survey conducted in May 2020, during the evident and identifiable period.

Chaparral sedge (*Carex xerophila*)

HABITAT AND BIOLOGY: Chaparral sedge is a newly described perennial cespitose herb known from serpentine or gabbro soils (Zika et al. 2014). It occurs in uplands in full sun to partial shade, in open forest or chaparral, from 1,475 to 2,525 feet. It blooms March through June (CNPS 2020; Jepson eFlora 2020).

RANGE: This species is endemic to California. Chaparral sedge is known from Butte, El Dorado, Nevada, and Yuba counties (CNPS 2019).

KNOWN RECORDS: There are 7 CNDDDB records of chaparral sedge in the nine-quad area surrounding the BSA. The closest (Occurrence #1), occurs about 1.2 miles north of the BSA, along both sides of Highway 50 between Shingle springs and Cameron Park.

HABITAT PRESENT IN THE BSA: Openings in the Interior live oak woodland provide potential habitat for chaparral sedge.

DISCUSSION: Chaparral sedge was not observed in the BSA during the botanical survey conducted in May 2020, during the evident and identifiable period.

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Pine Hill ceanothus (*Ceanothus roderickii*)

HABITAT AND BIOLOGY: Pine Hill ceanothus is an evergreen shrub found in serpentine or gabbroic soils in chaparral and cismontane woodland from 850 to 2,100 feet. It blooms April through July (CNPS 2019); March through June (Jepson eFlora 2019). Pine Hill ceanothus is a perennial evergreen shrub that is evident and identifiable year-round.

RANGE: Pine Hill ceanothus is endemic to California. It is known from fewer than 10 occurrences in El Dorado County (CNPS 2020).

KNOWN RECORDS: There are nine CNDDDB records for Pine Hill ceanothus in the nine-quad area surrounding the BSA. The closest record (Occurrence #1), is 1 mile north of the BSA along both sides of Highway 50 between Shingle springs and Cameron Park.

HABITAT PRESENT IN THE BSA: Openings in the Interior live oak woodland provides potential habitat for Pine Hill ceanothus.

DISCUSSION: Pine Hill ceanothus was not observed in the BSA during the botanical survey conducted in May 2020, during the evident and identifiable period.

Red Hills soaproot (*Chlorogalum grandiflorum*)

HABITAT AND BIOLOGY: Red Hills soaproot is a perennial bulbiferous herb found in serpentine or gabbroic soils in chaparral, cismontane woodland, and lower montane coniferous forest from 800 to 3,840 feet. It blooms May through June (CNPS 2020; Jepson eFlora 2020).

RANGE: Red Hills soaproot is endemic to California. It is known from Amador, Calaveras, El Dorado, Placer, and Tuolumne counties (CNPS 2020).

KNOWN RECORDS: There are 14 CNDDDB records for Red Hills soaproot in the nine-quad area surrounding the BSA. The closest (Occurrence # 32), is 0.8 mile northeast of the BSA. The plants were growing on Rescue soils in chaparral habitat.

HABITAT PRESENT IN THE BSA: Open areas in the Interior oak woodland and portions of the irrigated pasture provide potential habitat for Red Hills soaproot.

DISCUSSION: Red Hills soaproot was not found in the BSA during the May 2020 biological survey conducted during the evident and identifiable period for this species.

Tuolumne button-celery (*Eryngium pinnatisectum*)

HABITAT AND BIOLOGY: An annual to perennial herb found in mesic cismontane woodland, lower montane coniferous forest, and vernal pools from 230 to 3,000 feet in elevation. Blooms May through August (CNPS 2020).

RANGE: Amador, Calaveras, Sacramento, Sonoma and Tuolumne Counties. (CNPS 2020).

KNOWN RECORDS: There are > records of Tuolumne button-celery in the nine-quad area surrounding the BSA. The closest (Occurrence #17) is 9.6 miles southwest of the BSA.

HABITAT PRESENT IN THE BSA: The Seep/wetland habitat in the Irrigated Pasture community provide marginal habitat for this species.

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DISCUSSION: Tuolumne button-celery was not found in the BSA during the May 2020 biological survey conducted during the evident and identifiable period for this species. The Seep/wetland area is foraged on by horses and alpacas and is periodically mowed.

El Dorado bedstraw (*Galium californicum* ssp. *sierra*)

HABITAT AND BIOLOGY: El Dorado bedstraw is a perennial herb found in open pine, oak forests, and chaparral from 330 to 1,640 ft. Sometimes this plant is associated with gabbro soils. El Dorado bedstraw blooms March through July (Baldwin et al. 2012, CNPS 2020).

RANGE: El Dorado bedstraw is known from El Dorado and Placer counties (CNPS 2020).

KNOWN RECORDS: There are 17 CNDDDB records for El Dorado bedstraw in the nine-quad area surrounding the BSA. The closest (Occurrence #18), is 1.6 miles northwest of the BSA. Fifty plants were observed in a forest on flat ground with Gabbro soils.

HABITAT PRESENT IN THE BSA: The Interior oak woodland provides potential habitat for El Dorado bedstraw.

DISCUSSION: El Dorado bedstraw was not found in the BSA during the May 2020 biological survey conducted during the evident and identifiable period for this species.

El Dorado County mule ears (*Wyethia reticulata*)

HABITAT AND BIOLOGY: El Dorado County mule ears is a perennial herb that grows in chaparral, cismontane woodlands, and lower montane coniferous forest. Sometimes this species is associated with clay or gabbro soils. El Dorado County mule ears blooms April to August (Baldwin et al. 2012, CNPS 2020).

RANGE: El Dorado County mule ears is known from El Dorado, Placer, Sacramento and Yuba counties (CNPS 2020).

KNOWN RECORDS: There are 25 CNDDDB records for El Dorado County mule ears in the nine-quad area surrounding the BSA. The closest (Occurrence #28), is approximately 0.7 mile northeast of the BSA.

HABITAT PRESENT IN THE BSA: The Interior oak woodland provides potential habitat for El Dorado County mule ears.

DISCUSSION: El Dorado County mule ears was not found in the BSA during the May 2020 biological survey conducted during the evident and identifiable period for this species.

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VI. LITERATURE CITED

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VII. PREPARERS

R. John Little, Ph.D., Botany, Claremont Graduate School, Claremont, CA. Over 30 years' experience managing and conducting environmental projects involving impact assessment and preparation of numerous NEPA/CEQA compliance documents, Biological Assessments, and Caltrans Natural Environmental Studies. Experience includes conducting special-status plant and wildlife species surveys, jurisdictional wetland delineations, general biological surveys, permitting and biological report preparation. Dr. Little is a trained wetland delineator and an ESA certified Senior Ecologist. He holds a California Department of Fish and Wildlife Rare, Threatened and Endangered Plant Voucher Collecting Permit (2081(a)-16-021-V), and is an authorized individual on the CDFW Scientific Collecting Permit (SC-7617).

Responsibilities: Botanical and biological survey, plant identification, report preparation.

Kate J. Gazzo, M.S., Environmental Management, University of San Francisco, San Francisco, CA. Over 7 years of experience as an ecologist. Ms. Gazzo conducts habitat assessments, natural resource inventories, surveys for special-status wildlife, and wetland delineations. She assists with preparation of biological resource reports, permit applications, mitigation plans, and other documents used in CEQA/NEPA review. She has experience with ecological functional assessments, restoration and mitigation planning, land conservation, ecosystem service valuations, invasive species management, and water quality assessments.

Responsibilities: Report preparation.

Aramis Respoll, GIS Analyst/ CAD Operator. Over 20 years' experience in drafting and spatial analysis using AutoCAD map and ArcGIS for public and private projects. He prepares figures for biological and permitting documents such as project location maps, aerial photograph exhibits, biological resource maps, CNDDDB proximity maps, wetlands/waters delineation maps, impact analysis maps, tree location maps and other supporting graphics. Mr. Respoll provides geospatial analysis and support for projects involving geodesy, hydrology, watershed studies, project impact analysis, CNDDDB species, and critical habitat and mitigation information. Primary experience evolved from conventional surveying and civil engineering practices to advanced GPS and GIS based technology.

Responsibilities: Figure preparation and spatial analysis.

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APPENDIX A

USFWS Species List

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5/14/2020

IPaC: Explore Location

IPaC

U.S. Fish & Wildlife Service

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

El Dorado County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

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Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
2. [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.

The following species are potentially affected by activities in this location:

Amphibians

NAME

STATUS

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IPaC: Explore Location

California Red-legged Frog *Rana draytonii* Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/2891>

Fishes

NAME

STATUS

Delta Smelt *Hypomesus transpacificus* Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/321>

Flowering Plants

NAME

STATUS

El Dorado Bedstraw *Galium californicum* ssp. *sierrae* Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/5209>

Layne's Butterweed *Senecio layneae* Threatened

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4062>

Pine Hill Ceanothus *Ceanothus roderickii* Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/3293>

Pine Hill Flannelbush *Fremontodendron californicum* ssp. *decumbens* Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4818>

Stebbins' Morning-glory *Calystegia stebbinsii* Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/3991>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

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IPaC: Explore Location

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

MIGRATORY BIRD INFORMATION IS NOT AVAILABLE AT THIS TIME

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

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What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

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EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION

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Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

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This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

[PEM1C](#)

FRESHWATER POND

[PABHh](#)

RIVERINE

[R4SBC](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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APPENDIX B

**CNDDDB Summary Report and
CNPS Inventory Query**

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION**



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS OR Pilot Hill (3812171) OR Coloma (3812078) OR Garden Valley (3812077) OR Clarksville (3812161) OR Placerville (3812067) OR Folsom SE (3812151) OR Latrobe (3812058) OR Fiddletown (3812057)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Accipiter gentilis</i> northern goshawk	ABNKC12060	None	None	G5	S3	SSC
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
<i>Allium jepsonii</i> Jepson's onion	PMLIL022V0	None	None	G2	S2	1B.2
<i>Ammodramus savannarum</i> grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
<i>Andrena blennospermatis</i> Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S2	
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G5	S3	SSC
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Arctostaphylos nissenana</i> Nissenan manzanita	PDERI040V0	None	None	G1	S1	1B.2
<i>Ardea alba</i> great egret	ABNGA04040	None	None	G5	S4	
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Atractelmis wawona</i> Wawona riffle beetle	IICOL58010	None	None	G1G3	S1S2	
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
<i>Banksula californica</i> Alabaster Cave harvestman	ILARA14020	None	None	GH	SH	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<i>Buteo regalis</i> ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<i>Calystegia stebbinsii</i> Stebbins' morning-glory	PDCON040H0	Endangered	Endangered	G1	S1	1B.1

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION**



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Calystegia vanzuukiae</i> Van Zuur's morning-glory	PDCON040Q0	None	None	G2Q	S2	1B.3
<i>Carex cyrtostachya</i> Sierra arching sedge	PMCYP03M00	None	None	G2	S2	1B.2
<i>Carex xerophila</i> chaparral sedge	PMCYP03M60	None	None	G2	S2	1B.2
<i>Ceanothus roderickii</i> Pine Hill ceanothus	PDRHA04190	Endangered	Rare	G1	S1	1B.1
<i>Central Valley Drainage Hardhead/Squawfish Stream</i> Central Valley Drainage Hardhead/Squawfish Stream	CARA2443CA	None	None	GNR	SNR	
<i>Chlorogalum grandiflorum</i> Red Hills soaproot	PMLIL0G020	None	None	G3	S3	1B.2
<i>Clarkia biloba ssp. brandegeae</i> Brandegee's clarkia	PDONA05053	None	None	G4G5T4	S4	4.2
<i>Cosumnoperla hypocrena</i> Cosumnes stripetail	IIPLE23020	None	None	G2	S2	
<i>Crocانthemum suffrutescens</i> Bisbee Peak rush-rose	PDCIS020F0	None	None	G2?Q	S2?	3.2
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Erethizon dorsatum</i> North American porcupine	AMAFJ01010	None	None	G5	S3	
<i>Eryngium pinnatisectum</i> Tuolumne button-celery	PDAPIOZ0P0	None	None	G2	S2	1B.2
<i>Fremontodendron decumbens</i> Pine Hill flannelbush	PDSTE03030	Endangered	Rare	G1	S1	1B.2
<i>Galium californicum ssp. sierrae</i> El Dorado bedstraw	PDRUB0N0E7	Endangered	Rare	G5T1	S1	1B.2
<i>Haliaeetus leucocephalus</i> bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
<i>Horkelia parryi</i> Parry's horkelia	PDROS0W0C0	None	None	G2	S2	1B.2
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
<i>Lasionycteris noctivagans</i> silver-haired bat	AMACC02010	None	None	G5	S3S4	
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION**



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Myotis yumanensis</i> Yuma myotis	AMACC01020	None	None	G5	S4	
<i>Oncorhynchus mykiss irideus pop. 11</i> steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
<i>Packera layneae</i> Layne's ragwort	PDAST8H1V0	Threatened	Rare	G2	S2	1B.2
<i>Pekania pennanti</i> fisher - West Coast DPS	AMAJF01021	None	Threatened	G5T2T3Q	S2S3	SSC
<i>Phrynosoma blainvillii</i> coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<i>Sagittaria sanfordii</i> Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
<i>Spea hammondi</i> western spadefoot	AAABF02020	None	None	G3	S3	SSC
<i>Thamnophis gigas</i> giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
<i>Viburnum ellipticum</i> oval-leaved viburnum	PDCPR07080	None	None	G4G5	S3?	2B.3
<i>Wyethia reticulata</i> El Dorado County mule ears	PDAST9X0D0	None	None	G2	S2	1B.2

Record Count: 53

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION**

5/14/2020

CNPS Inventory Results



*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

Plant List

30 matches found. [Click on scientific name for details](#)

Search Criteria

Found in Quads 3812171, 3812078, 3812077, 3812161, 3812068, 3812067, 3812151 3812058 and 3812057;

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Allium jepsonii	Jepson's onion	Alliaceae	perennial bulbiferous herb	Apr-Aug	1B.2	S2	G2
Allium sanbornii var. congdonii	Congdon's onion	Alliaceae	perennial bulbiferous herb	Apr-Jul	4.3	S3	G4T3
Allium sanbornii var. sanbornii	Sanborn's onion	Alliaceae	perennial bulbiferous herb	May-Sep	4.2	S3S4	G4T3T4
Arctostaphylos mewukka ssp. truei	True's manzanita	Ericaceae	perennial evergreen shrub	Feb-Jul	4.2	S3	G4?T3
Arctostaphylos nissenana	Nissenan manzanita	Ericaceae	perennial evergreen shrub	Feb-Mar(Jun)	1B.2	S1	G1
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar-Jun	4.2	S4	G4
Calystegia stebbinsii	Stebbins' morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jul	1B.1	S1	G1
Calystegia vanzuukiae	Van Zuur's morning-glory	Convolvulaceae	perennial rhizomatous herb	May-Aug	1B.3	S2	G2Q
Carex cyrtostachya	Sierra arching sedge	Cyperaceae	perennial herb	May-Aug	1B.2	S2	G2
Carex xerophila	chaparral sedge	Cyperaceae	perennial herb	Mar-Jun	1B.2	S2	G2
Ceanothus fresnensis	Fresno ceanothus	Rhamnaceae	perennial evergreen shrub	May-Jul	4.3	S4	G4
Ceanothus roderickii	Pine Hill ceanothus	Rhamnaceae	perennial evergreen shrub	Apr-Jun	1B.1	S1	G1
Chlorogalum grandiflorum	Red Hills soaproot	Agavaceae	perennial bulbiferous herb	May-Jun	1B.2	S3	G3
Clarkia biloba ssp. brandegeae	Brandegee's clarkia	Onagraceae	annual herb	May-Jul	4.2	S4	G4G5T4
	streambank spring	Montiaceae	annual herb	Feb-May	4.2	S3	G5T3

P19-0008 - CROWLEY PARCEL MAP

EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION

5/14/2020

CNPS Inventory Results

<u>Claytonia parviflora ssp. grandiflora</u>	beauty							
<u>Crocanthemum suffrutescens</u>	Bisbee Peak rush-rose	Cistaceae	perennial evergreen shrub	Apr-Aug	3.2	S2?	G2?Q	
<u>Delphinium hansenii ssp. ewanianum</u>	Ewan's larkspur	Ranunculaceae	perennial herb	Mar-May	4.2	S3	G4T3	
<u>Erigeron miser</u>	starved daisy	Asteraceae	perennial herb	Jun-Oct	1B.3	S3?	G3?	
<u>Eriophyllum jepsonii</u>	Jepson's woolly sunflower	Asteraceae	perennial herb	Apr-Jun	4.3	S3	G3	
<u>Eryngium pinnatisectum</u>	Tuolumne button-celery	Apiaceae	annual / perennial herb	May-Aug	1B.2	S2	G2	
<u>Fremontodendron decumbens</u>	Pine Hill flannelbush	Malvaceae	perennial evergreen shrub	Apr-Jul	1B.2	S1	G1	
<u>Galium californicum ssp. sierrae</u>	El Dorado bedstraw	Rubiaceae	perennial herb	May-Jun	1B.2	S1	G5T1	
<u>Horkelia parryi</u>	Parry's horkelia	Rosaceae	perennial herb	Apr-Sep	1B.2	S2	G2	
<u>Lilium humboldtii ssp. humboldtii</u>	Humboldt lily	Liliaceae	perennial bulbiferous herb	May-Jul(Aug)	4.2	S3	G4T3	
<u>Packera layneae</u>	Layne's ragwort	Asteraceae	perennial herb	Apr-Aug	1B.2	S2	G2	
<u>Sagittaria sanfordii</u>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3	
<u>Trichostema rubisepalum</u>	Hernandez bluecurls	Lamiaceae	annual herb	Jun-Aug	4.3	S4	G4	
<u>Viburnum ellipticum</u>	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	May-Jun	2B.3	S3?	G4G5	
<u>Wyethia reticulata</u>	El Dorado County mule ears	Asteraceae	perennial herb	Apr-Aug	1B.2	S2	G2	

Suggested Citation

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Questions and Comments

rareplants@cnps.org

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**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION**

*Biological Resources Evaluation
Crowley Tentative Parcel Map Site Project
El Dorado County, CA*

APPENDIX C

Plant and Wildlife Species Observed

14 May 2020

Family	Scientific Name¹	Common Name	N/I²	Cal-IPC³
GYMNOSPERMS				
Cupressaceae	<i>Sequoia sempervirens</i> *	Coast redwood	N	
Cycadaceae	<i>Cycas revoluta</i> *	Sago palm	I	
Pinaceae	<i>Pinus wallichiana</i> *	Himalayan Pine	I	
EUDICOTS				
Amaranthaceae	<i>Amaranthus</i> sp.		--	
Anacardiaceae	<i>Schinus</i> sp.*	Pepper tree	I	
Apiaceae	<i>Torilis arvensis</i>	Tall sock-destroyer	I	Moderate
Apocynaceae	<i>Nerium oleander</i> *	Common oleander	I	
Asteraceae	<i>Cirsium vulgare</i>	Bull thistle	I	Moderate
	<i>Hypochaeris radicata</i>	Rough cat's-ear	I	Moderate
	<i>Pseudognaphalium luteoalbum</i>	Cudweed	I	
	<i>Psilocarphus tenellus</i>	Slender woolly-marbles	N	
	<i>Sonchus asper</i> ssp. <i>asper</i>	Prickly sow thistle	I	
	<i>Sonchus oleraceus</i>	Common sow thistle	I	
	<i>Taraxacum officinale</i>	Common dandelion	I	
Brassicaceae	<i>Capsella bursa-pastoris</i>	Shepherd's purse	I	
	<i>Cardamine oligosperma</i>	Bitter-cress	N	
	<i>Lepidium nitidum</i>	Peppergrass	N	
	<i>Nasturtium officinale</i> (Syn. <i>Rorippa nasturtium-aquaticum</i>)	Water cress	N	
Caryophyllaceae	<i>Silene gallica</i>	Small-flower catchfly	I	
	<i>Stellaria media</i>	Common chickweed	I	
Chenopodiaceae	<i>Chenopodium album</i>	Lamb's quarters	I	
Convolvulaceae	<i>Convolvulus arvensis</i>	Bindweed	I	
Fabaceae	<i>Cercis occidentalis</i>	Western redbud	N	
	<i>Lotus corniculatus</i>	Bird's-foot trefoil	I	
	<i>Medicago polymorpha</i>	California burclover	I	Limited
	<i>Trifolium dubium</i>	Little hop clover	I	
	<i>Trifolium glomeratum</i>	Clustered clover	I	
	<i>Trifolium hirtum</i>	Rose clover	I	Limited
	<i>Trifolium repens</i>	White clover	I	
	<i>Trifolium subterraneum</i>	Subterranean clover	I	
	<i>Trifolium willdenovii</i>	Tomcat clover	N	
	<i>Vicia sativa</i> ssp. <i>nigra</i>	Narrow-leaved vetch	I	
Fagaceae	<i>Quercus douglasii</i>	Blue oak	N	
	<i>Quercus lobata</i>	Valley oak	N	
	<i>Quercus wislizeni</i>	Interior live oak	N	
Geraniaceae	<i>Erodium cicutarium</i>	Redstem filaree	I	Limited
	<i>Erodium moschatum</i>	Greenstem filaree	I	
	<i>Geranium dissectum</i>	Cranesbill, geranium	I	Limited
Hypericaceae	<i>Hypericum concinnum</i>	Gold-wire	N	
Lamiaceae	<i>Lamium amplexicaule</i>	Henbit	I	
	<i>Mentha pulegium</i>	Pennyroyal	I	
	<i>Stachys ajugoides</i>	Hedge-nettle	N	
Linaceae	<i>Linum bienne</i>	Flax	I	

**P19-0008 - CROWLEY PARCEL MAP
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Family	Scientific Name¹	Common Name	N/I²	Cal-IPC³
Lythraceae	<i>Lythrum hyssopifolia</i>	Loosestrife	I	Limited
Malvaceae	<i>Malva neglecta</i>	Common mallow	I	
Montiaceae	<i>Calandrinia menziesii</i>	Red maids	N	
Moraceae	<i>Morus alba</i> *	White mulberry	I	
Myrsinaceae	<i>Anagallis arvensis</i>	Scarlet pimpernel	I	
Onagraceae	<i>Epilobium brachycarpum</i>	Willowherb	N	
	<i>Ludwigia peploides ssp. montevidensis</i>	Water primrose	I	High
Orobanchaceae	<i>Parentucellia viscosa</i>		I	Limited
Phrymaceae	<i>Erythranthe guttata</i> (Syn. <i>Mimulus guttatus</i>)	Common monkeyflower	N	
Plantaginaceae	<i>Kickxia spuria</i>	Kickxia	I	
	<i>Plantago lanceolata</i>	English plantain	I	Limited
	<i>Plantago major</i>	Common plantain	I	
	<i>Veronica arvensis</i>	Speedwell, brooklime	I	
Polemoniaceae	<i>Collomia heterophylla</i>	Variable-leaf collomia	N	
	<i>Navarretia intertexta</i>	Navarretia	N	
Polygonaceae	<i>Polygonum aviculare</i>	Knotweed	I	
	<i>Rumex conglomeratus</i>	Dock	I	
	<i>Rumex crispus</i>	Curly dock	I	Limited
Portulacaceae	<i>Portulaca oleracea</i>	Purslane	I	
Ranunculaceae	<i>Ranunculus muricatus</i>	Buttercup	I	
Rosaceae	<i>Rubus armeniacus</i>	Himalayan blackberry	I	High
Rubiaceae	<i>Galium aparine</i>	Goose grass	N	
	<i>Galium parisiense</i>	Wall bedstraw	I	
Salicaceae	<i>Populus nigra</i> *	Lombardy poplar	I	
	<i>Salix laevigata</i>	Red willow	N	
Sapindaceae	<i>Acer palmatum</i> *	Japanese maple	I	
Verbenaceae	<i>Phyla nodiflora</i>	Phyla	N	
Vitaceae	<i>Vitis californica</i>	California wild grape	N	
MONOCOTS				
Amaryllidaceae	<i>Agapanthus sp.*</i>	Agapanthus	I	
Cyperaceae	<i>Carex nebrascensis</i>	Nebraska sedge	N	
	<i>Cyperus eragrostis</i>	Nutsedge	N	
	<i>Eleocharis macrostachya</i>	Spikerush	N	
Iridaceae	<i>Iris sp.*</i>	Iris	I	
Juncaceae	<i>Juncus balticus ssp. ater</i>	Baltic rush	N	
	<i>Juncus bufonius</i>	Toad rush	N	
Poaceae	<i>Avena sp.</i>	Oats	I	
	<i>Briza minor</i>	Annual quaking grass	I	
	<i>Bromus diandrus</i>	Ripgut grass	I	Moderate
	<i>Bromus hordeaceus</i>	Soft chess	I	Limited
	<i>Bromus rubens</i> (Syn. <i>Bromus madritensis ssp. rubens</i>)	Red brome	I	High
	<i>Bromus sterilis</i>	Poverty brome	I	
	<i>Cynodon dactylon</i>	Bermuda grass	I	Moderate
	<i>Cynosurus echinatus</i>	Bristly dogtail grass	I	Moderate
	<i>Elymus caput-medusae</i> (Syn. <i>Taeniatherum caput-medusae</i>)	Medusa head	I	High
	<i>Festuca perennis</i> (Syn. <i>Lolium perenne</i>)	Rye grass	I	Moderate
	<i>Festuca myuros</i>	Rattail sixweeks grass	I	Moderate
	<i>Glyceria elata</i>	Fowl manna grass	N	

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION**

*Biological Resources Evaluation
Crowley Tentative Parcel Map Site Project
El Dorado County, CA*

Family	Scientific Name¹	Common Name	N/I²	Cal-IPC³
	<i>Holcus lanatus</i>	Common velvet grass	I	Moderate
	<i>Hordeum marinum</i> ssp. <i>gussoneanum</i>	Mediterranean barley	I	Moderate
	<i>Hordeum murinum</i> ssp. <i>leporinum</i>	Hare barley	I	Moderate
	<i>Paspalum dilatatum</i>	Dallis grass	I	
	<i>Poa annua</i>	Annual blue grass	I	
	<i>Polypogon monspeliensis</i>	Annual beard grass	I	Limited
Potamogetonaceae	<i>Potamogeton</i> sp.	Pondweed	--	--
Typhaceae	<i>Typha</i> sp.	Cattail	N	

¹ Nomenclature and taxonomy follow *The Jepson manual: Vascular plants of California*, 2nd ed. (Baldwin et al., eds. 2012) and Jepson eFlora (2020).

² N = Native to California; I = Introduced.

³ Ecological impact rankings by the California Invasive Plant Council (Cal-IPC 2020).

* = Horticultural tree or shrub.

Wildlife Species Observed.

Common Name	Scientific Name
BIRDS	
Brewer's blackbird	<i>Euphagus cyanocephalus</i>
Canada goose	<i>Branta canadensis</i>
Mallard	<i>Anas platyrhynchos</i>
Red-breasted sapsucker	<i>Sphyrapicus ruber</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Western scrub-jay	<i>Aphelocoma californica</i>
MAMMALS	
Eastern gray squirrel	<i>Sciurus carolinensis</i>
Rabbit	<i>Lepus</i> sp. or <i>Sylvilagus</i> sp.

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION**

*Biological Resources Evaluation
Crowley Tentative Parcel Map Site Project
El Dorado County, CA*

APPENDIX D

Photographs



Photo 1. Typical understory in the woodland area of Parcel 1 south of residence; concrete drive in foreground and dirt road in background. 14 May 2020



Photo 2. Another area of understory in the woodland of Parcel 1, south of residence, showing manicured lawn and other landscaped areas. 14 May 2020



Photo 3. Portion of irrigated pasture on Parcel 1. View towards south. 14 May 2020



Photo 4. Portion of irrigated pasture on Parcel 1. View towards north. Residence in background, top right, partially obscured by trees. 14 May 2020

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT N - BIOLOGICAL RESOURCES EVALUATION**

*Biological Resources Evaluation
Crowley Tentative Parcel Map Site Project
El Dorado County, CA*



Photo 5. South side of pond showing narrow band of fringe wetland. View toward northeast. Water primrose (*Ludwigia peploides* ssp. *montevidensis*) in foreground. 14 May 2020



Photo 6. West side of pond, view northward, showing vegetated berm in background and narrow band of fringe wetland, i.e., the green vegetation in foreground and around edge of pond (spikerush; *Eleocharis macrostachya*). 14 May 2020



Photo 7. View of Channel 2 looking south, south of the pond. Cattails (*Typha* sp.) in foreground near a small red willow shrub (*Salix laevigata*). 14 May 2020



Photo 8. View of Channel 2 looking south, on the west side of the pond, from top of the berm. A portion of the berm around the pond is in foreground. 14 May 2020

P19-0008 - CROWLEY PARCEL MAP
EXHIBIT O - WETLAND SETBACK ANALYSIS



SYCAMORE ENVIRONMENTAL CONSULTANTS, INC.

6355 Riverside Blvd., Suite C, Sacramento, CA 95831

916/ 427-0703

www.sycamoreenv.com

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PLANNING DEPARTMENT

20 August 2019

Jon and Teresa Crowley
5450 Milton Ranch Road
Shingle Springs, CA 95682

Phone: 530-677-1651
Mobile: 530-306-0242
Email: teresagcrowley@gmail.com

Subject: Wetland Setback Analysis Letter for the Crowley Tentative Map Project, Pursuant to General Plan Policy 7.3.3.4, El Dorado County, CA.

Dear Mr. and Ms. Crowley,

This letter documents the results of a wetland setback analysis for the Crowley Tentative Map Project (Project), in the Shingle Springs area of El Dorado County, CA. The Project is a proposed parcel split. The El Dorado County zoning ordinance Article 3, Chapter 130.30.050. Section G, governs the protection of wetlands and sensitive riparian habitat. The ordinance was last adopted 14 August 2018 and amended 8 January 2019. The County approval of the Crowley Tentative Map is subject to Section G.3.e of the zoning ordinance. Section G.3.e requires a biological resource evaluation to determine avoidance areas, buffers and setbacks necessary to reduce potential impacts to wetlands to less than significant. This letter addresses the requirements of Section G.3.e.

Existing Conditions

An existing home occurs northeast of an artificial pond. A driveway begins at Milton Ranch Road ±1800 ft south of the existing home and curves around the west and north sides of the pond, ending at the existing home. An unnamed intermittent stream fills the pond from the south during the rainy season. The intermittent stream is shown on the Shingle Springs USGS topographic quad map (13 March 2015). An 18-inch CMP culvert conveys runoff and outfalls in the northeast corner of the pond. The pond is filled with well water during dry years. Water exits the pond from a small channel at the southwest corner, draining north along the west side of the pond, and under the driveway through a culvert.

Methods

Sycamore Environmental biologist Juan Mejia, B.S., conducted the survey on 30 July 2019 from 3:30 pm to 5:30 pm. Weather during the survey was sunny and warm. Temperatures ranged from 86° F at the start to 88° F at the end of the survey.

The survey focused on the existing pond and its potential impact from the existing house and driveway. The pond boundaries were determined base on the "ordinary high water mark," (OHWM) as defined by 33 CFR § 328.3 (e). The pond boundaries were pin flagged for a land survey and mapped with a sub-meter accurate Trimble GPS unit.

P19-0008

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT O - WETLAND SETBACK ANALYSIS**

*Crowley Tentative Map Project
Wetland Setback Analysis
El Dorado County, CA*

Results

The pond is the result of an artificial berm surrounding the eastern, western and northern perimeter. The berm is approximately 20 ft wide and 6 ft higher than the OHWM of the pond. The fence line of the existing home is approximately 105 ft away from the pond to the east. The driveway is approximately 55 ft away from the pond to the west and 70 ft away to the north. Attachment A is Project map showing the approximate pond and intermittent stream boundaries.

During the survey the intermittent stream was dry and the pond contained standing water. The pond is an impoundment of an intermittent stream. The intermittent stream is a tributary to Deer Creek and likely a potential waters of the U.S. Impoundments of waters of the U.S. are by definition also waters of the U.S. (33 CFR § 328.3 (a)). Water exiting the pond is a continuation of the intermittent stream.

Recommendations

The existing home and driveway surrounding the pond and intermittent stream are of sufficient distance away to avoid potential impacts. The County zoning ordinance requires ministerial developments, including single family dwellings and accessory structures, have a minimum setback distance of 25 ft from intermittent streams and wetlands. Except for the where the intermittent stream crosses under the driveway, the existing conditions meet or exceed a 25 ft setback.

The Crowley Tentative Map does not propose new structures near the existing pond or the intermittent stream. Should any structures be proposed in the future they should be set back a minimum of 25 feet from the pond and 7.5 ft from the intermittent stream. No structures should be placed on the artificial berm surrounding the pond. These conditions would reduce potential impacts.

Please feel free to contact me if you have any questions.

Regards,









Juan Mejia
Biologist

Attachment A. Wetland Setback Map
Attachment B. Photo Page

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT O - WETLAND SETBACK ANALYSIS**



Crowley Tentative Map Project
El Dorado County, CA
16 August 2019

- | | |
|--|---|
|  Intermittent Channel |  Parcel Boundary |
|  Wetland Boundary |  Wetland Study Area |
|  Existing Culvert |  Photo Point |

Aerial photograph: 16 August 2018
Google Earth Aerial Imagery

Wetland Setback Map

**P19-0008 - CROWLEY PARCEL MAP
EXHIBIT O - WETLAND SETBACK ANALYSIS**

*Attachment B Photo Page
Crowley Tentative Map Project
El Dorado County, CA*



Photo 1. View looking northwest towards pond (30 July 2019).



Photo 2. View looking northeast towards the artificial berm surround the pond (30 July 2019).



Photo 3. View looking north towards the intermittent stream exiting the pond (30 July 2019).



Photo 4. View looking southwest towards the area between existing home and pond (30 July 2019).



Photo 5. View looking south towards intermittent stream just before its confluence with the pond (30 July 2019).



Photo 6. View looking north towards the area between the driveway and intermittent stream (30 July 2019).