Wetland, Wildlife and Natural Features Report
for
Canyon Creek Ranch Development in El Paso County, Colorado

December 18, 2024

Prepared for:

Bill Guman, PLA, ASLA, APA
Willian Guman & Associates, Ltd.
731 North Weber Street
Colorado Springs, CO 80903

Prepared by:

1455 Washburn Street
Erie, Colorado 80516
(p): 970-812-3267

Project Number: 2024-2-1

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LIST OF ACROYNMS AND ABBREVIATIONS

AMSL	above mean sea level
BCC	Birds of Conservation Concern
BGEPA	Bald and Golden Eagle Protection Act
CDA	Colorado Department of Agriculture
CNHP	Colorado Natural Heritage Program
COGCC	Colorado Oil and Gas Conservation Commission
CPW	Colorado Parks and Wildlife
CWA	Clean Water Act
ECOS	Ecosystem Services, LLC
ESA	Endangered Species Act
Guman	Willian Guman & Associates, Ltd.
JD	jurisdictional under the Clean Water Act
LEDPA	Least Environmentally Damaging and Practicable Alternative
MBTA	Migratory Bird Treaty Act
Non-JD	non- jurisdictional under the Clean Water Act
NRCS	Natural Resource Conservation Service
NTCHS	Technical Committee for Hydric Soils
NWI	National Wetland Inventory
PCA	CNHP Potential Conservation Area
PMJM	Preble's meadow jumping mouse
Project	Canyon Creek Ranch project
Report	Wetland, Wildlife and Natural Features Report
Site	Project site
T&E	Threatened and Endangered species
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 INTRODUCTION

Ecosystem Services, LLC (ECOS) was retained by Willian Guman & Associates, Ltd. (Guman) to perform a natural resource assessment for the 24.65-acre Canyon Creek Ranch project (Project) and to prepare this Wetland, Wildlife and Natural Features Report (Report).

The contact information for the Guman and ECOS representatives for this Report is provided below:

Client

Bill Guman, PLA, ASLA, APA
William Guman & Associates, Ltd.
731 North Weber Street
Colorado Springs, CO 80903
Phone: (719) 633-9700
bill@guman.net

Agent

Grant E. Gurnée, P.W.S.
Ecosystem Services, LLC
1455 Washburn Street
Erie, Colorado 80516
Phone: (303) 746-0091
grant@ecologicalbenefits.com

1.1 Purpose

The purpose of the assessment is to compare background information with present-day conditions, ascertain the physical/ecological characteristics and conditions of the Site, identify potential environmental opportunities and constraints associated with development improvements, and determine the presence/absence and approximate extent of the following features:

- Vegetation Communities;
- Natural Landforms;
- Wetland habitat and other waters of the U.S. (i.e., lakes, ponds, streams) regulated under the Clean Water Act;
- Drainages and Riparian Areas;
- Wildlife Habitat:
    - Federal listed threatened and endangered species habitat regulated under the Endangered Species Act;
    - Migratory birds and raptors regulated under the Migratory Bird Treaty Act (MBTA) and Bald and Golden Eagle Protection Act (BEGPA).

1.2 Site Location

The Site is located in the southwest portion of the Black Forest, due east of northern Colorado Springs in El Paso County, Colorado. It is situated south of Kettle Creek, east of Howells Road, west of Milam Road and north of Mountain View Drive. It is adjacent to the south and west sides of Timber Lake Estates #2 subdivision and west of the Kettle Creek subdivision. The Site is specifically located within the South 1/2 of the Southwest 1/4 of Section 14, Township 12 South, Range 66 West of the 6th P.M., El Paso County, Colorado (El Paso County Parcel 6214000112). The center of the Site is located at approximately Latitude 38.999156˚ north, Longitude -104.749722˚ west at an elevation of

approximately 6,920 feet above mean sea level. Refer to Figure 1, USGS Site Location Map and Figure 2, Existing Conditions Aerial Photo.

1.3 Project Description

The property is currently unplatted, and the Applicant is seeking approval of a Final Plat. Upon approval of the Final Plat, Canyon Creek Ranch will contain three single-family, residential lots, all of which will be 6+ acres in size. One lot will include an existing residence (4310 Saxton Hollow Road), so there will only be 2 new homes. Please refer to Figure 3, Final Plat provided by the Applicant (dated December 6, 2024) and the development application for specific details and descriptions of the Project.

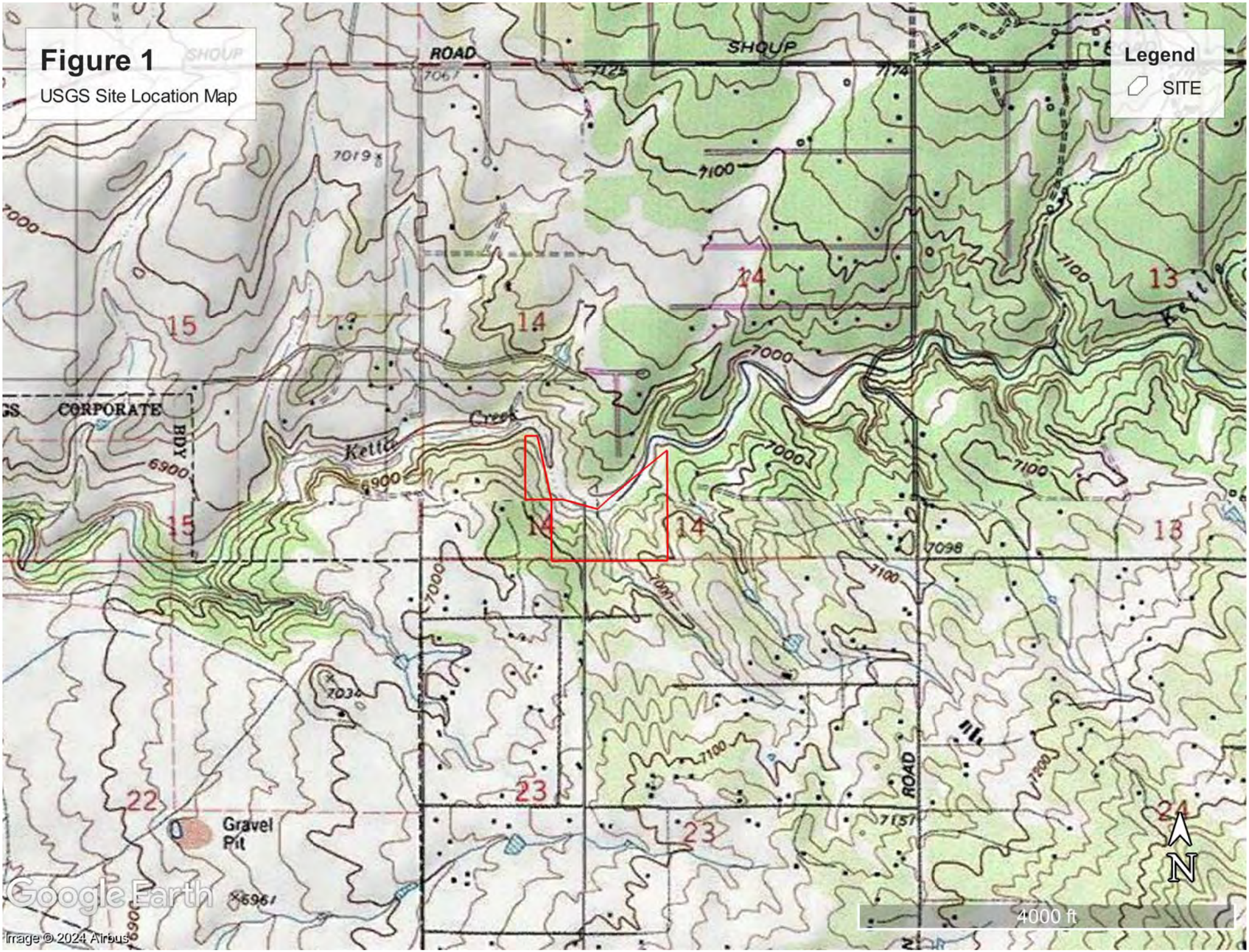


Figure 1
USGS Site Location Map
Legend
SITE
SHOUP
ROAD
SHOUP
7067
7125
7174
7019
7100
7000
7100
13
14
15
14
7000
CORPORATE
BDY
6900
Kettle
Creek
6900
7000
7100
15
14
14
13
7098
7000
7100
7071
7034
7100
23
ROAD
7200
22
Gravel
Pit
23
7151
24
6961
6900
N
Google Earth
4000 ft
Image © 2024 Airbus

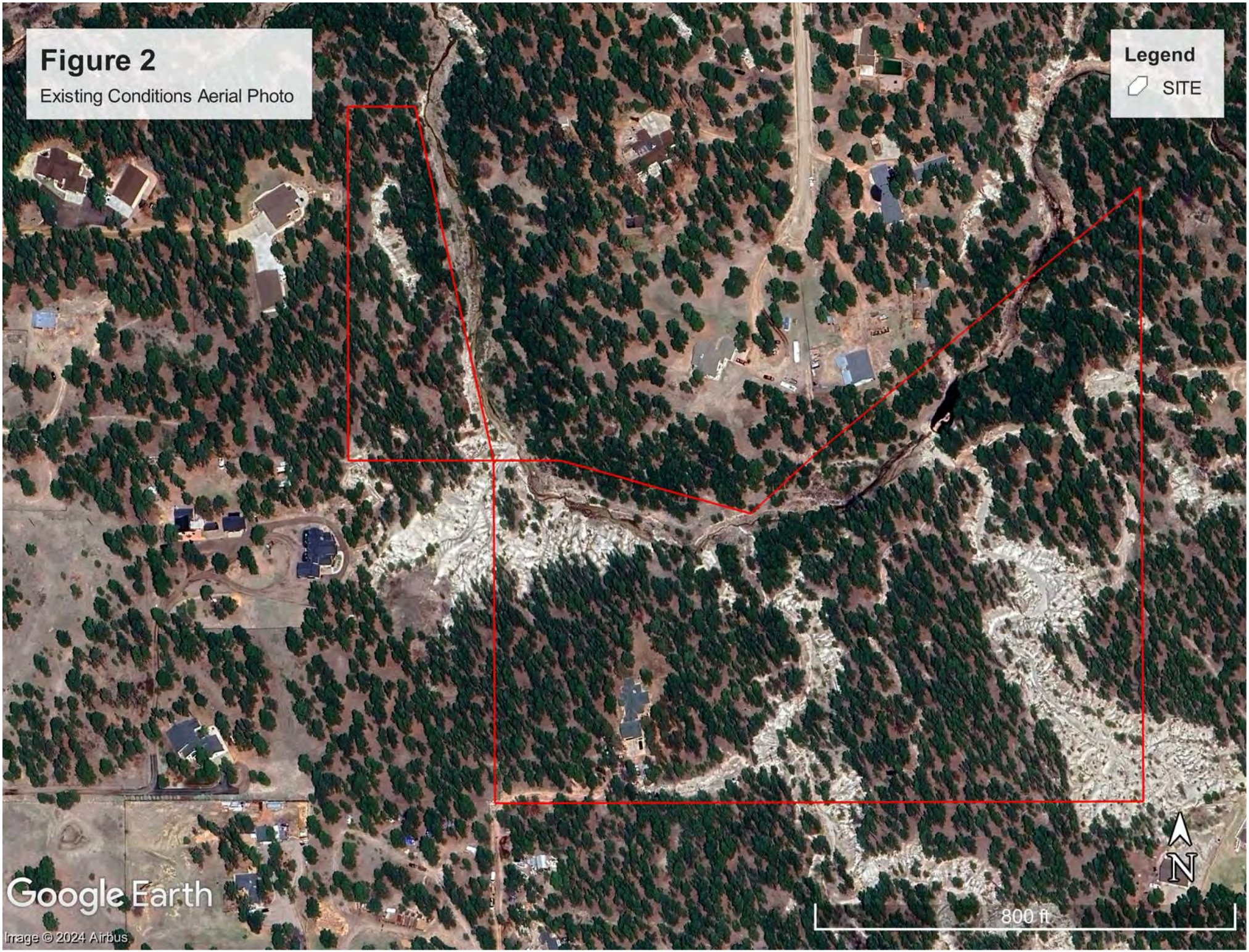


Figure 2
Existing Conditions Aerial Photo
Legend
SITE
N
800 ft
Google Earth
Image © 2024 Airbus

Figure 3
Final Plat

CANYON CREEK RANCH

FINAL PLAT

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 14, TOWNSHIP 12 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

KNOW ALL MEN BY THESE PRESENTS

THAT GREGG A. CAWLFIELD AND JANNETTE E. CAWLFIELD, BEING THE OWNERS OF THE FOLLOWING TRACT OF LAND:

A PARCEL OF LAND BEING A PORTION OF THE SOUTHWEST QUARTER OF SECTION 14, TOWNSHIP 12 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SECTION 14, TOWNSHIP 12 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN, MONUMENTED AT THE EAST END BY A 2" ALUMINUM CAP STAMPED "PLS 13830" AND AT THE WEST END BY A 3.25ø ALUMINUM CAP STAMPED "PLS 27270", BEARING S89°59'35"W AS REFERENCED TO COLORADO STATE PLANE CENTRAL ZONE.

BEGINNING AT THE SOUTH QUARTER CORNER OF SECTION 14, TOWNSHIP 12 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN;

THENCE ON THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 14, S89°59'35"W A DISTANCE OF 1213.14 FEET;

THENCE N00°01'19"W A DISTANCE OF 325.92 FEET;

THENCE N00°41'01"W A DISTANCE OF 325.73 FEET, TO THE SOUTHWESTERLY CORNER OF LOT 4, TIMBER LAKE ESTATES NO. 2 RECORDED UNDER RECEPTION NO. 526015 IN THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER;

THENCE S89°57'53"W A DISTANCE OF 285.54 FEET;

THENCE N00°27'12"W A DISTANCE OF 669.21 FEET, TO A POINT ON THE SOUTHERLY LINE OF TIMBER LAKE ESTATES RECORDED UNDER RECEPTION NO. 327454;

THENCE ON SAID SOUTHERLY LINE, N89°38'23"E A DISTANCE OF 141.53 FEET, TO THE NORTHWESTERLY CORNER OF LOT 5, TIMBER LAKE ESTATES NO. 2;

THENCE ON THE WESTERLY LINE OF TIMBER LAKE ESTATES NO. 2, S12°33'54"E A DISTANCE OF 686.34 FEET, TO SAID SOUTHWESTERLY CORNER OF LOT 4, TIMBER LAKE ESTATES NO. 2;

THENCE ON THE SOUTHERLY LINE OF TIMBER LAKE ESTATES NO. 2, THE FOLLOWING FOUR (4) COURSES:

1. S89°51'58"E A DISTANCE OF 125.03 FEET;
2. S74°33'33"E A DISTANCE OF 367.46 FEET;
3. N47°38'22"E A DISTANCE OF 175.00 FEET;
4. N50°54'08"E A DISTANCE OF 781.63 FEET, TO A POINT ON THE WESTERLY LINE OF KETTLE CREEK SUBDIVISION RECORDED UNDER RECEPTION NO. 519778 ALSO BEING THE EAST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 14;

THENCE ON SAID EAST LINE, S00°05'58"E A DISTANCE OF 1164.20 FEET, TO THE POINT OF BEGINNING.

CONTAINING A CALCULATED AREA OF 1,072,990 SQUARE FEET OR 24.6325 ACRES.

DEDICATION

THE ABOVE OWNER HAS CAUSED SAID TRACT OF LAND TO BE PLATTED INTO LOTS AND EASEMENTS AS SHOWN ON THIS PLAT. THE UNDERSIGNED DOES HEREBY DEDICATE, GRANT AND CONVEY TO EL PASO COUNTY THOSE PUBLIC EASEMENTS AS SHOWN ON THE PLAT; AND FURTHER RESTRICTS THE USE OF ALL PUBLIC EASEMENTS TO EL PASO COUNTY AND/OR ITS ASSIGNS, PROVIDED HOWEVER, THAT THE SOLE RIGHT AND AUTHORITY TO VACATE, RELEASE OR QUIT-CLAIM ALL OR ANY SUCH PUBLIC EASEMENTS SHALL REMAIN EXCLUSIVELY VESTED IN EL PASO COUNTY. THE INGRESS/EGRESS EASEMENTS AS PLATTED ARE HEREBY DEDICATED FOR PRIVATE USE. THIS TRACT OF LAND AS HEREIN PLATTED SHALL BE KNOWN AS "CANYON CREEK RANCH" IN EL PASO COUNTY, COLORADO.

OWNERS CERTIFICATE

THE UNDERSIGNED, BEING ALL THE OWNERS, MORTGAGEES, BENEFICIARIES OF DEEDS OF TRUST AND HOLDERS OF OTHER INTERESTS IN THE LAND DESCRIBED HEREIN, HAVE LAID OUT, SUBDIVIDED, AND PLATTED SAID LANDS INTO LOTS AND EASEMENTS AS SHOWN HEREON UNDER THE NAME AND SUBDIVISION OF CANYON CREEK RANCH. ALL PUBLIC IMPROVEMENTS SO PLATTED ARE HEREBY DEDICATED TO PUBLIC USE AND SAID OWNER DOES HEREBY COVENANT AND AGREE THAT THE PUBLIC IMPROVEMENTS WILL BE CONSTRUCTED TO EL PASO COUNTY STANDARDS AND THAT PROPER DRAINAGE AND EROSION CONTROL FOR SAME WILL BE PROVIDED AT SAID OWNER'S EXPENSE, ALL TO THE SATISFACTION OF THE BOARD OF COUNTY COMMISSIONERS OF EL PASO COUNTY, COLORADO. UPON ACCEPTANCE BY RESOLUTION, ALL PUBLIC IMPROVEMENTS SO DEDICATED WILL BECOME MATTERS OF MAINTENANCE BY EL PASO COUNTY, COLORADO. THE UTILITY EASEMENTS SHOWN HEREON ARE HEREBY DEDICATED FOR PUBLIC UTILITIES AND COMMUNICATION SYSTEMS AND OTHER PURPOSES AS SHOWN HEREON. THE ENTITIES RESPONSIBLE FOR PROVIDING THE SERVICES FOR WHICH THE EASEMENTS ARE ESTABLISHED ARE HEREBY GRANTED THE PERPETUAL RIGHT OF INGRESS AND EGRESS FROM AND TO ADJACENT PROPERTIES FOR INSTALLATION, MAINTENANCE, AND REPLACEMENT OF UTILITY LINES AND RELATED FACILITIES.

_____
OWNERS: GREGG A. CAWLFIELD AND JANNETTE E. CAWLFIELD

BY: _____

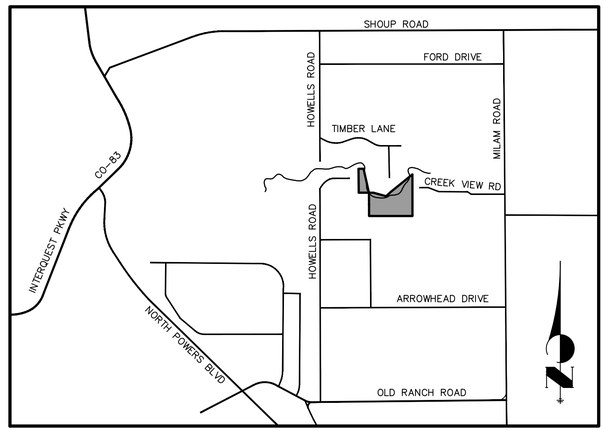
STATE OF COLORADO)
)SS.
COUNTY OF _____)

ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____, 20_____ BY

_____.

MY COMMISSION EXPIRES _____

WITNESS MY HAND AND OFFICIAL SEAL_____
NOTARY PUBLIC



VICINITY MAP
SCALE: 1"=2000'

GENERAL NOTES:

1. PER C.R.S. 38-51-106, "ALL LINEAL UNITS DEPICTED ON THIS LAND SURVEY PLAT ARE U.S. SURVEY FEET". ONE METER EQUALS 39.37/12 U.S. SURVEY FEET, EXACTLY ACCORDING TO THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.
2. ANY PERSON WHO KNOWINGLY REMOVES, ALTERS OR DEFACES ANY PUBLIC LAND SURVEY MONUMENT OR LAND BOUNDARY MONUMENT OR ACCESSORY COMMITS A CLASS TWO (2) MISDEMEANOR PURSUANT TO C.R.S. § 18-4-508
3. BASIS OF BEARING: THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SECTION 14, TOWNSHIP 12 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN, MONUMENTED AT THE EAST END BY A 2" ALUMINUM CAP STAMPED "PLS 13830" AND AT THE WEST END BY A 3.25" ALUMINUM CAP STAMPED "PLS 27270", BEARING S89°59'35"W AS REFERENCED TO COLORADO STATE PLANE CENTRAL ZONE.
4. THIS LAND SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY JR ENGINEERING, LLC. FOR ALL INFORMATION REGARDING EASEMENTS, RIGHT-OF-WAY OR TITLE OF RECORD, JR ENGINEERING, LLC RELIED UPON TITLE COMMITMENT NO. _____, PREPARED BY _____ TITLE COMPANY, DATED _____.
5. PORTIONS OF THIS SITE LIE WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AND WITHIN SPECIAL FLOOD HAZARD AREA 'ZONE AE" (THE FLOODWAY IS THE CHANNEL OF A STREAM PLUS ANY ADJACENT FLOODPLAIN AREAS THAT MUST BE KEPT FREE OF ENCROACHMENT SO THAT THE 1% ANNUAL CHANCE FLOOD CAN BE CARRIED WITHOUT SUBSTANTIAL INCREASES IN FLOOD HEIGHTS), AS DETERMINED BY GRAPHIC INTERPRETATION. FLOODPLAIN INFORMATION WAS OBTAINED FROM F.E.M.A. FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAPS FOR EL PASO COUNTY, COLORADO, MAP NUMBERS 08041C0295G, 08041C0315G, 08041C0507G AND 08041C0526G, ALL WITH REVISED DATES OF DECEMBER 7, 2018.
6. THE ADDRESSES EXHIBITED ON THIS PLAT ARE FOR INFORMATIONAL PURPOSES ONLY. THEY ARE NOT THE LEGAL DESCRIPTION AND ARE SUBJECT TO CHANGE.
7. A DRIVEWAY PERMIT IS REQUIRED TO BE APPLIED FOR AND APPROVED BY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT PRIOR TO THE ESTABLISHMENT OF ANY DRIVEWAY.
8. INDIVIDUAL LOT PURCHASERS ARE RESPONSIBLE FOR CONSTRUCTING DRIVEWAYS, INCLUDING NECESSARY DRAINAGE CULVERTS FROM CREEK VIEW ROAD PER LAND DEVELOPMENT CODE SECTION 6.3.3.C.2 AND 6.3.3.C.3.
9. THE FOLLOWING REPORTS HAVE BEEN SUBMITTED IN ASSOCIATION WITH THE PRELIMINARY PLAN OR FINAL PLAT FOR THIS SUBDIVISION AND ARE ON FILE AT THE COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT: SOILS AND GEOLOGICAL STUDY; WATER AVAILABILITY STUDY; DRAINAGE REPORT; WILDFIRE HAZARD REPORT; NATURAL FEATURES REPORT; PERCOLATION TEST RESULTS; EROSION CONTROL REPORT, FIRE PROTECTION REPORT, OWTS REPORT.
10. SEWAGE TREATMENT IS THE RESPONSIBILITY OF EACH INDIVIDUAL PROPERTY OWNER. THE EL PASO COUNTY HEALTH DEPARTMENT MUST APPROVE EACH SYSTEM AND IN SOME CASES THE DEPARTMENT MAY REQUIRE AN ENGINEER DESIGNED SYSTEM PRIOR TO PERMIT APPROVAL.
11. INDIVIDUAL WELLS ARE THE RESPONSIBILITY OF EACH PROPERTY OWNER. PERMITS FOR INDIVIDUAL DOMESTIC WELLS MUST BE OBTAINED FROM THE STATE ENGINEER WHO BY LAW HAS THE AUTHORITY TO SET CONDITIONS FOR THE ISSUANCE OF THESE PERMITS.
12. UNLESS SHOWN OTHERWISE, ALL SIDE, FRONT AND REAR LOT LINES ARE HEREBY PLATTED WITH A 10 FOOT WIDE PUBLIC UTILITY AND DRAINAGE EASEMENT. ALL EXTERIOR SUBDIVISION BOUNDARIES ARE HEREBY PLATTED WITH A 20 FOOT WIDE PUBLIC UTILITY AND DRAINAGE EASEMENT. THE SOLE RESPONSIBILITY FOR MAINTENANCE OF THESE EASEMENTS IS HEREBY VESTED WITH THE INDIVIDUAL PROPERTY OWNERS.
13. ALL STRUCTURAL FOUNDATIONS SHALL BE LOCATED AND DESIGNED BY A PROFESSIONAL ENGINEER, CURRENTLY REGISTERED IN THE STATE OF COLORADO.
14. WATER IN THE DENVER BASIN AQUIFERS IS ALLOCATED BASED ON A 100 YEAR AQUIFER LIFE; HOWEVER, FOR EL PASO COUNTY PLANNING PURPOSES, WATER IN THE DENVER BASIN AQUIFERS IS EVALUATED BASED ON A 300 YEAR AQUIFER LIFE. APPLICANT AND ALL FUTURE OWNERS IN THE SUBDIVISION SHOULD BE AWARE THAT THE ECONOMIC LIFE OF A WATER SUPPLY BASED ON WELLS IN A GIVEN DENVER BASIN AQUIFER MAY BE LESS THAN EITHER THE 100 YEARS OR 300 YEARS USED FOR ALLOCATION INDICATED DUE TO ANTICIPATED WATER LEVEL DECLINES. FURTHERMORE, THE WATER SUPPLY PLAN SHOULD NOT RELY SOLELY UPON NON-RENEWABLE AQUIFERS. ALTERNATIVE RENEWABLE WATER RESOURCES SHOULD BE ACQUIRED AND INCORPORATED IN A PERMANENT WATER SUPPLY PLAN THAT PROVIDES FUTURE GENERATIONS WITH A WATER SUPPLY.
15. THE PROPERTY OWNER, ITS SUCCESSORS AND ASSIGNS, AND ALL FUTURE LOT OWNERS IN THIS DEVELOPMENT ARE HEREBY ON NOTICE THAT THEY MAY BE REQUIRED TO COMPLY WITH APPLICABLE RULES, IF ANY, OF THE COLORADO GROUNDWATER COMMISSION AND\OR THE UPPER BLACK SQUIRREL CREEK GROUND WATER MANAGEMENT DISTRICT, WHICH COMPLIANCE MAY RESULT IN A REDUCTION OF WELL WITHDRAWL LIMITS, AND THUS A REDUCTION IN WATER AVAILABILITY.
16. ALL PROPERTY OWNERS ARE RESPONSIBLE FOR MAINTAINING PROPER STORM WATER DRAINAGE IN AND THROUGH THEIR PROPERTY. PUBLIC DRAINAGE EASEMENTS SHALL BE MAINTAINED BY THE INDIVIDUAL LOT OWNERS UNLESS OTHERWISE INDICATED. STRUCTURES, FENCES, MATERIALS OR LANDSCAPING THAT COULD IMPEDE THE FLOW OR RUNOFF SHALL NOT BE PLACED IN THE DRAINAGE EASEMENTS.
17. DEVELOPER SHALL COMPLY WITH FEDERAL AND STATE LAWS, REGULATION, ORDINANCES, REVIEW AND PERMIT REQUIREMENTS, AND OTHER AGENCY REQUIREMENT, IF ANY, OF APPLICABLE AGENCIES INCLUDING, BUT NOT LIMITED TO, THE COLORADO DEPARTMENT OF PARKS AND WILDLIFE, COLORADO DEPARTMENT OF TRANSPORTATION, U.S. ARMY CORPS OF ENGINEERS, AND THE U.S. FISH & WILDLIFE SERVICE REGARDING THE ENDANGERED SPECIES ACT, PARTICULARLY AS IT RELATES TO THE LISTED SPECIES (E.G., PREBLES MEADOW JUMPING MOUSE).
18. MAILBOXES SHALL BE INSTALLED IN ACCORDANCE WITH ALL EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS AND UNITED STATES POSTAL SERVICE REGULATIONS.

GENERAL NOTES CONTINUED:

19. THE SUBDIVIDER(S) AGREES ON BEHALF OF HIM/HERSELF AND ANY DEVELOPER OR BUILDER SUCCESSORS AND ASSIGNEES THAT SUBDIVIDER AND/OR SAID SUCCESSORS AND ASSIGNS SHALL BE REQUIRED TO PAY TRAFFIC IMPACT FEES IN ACCORDANCE WITH THE EL PASO COUNTY ROAD IMPACT FEE PROGRAM RESOLUTION (RESOLUTION NO.19-471), OR ANY AMENDMENTS THERETO, AT OR PRIOR TO THE TIME OF BUILDING PERMIT SUBMITTALS. THE FEE OBLIGATION, IF NOT PAID AT FINAL PLAT RECORDING, SHALL BE DOCUMENTED ON ALL SALES DOCUMENTS AND ON PLAT NOTES TO ENSURE THAT A TITLE SEARCH WOULD FIND THE FEE OBLIGATION BEFORE SALE OF THE PROPERTY.
20. THE FOLLOWING LOTS HAVE BEEN FOUND TO BE IMPACTED BY GEOLOGIC HAZARDS. MITIGATION MEASURES AND A MAP OF THE HAZARD AREA CAN BE FOUND IN THE REPORT (TITLE OF REPORT, GENERALLY FROM THE PRELIMINARY PLAN FILE) BY (AUTHOR OF THE REPORT) (DATE OF REPORT) IN FILE (NAME OF FILE AND FILE NUMBER) AVAILABLE AT THE EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT:
    DOWNSLOPE CREEP: (NAME LOTS OR LOCATION OF AREA)
    ROCKFALL SOURCE:(NAME LOTS OR LOCATION OF AREA)
    ROCKFALL RUNOUT ZONE:(NAME LOTS OR LOCATION OF AREA)
    POTENTIALLY SEASONALLY HIGH GROUNDWATER:(NAME LOTS OR LOCATION OF AREA)
    OTHER HAZARD:
    IN AREAS OF HIGH GROUNDWATER:
    DUE TO HIGH GROUNDWATER IN THE AREA, ALL FOUNDATIONS SHALL INCORPORATE AN UNDERGROUND DRAINAGE SYSTEM.

SURVEYORS CERTIFICATE

I DEREK LEE VAGIAS, A DULY REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THIS PLAT TRULY AND CORRECTLY REPRESENTS THE RESULTS OF A SURVEY MADE ON DATE OF SURVEY, BY ME OR UNDER MY DIRECT SUPERVISION AND THAT ALL MONUMENTS EXIST AS SHOWN HEREON; THAT MATHEMATICAL CLOSURE ERRORS ARE LESS THAN 1:10,000 ; AND THAT SAID PLAT HAS BEEN PREPARED IN FULL COMPLIANCE WITH ALL APPLICABLE LAWS OF THE STATE OF COLORADO DEALING WITH MONUMENTS, SUBDIVISION, OR SURVEYING OF LAND AND ALL APPLICABLE PROVISIONS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE.

I ATTEST THE ABOVE ON THIS ____ DAY OF _____, 20_____.

_____
DEREK LEE VAGIAS, DATE
COLORADO REGISTERED PLS #38578
FOR AND ON BEHALF OF JR ENGINEERING, LLC

BOARD OF COUNTY COMMISSIONERS CERTIFICATE

THIS PLAT FOR CANYON CREEK RANCH WAS APPROVED FOR FILING BY THE EL PASO COUNTY, COLORADO BOARD OF COUNTY COMMISSIONERS ON THE _____ DAY OF _____, 20_____, SUBJECT TO ANY NOTES SPECIFIED HEREON AND ANY CONDITIONS INCLUDED IN THE RESOLUTION OF APPROVAL. THE DEDICATIONS OF LAND TO THE PUBLIC (EASEMENTS) ARE ACCEPTED, BUT PUBLIC IMPROVEMENTS THEREON WILL NOT BECOME THE MAINTENANCE RESPONSIBILITY OF EL PASO COUNTY UNTIL PRELIMINARY ACCEPTANCE OF THE PUBLIC IMPROVEMENTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE AND ENGINEERING CRITERIA MANUAL, AND THE SUBDIVISION IMPROVEMENTS AGREEMENT.

_____ _____
CHAIR, BOARD OF COUNTY COMMISSIONERS DATE

CLERK AND RECORDER

STATE OF COLORADO)
)SS
COUNTY OF EL PASO)

I HEREBY CERTIFY THAT THIS INSTRUMENT WAS FILED FOR RECORD IN MY OFFICE

AT _____ O'CLOCK ____M., THIS _____ DAY OF _____ , 20____, A.D.

AND IS DULY RECORDED AT RECEPTION NO. _____ OF THE RECORDS OF EL PASO COUNTY, COLORADO.

CHUCK BROERMAN, RECORDER

BY: _____
DEPUTY

CONTACTS:

OWNER/DEVELOPER	GREGG A. CAWLFIELD & JANNETTE E CAWLFIELD 4310 SAXTON HOLLOW RD COLORADO SPRINGS, CO 80908 P~541-393-9043
ENGINEER	JR ENGINEERING, LLC ATTN: BRYAN LAW 5475 TECH CENTER DRIVE, SUITE 235 COLORADO SPRINGS, CO 80919 P~(303) 267-6254
SURVEYOR	JR ENGINEERING, LLC ATTN: DEREK VAGIAS 7200 S ALTON WAY, SUITE C400, CENTENNIAL, CO 80112 P~(303) 740-9393

FEES:

RECORDING: _____
PARK: _____
SCHOOL: _____
DRAINAGE: _____
BRIDGE: _____

PCD FILE: MS2213

CANYON CREEK RANCH
JOB NO. 25322.00
DECEMBER 6, 2024
SHEET 1 OF 3

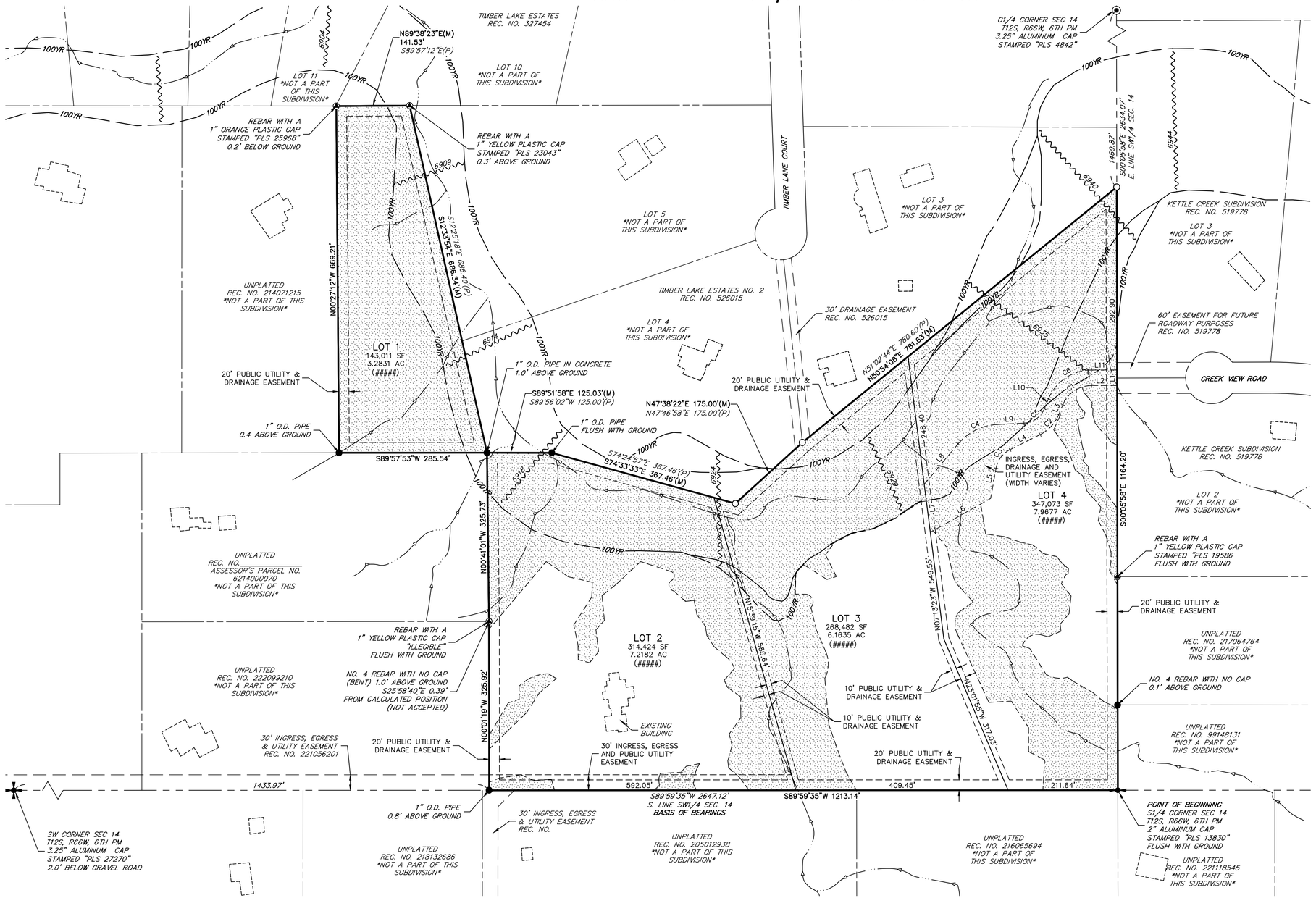
J·R ENGINEERING
A Westrian Company

Centennial 303-740-9393 • Colorado Springs 719-593-2593
Fort Collins 970-491-9888 • www.jrengineering.com

CANYON CREEK RANCH

FINAL PLAT

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 14, TOWNSHIP 12 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO



LEGEND

- BOUNDARY LINE
- EXISTING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING RIGHT-OF-WAY LINE
- SECTION LINE
- PROPOSED PROPERTY LINE
- PROPOSED EASEMENT LINE
- 100YR — 100 YEAR FLOOD PLAIN (SEE GENERAL NOTE #5)
- SWALE
- DRAINAGE EASEMENT NO BUILD AND NO STORAGE OF MATERIALS (SEE SHEET 3)
- * NOT A PART OF THIS SUBDIVISION
- SF SQUARE FEET
- AC ACRE(S)
- (#####) ADDRESS
- (M) MEASURED BEARING / DISTANCE PER THIS PLAT
- (P) BEARING / DISTANCE PER RECORDED PLAT
- ○ SET 18" LONG NO. 5 REBAR WITH A 1.5" ALUMINUM CAP STAMPED "JR ENG PLS 38578

LINE TABLE		
LINE	BEARING	DISTANCE
L1	S00°05'58"E	30.00'
L2	S89°55'48"W	49.39'
L3	S22°33'39"W	20.96'
L4	S63°25'50"W	65.08'
L5	S10°18'01"W	59.40'
L6	S60°39'25"W	133.40'
L7	N07°13'23"W	93.49'
L8	N39°59'21"E	101.81'
L9	N87°01'19"E	52.14'
L10	N22°33'39"E	20.96'
L11	N89°55'48"E	49.38'

CURVE TABLE				
CURVE	DELTA	RADIUS	LENGTH	CHORD
C1	67°22'09"	60.00'	70.55'	S56°14'44"W 66.55'
C2	40°52'11"	75.00'	53.50'	S42°59'45"W 52.37'
C3	53°07'49"	50.00'	46.37'	S36°51'56"W 44.72'
C4	47°01'58"	105.00'	86.19'	N63°30'20"E 83.79'
C5	64°27'40"	45.00'	50.63'	N54°47'29"E 48.00'
C6	67°22'09"	90.00'	105.82'	N56°14'44"E 99.83'

100 50 0 100

ORIGINAL SCALE: 1" = 100'

CANYON CREEK RANCH
JOB NO. 25322.00
DECEMBER 6, 2024
SHEET 2 OF 3

J·R ENGINEERING
A Westrian Company

Centennial 303-740-9393 • Colorado Springs 719-593-2593
Fort Collins 970-491-9888 • www.jrengineering.com

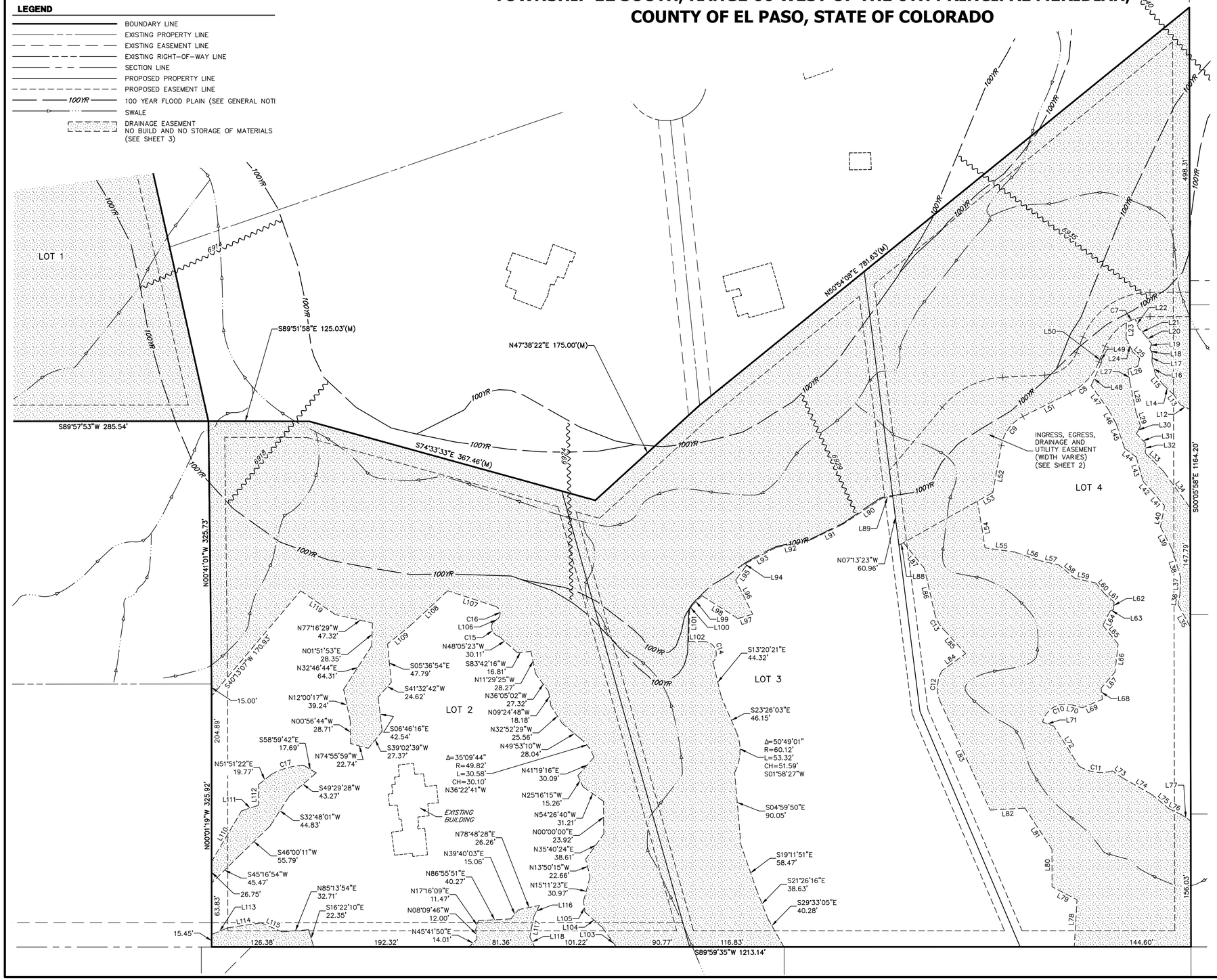
CANYON CREEK RANCH

FINAL PLAT

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 14, TOWNSHIP 12 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

LEGEND

- BOUNDARY LINE
- EXISTING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING RIGHT-OF-WAY LINE
- SECTION LINE
- PROPOSED PROPERTY LINE
- PROPOSED EASEMENT LINE
- 100YR — 100 YEAR FLOOD PLAIN (SEE GENERAL NOTI
- SWALE
- DRAINAGE EASEMENT NO BUILD AND NO STORAGE OF MATERIALS (SEE SHEET 3)



LINE TABLE		
LINE	BEARING	DISTANCE
L12	N63°09'15"W	13.51'
L13	N32°51'49"W	13.83'
L14	N46°18'49"W	19.72'
L15	N37°45'31"W	13.98'
L16	N16°08'38"W	17.34'
L17	N02°34'55"E	10.60'
L18	N28°29'50"W	6.33'
L19	N17°05'04"E	6.64'
L20	N37°32'24"W	13.51'
L21	N41°30'34"W	11.72'
L22	N20°52'31"W	12.00'
L23	S01°00'26"W	19.32'
L24	S26°19'16"E	18.65'
L25	S46°32'20"E	11.79'
L26	S73°11'19"W	12.66'
L27	S08°55'25"E	17.50'
L28	S11°28'31"E	37.30'
L29	S18°07'36"E	17.48'
L30	S28°08'47"W	10.73'
L31	S44°00'29"E	15.77'

LINE TABLE		
LINE	BEARING	DISTANCE
L32	S00°49'52"E	12.93'
L33	S45°06'20"E	31.64'
L34	S36°07'57"E	56.07'
L35	N28°41'00"W	31.99'
L36	N10°17'50"E	13.07'
L37	N02°24'15"E	20.87'
L38	N16°55'07"W	36.64'
L39	N27°23'35"W	31.10'
L40	N11°12'52"E	26.23'
L41	N39°46'33"W	22.58'
L42	N42°42'03"W	17.86'
L43	N15°44'09"W	31.26'
L44	N52°52'14"W	18.12'
L45	N18°58'56"W	31.79'
L46	N28°34'51"W	20.89'
L47	N36°00'55"W	36.13'
L48	N24°06'27"E	31.68'
L49	N07°05'40"W	6.43'
L50	S22°33'39"W	6.54'
L51	S63°25'50"W	65.08'

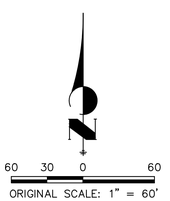
LINE TABLE		
LINE	BEARING	DISTANCE
L52	S10°18'01"W	59.40'
L53	S60°39'25"W	21.87'
L54	S09°34'07"E	35.35'
L55	S82°10'48"E	36.57'
L56	S70°58'30"E	33.26'
L57	S77°27'27"E	24.16'
L58	S50°13'12"E	25.93'
L59	S77°19'22"E	26.56'
L60	S39°15'45"E	17.12'
L61	S49°01'42"E	15.78'
L62	S04°07'30"W	9.27'
L63	S62°10'02"W	4.99'
L64	S26°51'29"W	19.35'
L65	S38°47'39"E	30.05'
L66	S06°26'39"W	34.85'
L67	S40°44'37"W	26.33'
L68	S06°31'33"E	13.88'
L69	S67°13'12"W	26.96'
L70	N74°58'18"W	13.70'
L71	S70°28'29"E	14.69'

LINE TABLE		
LINE	BEARING	DISTANCE
L72	S32°13'26"E	58.64'
L73	S54°33'43"E	13.97'
L74	S60°26'45"E	42.86'
L75	S50°22'10"E	27.82'
L76	S64°41'22"E	16.38'
L77	S55°58'14"E	14.45'
L78	N03°21'27"E	58.57'
L79	N62°32'51"W	34.89'
L80	N00°04'13"W	46.17'
L81	N33°07'50"W	61.26'
L82	S86°41'41"W	43.14'
L83	N24°46'20"W	146.34'
L84	N54°02'20"E	36.42'
L85	N42°03'36"W	36.92'
L86	N12°39'09"W	57.08'
L87	N39°09'13"W	41.28'
L88	S60°39'25"W	6.46'
L89	S81°09'03"W	12.67'
L90	S56°33'54"W	58.66'
L91	S64°00'53"W	44.63'

LINE TABLE		
LINE	BEARING	DISTANCE
L92	S77°38'33"W	43.83'
L93	S62°12'29"W	42.90'
L94	S25°40'00"E	2.75'
L95	S36°58'27"W	22.39'
L96	S26°30'46"E	47.29'
L97	S73°11'12"W	19.02'
L98	N57°32'54"W	52.84'
L99	S45°40'08"W	16.45'
L100	S31°04'55"W	6.99'
L101	S01°35'06"W	39.20'
L102	S89°21'00"E	19.33'
L103	N35°44'40"W	29.74'
L104	N48°28'10"W	28.93'
L105	N06°50'49"W	13.62'
L106	N49°01'03"E	10.40'
L107	N71°51'33"W	59.69'
L108	S47°00'24"W	64.29'
L109	S51°23'38"W	35.25'
L110	N30°35'22"E	72.80'
L111	N71°37'08"E	22.16'

LINE TABLE		
LINE	BEARING	DISTANCE
L112	N00°21'33"W	25.53'
L113	N67°31'04"E	21.57'
L114	N81°22'08"E	41.65'
L115	S66°59'14"E	28.67'
L116	S26°40'06"W	15.42'
L117	S11°08'48"W	25.81'
L118	S25°44'22"E	13.71'

CURVE TABLE					
CURVE	DELTA	RADIUS	LENGTH	CHORD	
C7	11°15'19"	60.00'	11.79'	S66°22'20"W	11.77'
C8	40°52'11"	75.00'	53.50'	S42°59'45"W	52.37'
C9	53°07'49"	50.00'	46.37'	S36°51'56"W	44.72'
C10	91°13'43"	29.23'	46.54'	S59°24'50"W	41.77'
C11	48°40'38"	50.92'	43.26'	S81°49'43"E	41.97'
C12	53°33'02"	44.00'	41.12'	N02°00'11"E	39.64'
C13	34°26'11"	44.30'	26.63'	N31°23'32"W	26.23'
C14	132°44'12"	15.07'	34.90'	S22°58'54"E	27.61'
C15	101°32'41"	12.07'	21.39'	N27°31'12"W	18.70'
C16	115°56'35"	9.52'	19.27'	N23°44'11"W	16.15'
C17	30°58'20"	79.77'	43.12'	N74°19'56"E	42.60'



CANYON CREEK RANCH
JOB NO. 25322.00
DECEMBER 6, 2024
SHEET 3 OF 3

J·R ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-593-2593
Fort Collins 970-491-9888 • www.jrengineering.com

2.0 METHODOLOGY

ECOS performed an office assessment in which available databases, resources, literature and field guides on local flora and fauna were reviewed to gather background information on the environmental setting of the Site. We consulted several organizations, agencies, and their databases, including:

- Colorado Department of Agriculture (CDA) Noxious Weed List;
- Colorado Natural Heritage Program (CNHP);
- Colorado Oil and Gas Conservation Commission (COGCC) GIS Online;
- Colorado Parks and Wildlife (CPW);
- El Paso County Master Plan;
- El Paso County, Sub-Area Plan (provided by Client as applicable);
- Google Earth current and historic aerial imagery;
- Survey of Critical Biological Resources, El Paso County, Colorado;
- Survey of Critical Wetlands and Riparian Areas in El Paso and Pueblo Counties, Colorado;
- U.S. Army Corps of Engineers (USACE) 1987 Corps of Engineers Wetlands Delineation Manual;
- USACE 2008 Interim Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Great Plains Region;
- U.S. Department of Agriculture (USDA) PLANTS Database;
- U.S. Department of Agriculture, Natural Resources Conservation Service Soil Survey;
- U.S. Fish and Wildlife Service (USFWS) Region 6 data;
- USFWS Information, Planning, and Conservation (IPaC) database;
- USFWS National Wetland Inventory (NWI);
- U.S. Geological Survey (USGS); and
- Site-specific background data provided by the Client, Guman and their consulting Team, including topographic base mapping, site development plans, and other data pertinent to the assessment.

Following the collection and review of existing data and background information, ECOS conducted a field assessment of the Site on June 3, 2024. The purpose of the assessment was to compare background information with present-day conditions, ascertain the physical/ecological characteristics and conditions of the Site, identify potential environmental opportunities and constraints associated with development improvements, and determine the presence/absence and approximate extent of the following features:

- Vegetation Communities
- Natural Landforms;
- Wetland habitat and other waters of the U.S. (i.e., lakes, ponds, streams) regulated under the Clean Water Act;

- Drainages and Riparian Areas; and
- Wildlife habitat, including:
  - Federal listed threatened and endangered species habitat regulated under the Endangered Species Act;
  - Migratory birds and raptors regulated under the Migratory Bird Treaty Act (MBTA) and Bald and Golden Eagle Protection Act (BEGPA).

During the office and on -site assessment ECOS sketched and/or mapped the above features (as applicable) with a GPS on a topographic base map provided by Guman and/or on a Google Earth aerial image of the Site. ECOS utilized GPS to document the boundaries/locations of significant natural features as deemed necessary. Representative photographs were taken to assist in describing and documenting Site conditions.

3.0 ENVIRONMENTAL SETTING

The Site is located in the Southwestern Tablelands Ecological Region (Chapman et al, 2006), which is primarily comprised of sub-humid grassland and semiarid rangeland. More specifically, the Site is located in the Pine-Oak Woodlands sub-region (26i), which is a dissected plain with dense oakbrush and deciduous oak woodlands combined with ponderosa pine woodlands. The southern portion is known locally as the Black Forest. Although woodlands dominate, the region is a mosaic of woodlands and grasslands. It is somewhat more dissected than the surrounding Foothill Grasslands (26j) ecoregion. The Pine-Oak Woodlands may be an outlier of the ponderosa pine woodlands found in the mid-elevation forests of the Southern Rockies (21) to the west. Soils are formed from weathered sandstone and shale with some outwash on uplands. Land use is woodland, wildlife habitat, and some rangeland. Areas of the region are rapidly urbanizing.

The Site is not located within a Colorado Natural Heritage Program (CNHP) Potential Conservation Area (PCA) according to the CNHP database (CNHP, 2024). It is located approximately 0.32-mile west of the CNHP La Foret PCA, which is described as comprising B4 (Moderate Biodiversity Significance).The Black Forest is unique in that it is the only place in Colorado where montane forest grows east of the Front Range and foothills. On vegetation maps, satellite images, and even from the summit of Pikes Peak, this extension of forest into the plains is very conspicuous. The flora and structure of this forest resembles that of the Black Hills in South Dakota, and the area contains many interesting disjunct species. Many of the plant species here are considered "woodland prairie relicts" which were once more common in Colorado and have diminished here due to climatic change. The Black Forest offers these species a refuge in which they can persist, widely disjunct from other populations of the same species. Long-term separation of populations of this sort can lead to allopatric speciation (the formation of new species via geographic isolation from parent populations), and for this and other reasons these disjunct populations are interesting and worthy of conservation attention. The Richardson alum-root (Heucheria richardsonii), prairie goldenrod (Unamia alba), birdfoot violet (Viola pedatifida), and Selkirk's violet (V. selkirkii) are all common elsewhere but rare in Colorado. Although no

occurrences are present in this site, the gay feather (Liatris ligulistylis) is another species that is found in the Black Forest that falls into this category. It prefers open meadows in the Black Forest and appears to have diminished greatly there due to fire suppression and ecosystem transformation. One occurrence of the Southern Rocky Mountain cinquefoil was found during 2000.

No Critical Habitat, Wildlife Refuges or Hatcheries are present in the vicinity of the Site according to the USFWS IPaC Trust Resources Report in Appendix C (USFWS, 2024a).

3.1 Topography / Natural Landform

The topography of the Site generally trends from higher in the south to lower in the north as it abruptly drops off in the Kettle Creek valley. Four (4) deeply incised, ephemeral and steeply sided “badland” tributaries flow through the site from south to north. These short tributaries to Kettle Creek are very distinctive and topographically diverse. The central most tributary ranges from a high elevation of approximately 7,020 feet above mean sea level (AMSL) in the southeastern and southwestern corners to a low elevation of approximately 6,920 feet AMSL in the bed of Kettle Creek along the northwestern border of the Site.

3.2 Soils

ECOS utilized the USDA, Natural Resource Conservation Service (NRCS) Web Soil Survey (USDA, NRCS, 2024) to determine the types of soils present and if hydric soils are present within the Site, as this data assist in informing the presence/absence of potential wetland habitat regulated under the Clean Water Act. Please refer to the Custom Soil Resource Report for the Site in Appendix A.

Pursuant to the Custom Soil Resource Report, the Site is comprised entirely of 41—Kettle gravelly loamy sand, 8 to 40 percent slopes. This soil is found on hills, and its parent material is sandy alluvium derived from arkose. It is somewhat excessively drained and the depth to water table is more than 80 inches. The frequency of flooding and ponding is none. The Kettle gravelly loamy sand is not hydric; however, the minor (less than 1%) inclusion of Pleasant soil is hydric. Please refer to Appendix A.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS, 1994) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part. Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in *Field Indicators of Hydric Soils in the United States* (USDA, NRCS, 2010).

3.3 Vegetation

3.3.1 Ponderosa Pine Forest

A majority (17.38 acres or 71%) of the Site is located above the rim of Kettle Creek. This vegetation community is dominated by ponderosa pine (*Pinus ponderosa*) forest. The understory has a thick layer of pine needle duff with occasional patches of kinnikinnick (*Arctostaphylos urvaursi*), squaw current (*Ribes cereum*), Wood's rose (*Rosa woodsii*), snowberry (*Symphoricarpos* spp.), mountain mahogany (*Cercocarpus montanus*) and common juniper (*Juniperus communis*) in the understory. Forest openings where sunlight penetrates the forest canopy and there is less pine needle duff include occasional patches of Gambel oak (*Quercus gambelii*), chokecherry (*Prunus virginiana*), mountain mahogany and/or grasses and wildflower including, blue grama (*Bouteloua gracilis*), western wheatgrass (*Agropyron smithii*), side-oats grama (*Bouteloua curtipendula*), needle-and-thread (*Stipa comata*), little bluestem (*Andropogon scoparium*), mountain muhly (*Muhlenbergia montana*), and Parry's oatgrass (*Danthonia parryi*), fringed sage (*Artemisia frigida*), clustered field sedge (*Carex praegracilis*), Golden Bean (*Thermopsis rhombifolia*), Rocky Mountain pussytoes (*Antennaria media*), lanceleaf stonecrop (*Sedum lanceolatum*) and Front Range beardtongue (*Penstemon virens*).

3.3.2 Barren Slopes, Gullies and Washes

Approximately 2.39 acres or 10% of the Site consists of barren slopes, gullies and dry streambeds that are tributary to Kettle Creek. These "badland" areas include sparse ponderosa pine, aspen (*Populus tremuloides*), foxtail (*Alopecurus* sp.), dogbane (*Apocynum* sp.), and an occasional yellow willow (*Salix lutea*) and/or sandbar willow (*Salix exigua*).

3.3.3 Riparian Areas

Approximately 3.99 acres or 16% of the Site within the overbank and open grassland meadows of the Kettle Creek floodplain are mesic riparian habitat, containing aspen and ponderosa pine with an understory dominated by smooth brome (*Bromus inermis*) which requires greater soil moisture to thrive.

3.3.3 Wetlands

A minority (0.89 acres or 3%) of the Site between the banks of Kettle Creek is palustrine emergent wetland (PEM) / palustrine shrub-scrub (PSS) wetland. Hydrophytic vegetation in this plant community is dominated by Nebraska sedge (*Carex nebrascensis*), beaked sedge (*Carex rostrata*), water sedge (*Carex aquatilis*), common spikerush (*Eleocharis palustris*), tall flatsedge (*Cyperus eragrostis*), broadleaf cattail (*Typha latifolia*), horsetail (*Equisetum laevigatum*), field horsetail (*Equisetum arvense*) and Baltic rush (*Juncus balticus*), with occasional patches and individual sandbar willow and thinleaf alder (*Alnus incana*) along the outer margins of the wetlands.

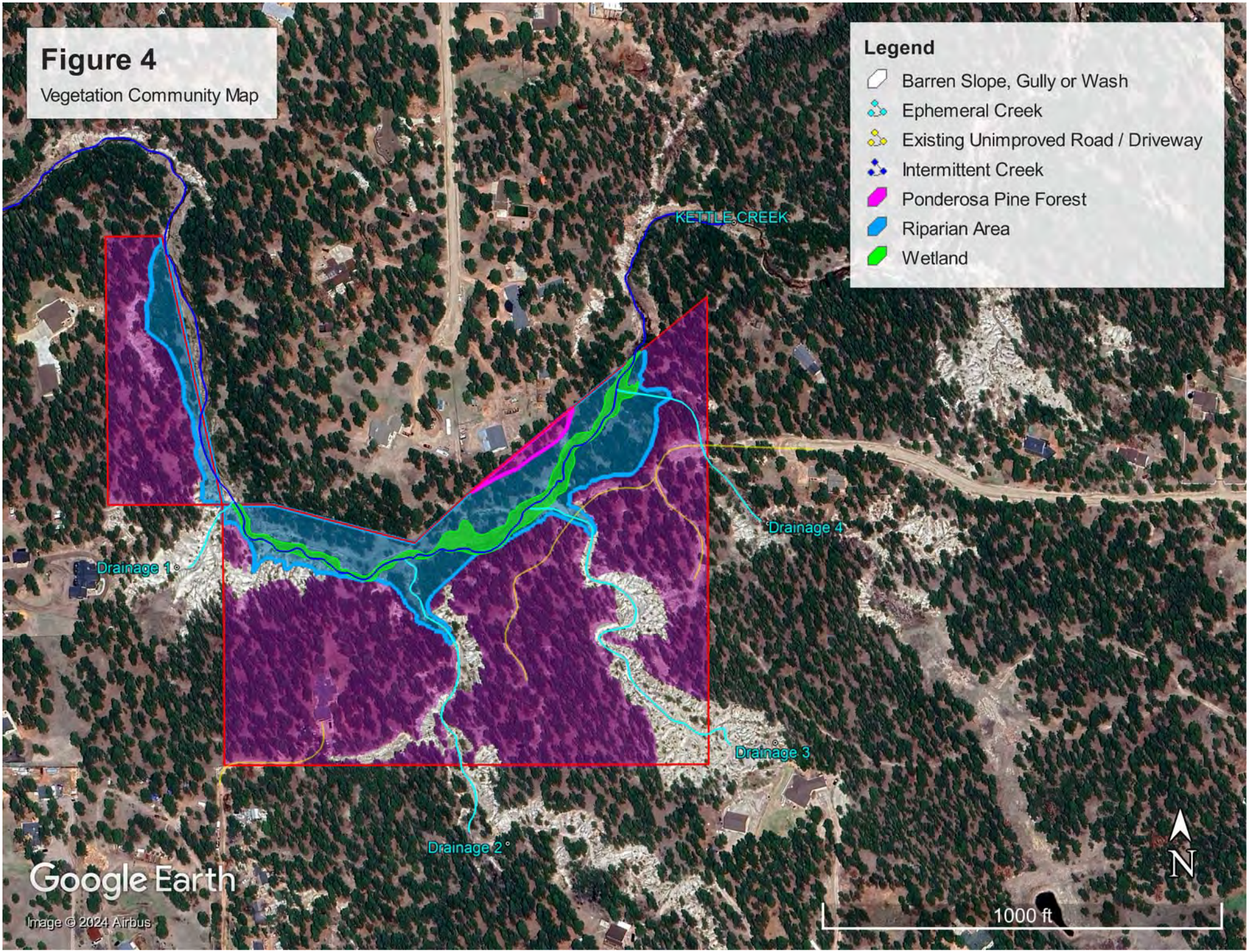


Figure 4
Vegetation Community Map
Legend
Barren Slope, Gully or Wash
Ephemeral Creek
Existing Unimproved Road / Driveway
Intermittent Creek
Ponderosa Pine Forest
Riparian Area
Wetland
KETTLE CREEK
Drainage 1
Drainage 2
Drainage 3
Drainage 4
Google Earth
Image © 2024 Airbus
N
1000 ft

3.4 Wetland Habitat and Waters of the U.S.

3.4.1 Methodology

ECOS utilized the USGS 7.5-minute topographic mapping, historic and current Google Earth aerial photography; the National Wetland Inventory (NWI) Wetlands Mapper (USFWS 2024) and the Colorado Wetland and Information Center – Wetlands Mapper (CNHP, 2024); and detailed Project topographic mapping (if available) to preliminarily identify potential wetland habitat and waters of the U.S. (WOTUS) on the Site. Refer to Figure 5, National Wetland Inventory Map and Figure 6, CNHP Riparian Habitat Map. Additionally, ECOS performed a jurisdictional delineation with a GPS to identify WOTUS boundaries. Refer to Figure 7, Aquatic Resources Map.

The mapping data above was proofed during the field assessment and a delineation was conducted to determine the presence/absence of potential WOTUS.

The USACE wetland delineation methodology was employed to document the three field indicators (parameters) of wetland habitat (i.e., wetland hydrology, hydric soils and a predominance of hydrophytic vegetation as explained in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987) and supplemented by the *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Interim Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Western Mountains, Valleys and Coast Region* (USACE, 2008).

3.4.2 Office Assessment Findings

USGS Mapping: As referenced in *Section 3.1 Topography*, the Site topography generally drains northward toward Kettle Creek. A side-valley of Kettle Creek protrudes southward through the south-central portion of the Site. ECOS presumes that the side-valley in the south-central portion of the Site supports an ephemeral drainage. USGS Map indicates the presence of Kettle Creek, an intermittent stream along the northern border of the Site. Given our extensive history in assessing portions of Kettle Creek, we are aware that its main channel has sufficient hydrology to support both wetland and/or riparian vegetation. Refer to Figure 1, USGS Site Location Map.

Google Earth aerial imagery review: ECOS reviewed the Site using the time-lapse function in Google Earth (GE) to get a look back in time to 1985. In the imagery, it appears that four side-valleys (potential ephemeral drainages) extend northward to Kettle Creek. The western-most drainage (Drainage 1) runs between the western and eastern parcels. Three drainages extend into the eastern parcel: the south-central (Drainage 2), south-eastern (Drainage 3), and the northeastern drainage (Drainage 4).

CNHP National Wetland Inventory (NWI) Wetlands Mapper: The NWI Wetlands Mapper provides planning-scale identification of potential waters and wetlands (WOTUS), and indicates the following:

- The main stem of Kettle Creek is identified as potential Riverine Intermittent Streambed Seasonally Flooded (R4SBC) along the western and eastern portions of the northern border of the Site; and as Riverine Open Water Unconsolidated Bottom Permanently Flooded (R5UBH) central to the R4SBC reaches;
- Drainage 1 is not identified as potential WOTUS;
- Drainage 2 is identified as potential R4SBC;
- Drainage 3 is not identified as potential WOTUS
- Drainage 4 is identified as potential R4SBC.

Refer to Figure 5, National Wetland Inventory Map.

CNHP Riparian Habitat Mapping: CNHP produces photo-interpreted mapping of riparian areas. That CNHP data shows Kettle Creek and Drainage 2 as "Unvegetated". Refer to Figure 6, CNHP Riparian Habitat Map.

USDA NRCS Web Soil Survey: The custom soil report generated for the Site via the NRCS Web Soil Survey (USDA NRCS, 2024) does not identify the Kettle gravelly loamy sand that comprises the entire Site as hydric (wetland) soil. However, the minor (less than 1%) inclusion of Pleasant soil within the Kettle soil is hydric soil. Please refer to Appendix A.

3.4.3 Field Assessment Findings

The field assessment followed the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987), *Interim Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Western Mountains, Valleys and Coast Region* (USACE, 2008), and the *Ordinary High Water Mark Identification Regulatory Guidance Letter* (USACE, 2005) for federal WOTUS; and Colorado House Bill 24-1379 (HB 24-1379) guidance for Waters of the State of Colorado (WOSC). It revealed the presence of one potentially Federal jurisdictional feature, Kettle Creek, an intermittent drainage; and four potentially State jurisdictional features, Drainages 1, 2, 3 and 4, which are all ephemeral drainages (Figure 7, Aquatic Resources Map). However, a final or preliminary jurisdictional determination must be made by the USACE and the State of Colorado.

The potentially jurisdictional features data is summarized below, with an explanation of the field indicators and physical characteristics that should be considered when making a wetland or Ordinary High Water Mark (OHWM) determination and evaluation of whether or not a drainage meets the USACE's relatively permanent flow standard (RPS) for federal jurisdictional waters and/or wetland habitat that were observed and documented by ECOS.

Kettle Creek: Kettle Creek exhibits one or more physical characteristics that indicate that an OWHM is present and that Kettle Creek would be deemed as a jurisdictional water by the USACE under the Clean Water Act (CWA). These indicators include: a natural line impressed on the bank; destruction of terrestrial

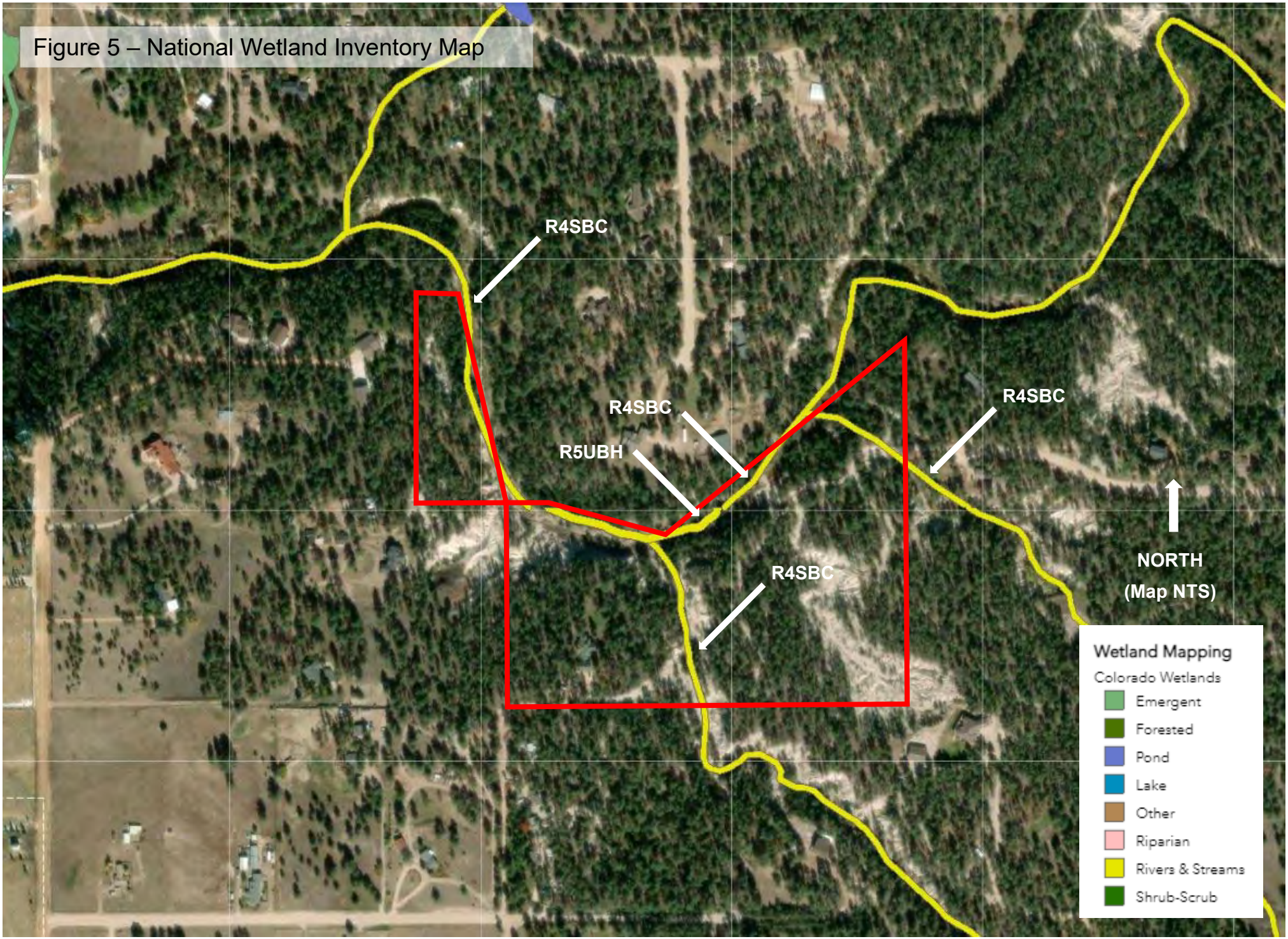
vegetation; presence of litter and debris, debris wracking and drift lines; scour and deposition; an observed flow event; and a defined bed and bank.

Persistent Palustrine Emergent/Palustrine Scrub-Shrub (PEM/PSS) wetland vegetation (hydrophytic vegetation), saturated wetland soil (hydric soil) within the bed and between the banks, and surface water (wetland hydrology) were observed at the time of the assessment which substantiates that Kettle Creek and any wetlands therein would meet the RPS on at least an intermittent basis and would be deemed a jurisdictional WOTUS by the USACE. If a CWA Section 404 Permit is required for any proposed impacts to Kettle Creek, Wetland Determination Forms can be produced documenting the wetland indicators.

Drainages 1 - 4: The four deeply incised drainages that are tributary to Kettle Creek formed as a result of hundreds of years of scour and erosion and appear to only flow in response to extraordinary flood or runoff events. The following physical characteristics of an OWHM are absent in these drainages: a natural line impressed on the bank; destruction of terrestrial vegetation; presence of litter and debris, debris wracking and drift lines; scour and deposition; an observed flow event; and a defined bed and bank. Albeit sparse and patchy, there is mosaic of fairly persistent upland vegetation living in loose sediment, no destruction of terrestrial vegetation, and leaf litter is not disturbed or washed away.

Persistent wetland vegetation (hydrophytic vegetation), saturated wetland soil (hydric soil) within the bed and between the banks, and surface water (wetland hydrology) are absent which substantiates that these drainages, containing no wetlands, are ephemeral (flow only in response to periodic precipitation events) and would not meet the RPS or be deemed as jurisdictional WOTUS by the CWA. These drainages would however be considered jurisdictional by the State of Colorado.

Figure 5 – National Wetland Inventory Map



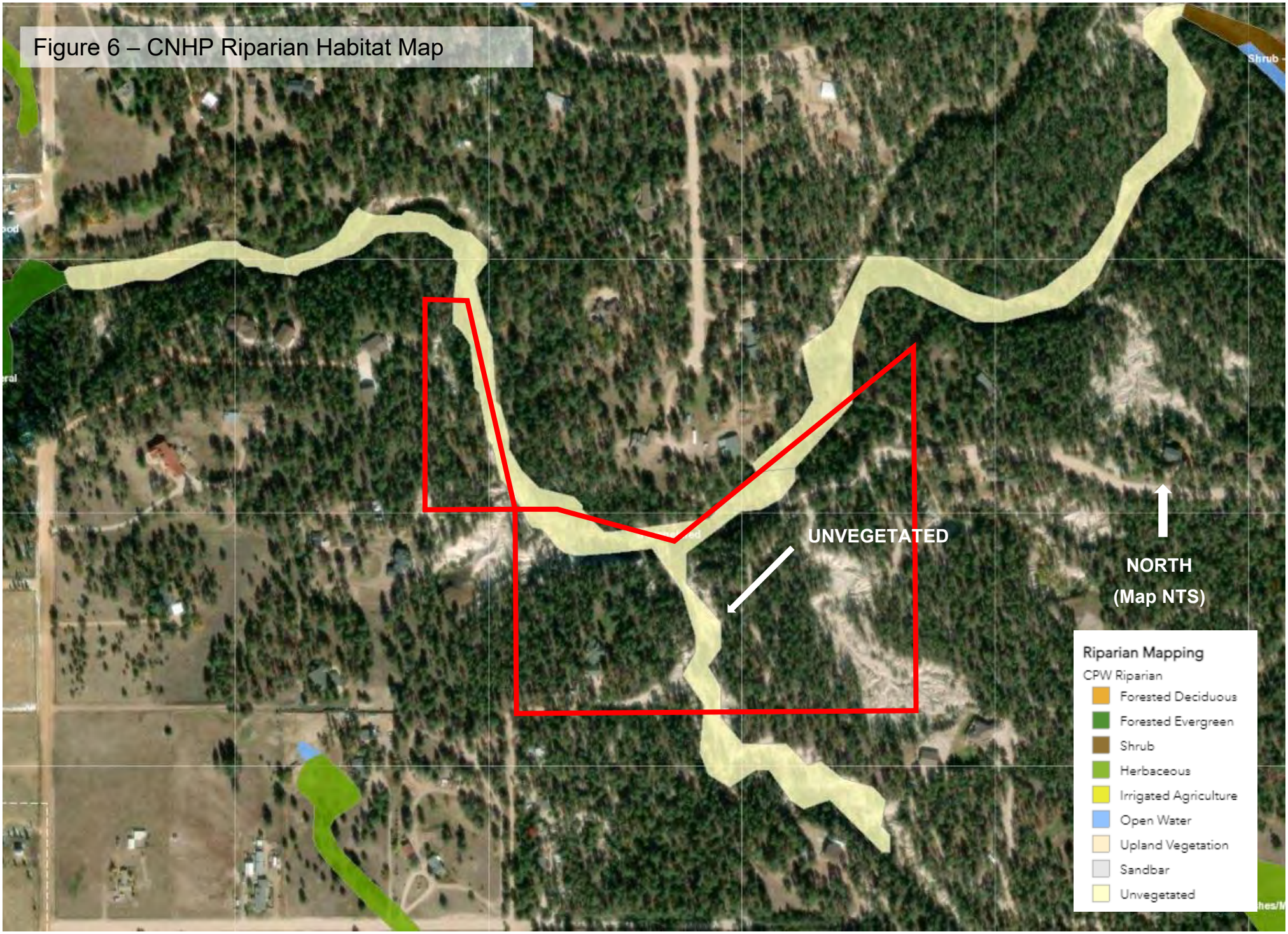
Source: Colorado Natural Heritage Program (CNHP) Wetland Mapper / U.S fish and Wildlife Service National Wetland Inventory (NWI)

3.6 Riparian Habitat

The Colorado Wetland Information Center – Wetlands Mapper (CNHP, 2023) includes the option for illustrating potential riparian habitat based on mapping produced by Colorado Parks and Wildlife (CPW). Refer to Figure 6, CNHP Riparian Habitat Map. The CPW Riparian Habitat mapping indicates that the main stem of Kettle Creek and Drainage 2 are “Unvegetated”. Refer to Figure 6, CNHP Riparian Habitat Map.

During the field assessment ECOS found that the CNHP data is not completely accurate. Persistent Palustrine Emergent/Palustrine Scrub-Shrub (PEM/PSS) wetland is present between the banks of Kettle Creek. Low lying overbank areas within the floodplain support a ponderosa pine, aspen and smooth brome plant community that is indicative of higher, more mesic soil moisture regime. CNHP data regarding the side drainages (Drainages 1-4) is however more consistent as these drainages are mostly unvegetated, consisting of a hard-packed barren valley side slopes with a sparsely vegetated mosaic of sand/sediment, upland grasses, weeds and a few shrubs within the stream bed.

Figure 6 – CNHP Riparian Habitat Map



Source: Colorado Natural Heritage Program (CNHP) Wetland Mapper

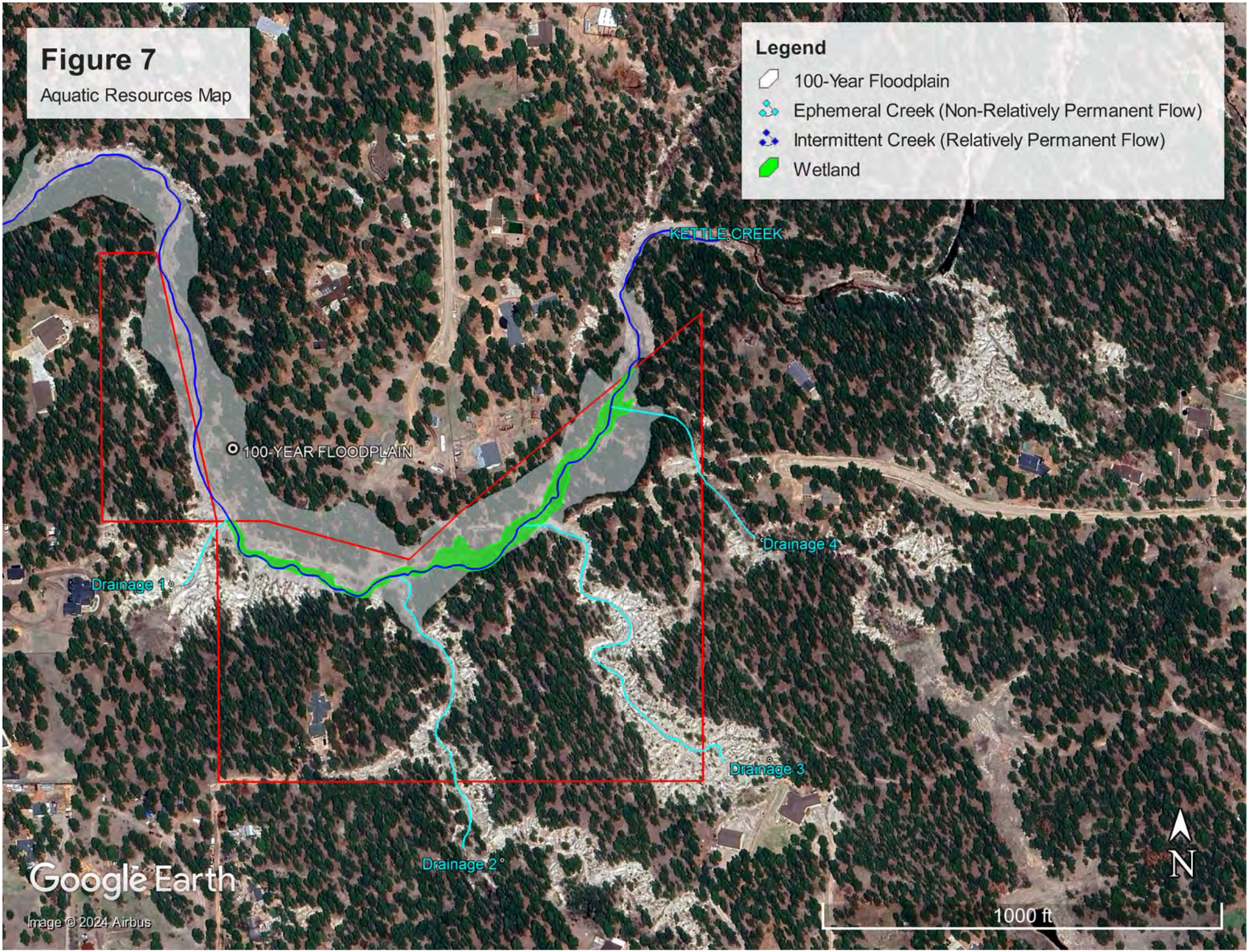


Figure 7
Aquatic Resources Map
Legend
100-Year Floodplain
Ephemeral Creek (Non-Relatively Permanent Flow)
Intermittent Creek (Relatively Permanent Flow)
Wetland
KETTLE CREEK
100-YEAR FLOODPLAIN
Drainage 1
Drainage 2
Drainage 3
Drainage 4
Google Earth
Image © 2024 Airbus
N
1000 ft

3.5 Wildlife

The stated purpose and intent of the “El Paso County Development Standards” wildlife section is to ensure that proposed development is reviewed with consideration of the impacts to wildlife and wildlife habitat, and to implement the provisions of the Master Plan (El Paso County, 2021). The two primary vegetation types within the Site are upland ponderosa pine forest and riparian-wetland herbaceous/shrub-scrub wetland. ECOS has determined that the wildlife impact potential for very low density development of this small Site is expected to be moderate to low. The Site currently provides moderate quality habitat for wildlife. Taken in a regional, watershed or larger landscape context, as more and more of the Black Forest is developed over time, impacts to wildlife are expected to grow to moderate to high as wildlife run out of contiguous space and habitat.

The Site provides habitat for common wildlife species such as deer and black bear which have been reported on the Site by the current occupants. The Site provides foraging and breeding habitat for predators such as coyote and fox. The Site also provides good habitat for reptiles and moderate habitat for amphibians such as Woodhouse toad (*Anaxyrus woodhousii*).

The Site contains no Critical Habitat, Wildlife Refuges or Hatcheries according to the USFWS IPaC Trust Resources Report (USFWS, 2024a) (Appendix C).

The Project proposes to develop small, limited building envelopes within upland ponderosa pine habitat. However, Kettle Creek, its 100-year floodplain and adjacent wetland and riparian habitat will be designated as “Drainage Easement, No Build and No Storage of Materials” areas.

Few noxious weeds were observed on the Site. To ensure that noxious weeds do not become problematic in the future after soil disturbances, residents should learn to identify and control them (hand pulling and disposal and/or herbicides) whenever and wherever observed.

4.0 FEDERAL LISTED SPECIES

A number of species that occur in El Paso County are listed as threatened and endangered (T&E) by the USFWS under the Endangered Species Act (ESA). ECOS compiled the data regarding T&E species for the Site in Table 1 based on the Site-specific, USFWS IPaC Trust Resources Report (USFWS, 2024a) we ran for the Project (Appendix C) and our onsite assessment. ECOS has provided our professional opinion regarding the probability that these species may occur within the Site and their probability of being impacted by the Project.

The likelihood that the Project would impact any of the species listed below is low to none. Most are not expected occur in the project area and no downstream impacts are expected. The USFWS IPaC Trust resource Report (Appendix C) states that there is no Critical Habitat for T&E species in the Site location.

TABLE 1 - FEDERAL LISTED SPECIES POTENTIALLY IMPACTED BY THE PROJECT

Species	Status	Habitat Requirements and Presence	Probability of Impact by Project
FISH			
Greenback cutthroat trout (*Oncorhynchus clarki stomias*)	Threatened	Cold, clear, gravely headwater streams and mountain lakes that provide an abundant food supply of insects.	None. Suitable habitat does not exist on the Site.
Pallid sturgeon (*Scaphirhynchus albus*)	Endangered	Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.	None. The proposed project will not affect any of the listed river basins.
BIRDS			
Eastern Black Rail (*Laterallus jamaicensis ssp. Jamaicensis*)	Threatened	Habitat includes tidally or non-tidally influenced marshes which range in salinity from salt to brackish to fresh. It requires dense overhead perennial herbaceous cover with underlying soils that are moist to saturated (occasionally dry) interspersed with or adjacent to very shallow water (typically ≤ 3 cm). Eastern black rails depend on this dense cover throughout their life cycle and is their primary strategy to avoid predation.	None. Wetland habitat will not be impacted.

TABLE 1 - FEDERAL LISTED SPECIES POTENTIALLY IMPACTED BY THE PROJECT			
Species	**Status**	**Habitat Requirements and Presence**	**Probability of Impact by Project**
Piping plover (*Charadrius melodus*)	Threatened	Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.	None. The proposed project will not affect any of the listed river basins.
MAMMALS			
Preble's meadow jumping mouse (*Zapus hudsonius preblei*)	Threatened	Inhabits well-developed riparian habitat with adjacent, relatively undisturbed grassland communities, and a nearby water source. Well-developed riparian habitat includes a dense combination of grasses, forbs and shrubs; a taller shrub and tree canopy may be present. Has been found to regularly use uplands at least as far out as 100 meters beyond the 100-year floodplain.	Low. Unlikely to occur on Site due to: 1) negative trapping results reported by USFWS are 1-mile west/downstream of the Site along Kettle Creek; and 2) the USFWS Critical Habitat boundary is 0.24-mile downstream/west of the Site along Kettle Creek. Refer to Figure 8 below. 3) wetland/riparian areas in the floodplain provide constituent habitat elements, but little herbaceous and shrub canopy cover, food, shelter or hibernaculum within side drainages and ponderosa pine uplands adjacent to Kettle Creek.

TABLE 1 - FEDERAL LISTED SPECIES POTENTIALLY IMPACTED BY THE PROJECT			
Species	**Status**	**Habitat Requirements and Presence**	**Probability of Impact by Project**
Tricolored Bat (*Perimyotis subflavus*)	Proposed Endangered	During the winter, tricolored bats are often found in caves and abandoned mines, although in the southern United States, where caves are sparse, tricolored bats are often found roosting in road-associated culverts where they exhibit shorter torpor bouts and forage during warm nights. During the spring, summer, and fall, tricolored bats are found in forested habitats where they roost in trees, primarily among leaves of live or recently dead deciduous hardwood trees, but may also be found in Spanish moss, pine trees, and occasionally human structures.	None. This species only needs to be considered if the Project includes wind turbine operations, which it does not.
INSECTS			
Monarch butterfly (*Danaus plexippus*)	Candidate	Multigenerational migrant that breeds throughout North America and overwinters in dense congregations in Mexican montane fir forests. The larval hostplant is milkweed (*Asclepias* spp.). Habitat includes areas with nectar for feeding and/or milkweed for laying eggs, especially grasslands and wetlands. Breeding habitat threats are widespread native grassland loss and herbicide use. In Colorado, they are present in low numbers from May to September.	Very Low. Milkweed is not present. Project impacts will be undetectable relative to threats across this species' huge range. Potential impacts could be mitigated by limiting herbicide use and planting native flowering species, especially milkweed along Kettle Creek.
PLANTS			

TABLE 1 - FEDERAL LISTED SPECIES POTENTIALLY IMPACTED BY THE PROJECT			
Species	**Status**	**Habitat Requirements and Presence**	**Probability of Impact by Project**
Ute ladies'-tresses orchid (*Spiranthes diluvialis*)	Threatened	Primarily occurs along seasonally flooded river terraces, sub-irrigated or spring-fed abandoned stream channels or valleys, and lakeshores. May also occur along irrigation canals, berms, levees, irrigated meadows, excavated gravel pits, roadside borrow pits, reservoirs, and other human-modified wetlands.	None. Wetland habitat will not be impacted. The Site elevation ranges from 7,020 to 6,920 feet AMSL, which is higher than the 6,500-foot upper elevation limit documented for the species and recommended for conducting surveys by the USFWS.

4.1 Preliminary Effects Determination

The USFWS IPaC Trust Resource Report (Appendix C) states that there is no Critical Habitat for T&E species in the Site. Based on the review of USFWS IPaC Trust Resources Report for the Project and our onsite assessment, it is ECOS' professional opinion that the likelihood that the Project would impact any of the species listed above in Table 1 is low to none. Most are not expected to occur in the Project area or on the Site; nor will they be affected by the indirect effects of the project as no downstream impacts to drainage basins supporting these T&E species are expected to affect them in offsite habitat. Therefore, ECOS' has preliminarily determined that the Project would have No Effect on any of the species listed above in Table 1.

PMJM: Although the CPW data illustrate the Site as located in Potentially Occupied PMJM Habitat, these data are not supported by trapping data or field verification. The USFWS PMJM trapping survey results indicate "Trapped Not Found" approximately 1-mile downstream of the Site along Kettle Creek. Primary PMJM habitat (i.e., wetland and riparian habitat within the Kettle Creek floodplain) will not be impacted as these areas and the 100-year floodplain will be designated as "No Build and No Storage of Materials" areas. Secondary habitat consists of ponderosa pine forest with very little understory (mostly pine needle duff) and only occasional, non-contiguous small patches of grassland or dense shrubs exist where sunlight penetrates the tree canopy. Upland grass and shrub patches are generally inaccessible to PMJM as Kettle Creek is located within a deep canyon and there is very little travel corridor cover between primary and secondary habitat along the side drainages connecting Kettle Creek with the uplands. (Refer to representative photos in Appendix B.

4.2 USFWS Concerns Request

This report including ECOS's Preliminary Effects Determination is going to be submitted to the USFWS to request an informal review of the Site and to obtain a list of concerns, if any, including the need to initiate formal consultation under the ESA.

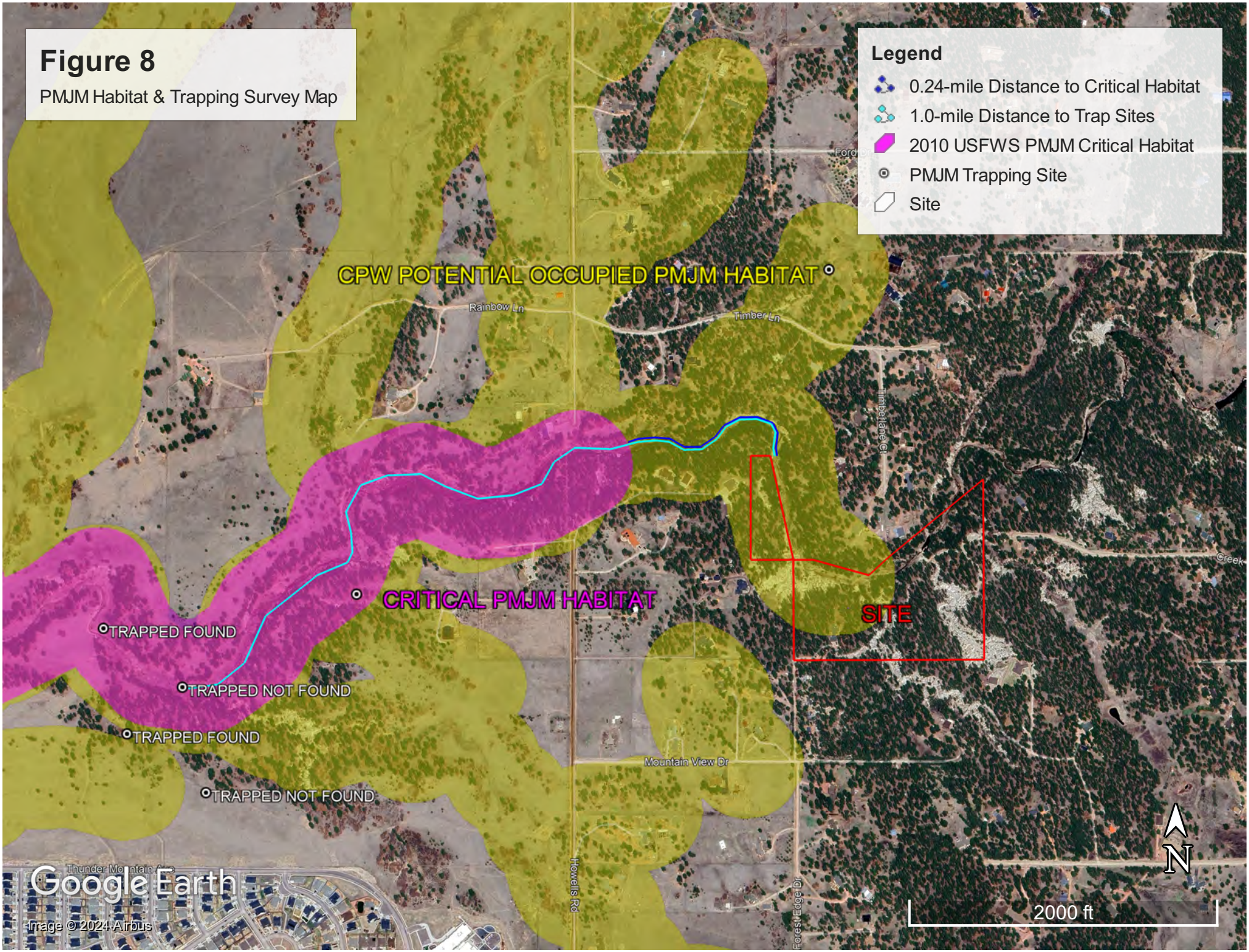


Figure 8
PMJM Habitat & Trapping Survey Map
Legend
0.24-mile Distance to Critical Habitat
1.0-mile Distance to Trap Sites
2010 USFWS PMJM Critical Habitat
PMJM Trapping Site
Site
CPW POTENTIAL OCCUPIED PMJM HABITAT
CRITICAL PMJM HABITAT
SITE
TRAPPED FOUND
TRAPPED NOT FOUND
TRAPPED FOUND
TRAPPED NOT FOUND
Rainbow Ln
Timber Ln
Timberlane Ct
Mountain View Dr
Howells Rd
Forestridge Dr
Thunder Mountain Ave
Google Earth
Image © 2024 Airbus
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2000 ft

5.0 RAPTORS AND MIGRATORY BIRDS

Raptors and most birds are protected by the Colorado Nongame Wildlife Regulations, as well as by the federal Migratory Bird Treaty Act. Additionally, eagles are protected by the Bald and Golden Eagle Protection Act (BGEPA).

5.1 COGCC Database

ECOS utilized the Colorado Oil and Gas Conservation Commissions (COGCC) GIS Online data (https://cogccmap.state.co.us/cogcc_gis_online/) (COGCC, 2024) to screen the Site for potential raptor nests. No raptor nests have been mapped within one mile of the Site (COGCC, 2024). The closest active raptor nest to the Site is a Golden Eagle nest 8.55-miles to the west/southwest of the Site.

5.2 USFWS IPaC Data

The USFWS IPaC data (Appendix C) did not have data available at this time regarding migratory birds or Bald and Golden Eagles.

5.3 Field Assessment

The ponderosa pine, riparian corridors and wetland habitat provide foraging habitat for transient migratory birds. No existing nest sites or prairie dog burrows for raptors, including burrowing owl were found during the Site visit.

6.0 SUMMARY OF IMPACTS

6.1 Vegetation

As described in greater detail above, 17.38 acres out of 24.65 total acres or 71% of the Site consists of ponderosa pine forest. Approximately 3.99 acres out of 24.65 total acres or 16% of the Site within the Kettle Creek floodplain is riparian habitat. 2.39 acres out of 24.65 total acres or 10% of the Site consists of sparsely vegetated barren slopes, gullies and dry streambeds that are tributary to Kettle Creek. 0.89 acres out of 24.65 total acres or 3% of the Site within the banks of Kettle Creek is wetland including intermittent single and multi-thread stream channels. Refer to Figure 4, Vegetation Community Map and Appendix B, Photo Location Map and Representative Photos to better visualize the character of these plant communities.

The ponderosa pine forest will be the only vegetation/habitat type impacted by the proposed development. The proposed residential parcels are all planned to be low-density with structures and septic systems limited to small envelopes. Limited development preserves high quality, native habitat within private lots. Road/driveway access to each individual home site will occur within the footprint of existing roadways/driveways that already cross Drainages 3 and 4 thereby limiting development impacts to only to ponderosa pine forest. Linear infrastructure (e.g., water supply and electrical utilities) will follow existing roadways/driveways. Stormwater detention facilities are not required for individual home sites and therefore there be no impacts to Kettle Creek or

tributaries that could impact riparian or wetland habitat. No impacts are planned in the Kettle Creek floodplain or side drainages that would damage, fragment or otherwise interrupt PMJM behavior or habitat functions if they were to occur in this reach of Kettle Creek. Refer to Figure 9, Habitat Impact Map for “No Build Areas” and Impact Areas.

Stream or bank stabilization of Kettle Creek, if required by the County, would be futile, extraneous, and impact (potential) existing PMJM and wetland habitat; and as such, it is not anticipated to occur. Kettle Creek and its tributaries lie within deeply incised canyons where geomorphological processes such as stream channel migration, erosion, sediment and cliff formation have occurred for millennia and will continue to evolve naturally without any human intervention without posing risks to the loss of property or harm to the health and safety of the public or property.

Soils in this region are gravelly, loamy sands and highly permeable which provide ideal conditions for implementing Low Impact Development (LID) systems and small-scale retention facilities that mimic natural processes that help infiltrate stormwater originating from rooftops and concrete. LID practices such as bioretention facilities, wetland swales, rain gardens, rain barrels and permeable pavements implemented at individual home sites are recommended to help improve water quality through groundwater infiltration and to reduce and delay the quantity and erosive power of stormwater discharging into the landscape.

Ground disturbance/removal of vegetation and exposure of soil instigates the invasion of common and noxious weeds, one of the most detrimental processes to the quality of any kind of habitat. As such, minimization of ground disturbing activities that compact or remove native vegetation during construction is recommended. Thereafter, control of common, noxious weeds and non-native species in all areas (existing or landscaped) should be a priority during and after construction of each home site and as part of the long-term private residence of the Site. If native vegetation is preserved and weeds are managed, the loss of the existing habitat is minimized.

Overall impacts to vegetation communities that provide habitat for wildlife can be offset/mitigated by thoughtful design; restrictions that minimize impacts to ponderosa pine forest and understory through the employment of limited building envelopes; implementation of native planting and seeding “landscape” requirements on private lots; and ongoing weed management.

6.3 Wetland Habitat and Waters

There is one intermittent drainage (Kettle Creek) and 4 ephemeral drainage features (Drainages 1 – 4) on the Site. Because it has relatively permanent flow, it is ECOS professional opinion that Kettle Creek is a jurisdictional WOTUS as regulated by the USACE under the CWA. It is ECOS professional opinion that Drainages 1-4 are jurisdictional Waters of the State of Colorado (WOSC) as regulated by the State of Colorado under HB 24-1379. However, a final or

preliminary jurisdictional determination must be made by the USACE and the State of Colorado.

ECOS delineated the wetland boundaries of Kettle Creek pursuant to current USACE methodology and mapped the flow lines of Drainages 1-4 to assist the Team with Site planning, layout, and design. The Final Plat reflects the measures that the Project Team took to avoid impacts to waters and wetlands (Federal and State.) There will be no impacts and therefore this Final Plan meets the Least Environmentally Damaging and Practicable Alternative (LEDPA) requirements of both Federal law and State law. Refer to Figure 9, Habitat Impact Map for “No Build Areas” and Impact Areas.

6.4 Wildlife

The impact to wildlife is similar to that for vegetation. Elimination of ponderosa pine and/or grassland areas (native or non-native alike) and introduction of human activity in any sort of open space would have an overall negative and landscape-scale impact on wildlife species. The highest quality habitats (i.e., floodplains, riparian areas, and wetlands within Kettle Creek and its tributaries on the Site will be preserved as contiguous open space to help meet the life requisites of wildlife. Ponderosa pine habitat on private lots will be the most impacted by development and therefore efforts should be made to limit development to restricted building envelopes. Weedy areas, if any, or those that may arise as a result of soil disturbance and grading should be managed to restore their health to improve their functional capacity to provide food, cover, and breeding habitat for all obligate prairie species that typically utilize these habitats to meet their life needs. Native landscaping around all residential and commercial structures can benefit wildlife, especially small wildlife including insects, rodents and birds. Management priorities should include weed control and enhancement of existing native vegetation throughout the entire Site to enhance habitat and diversity, including native seeding in areas where forest thinning may be necessary.

6.5 Federal Listed Species

The Site is not located within any officially designated critical habitat, but is located within an area CPW has mapped as potentially occupied habitat for PMJM, a federally designated T&E species. Although the CPW data illustrate the Site as located in Potentially Occupied PMJM Habitat, these data are not supported by trapping data or field verification. The USFWS PMJM trapping survey results indicate “Trapped Not Found” approximately 1-mile downstream of the Site along Kettle Creek. Primary PMJM habitat (i.e., wetland and riparian habitat within the Kettle Creek floodplain) will not be impacted as these areas and the 100-year floodplain will be designated as “No Build and No Storage of Materials” areas. Existing ponderosa pine forest has a very limited shrub and grass elements required to meet the life requisites of PMJM and therefore impacts caused by the development of individual home sites will not impact PMJM or its primary habitat along Kettle Creek. The Final Plat reflects the

measures that the Project Team took to avoid impacts to waters and wetlands (Federal and State) and wildlife habitat. There will be no impacts to important habitat and therefore this Final Plan meets the Least Environmentally Damaging and Practicable Alternative (LEDPA) requirements of both Federal and State law. This report will be provided to the USFWS as informal consultation under the ESA to seek concurrence with its findings or obtain a list of concerns, if any, including the need to initiate formal consultation under the ESA for PMJM.

6.6 Raptors and Migratory Birds

The Project is expected to have a slightly positive impact on raptors and migratory birds. If new home development sites and fire defensive space open up the forest canopy and are landscaped with native grasses and shrubs, the landscape will provide food, cover, nesting and hunting and foraging grounds. Preservation of high value wetlands and riparian areas within the Kettle Creek floodplain and upland ponderosa pine forest will continue to provide habitat for transient raptors and migratory birds. Thinning of ponderosa pine forest and removal of pine duff will also improve grassland and shrub diversity which are now mostly smothered by the forest canopy.

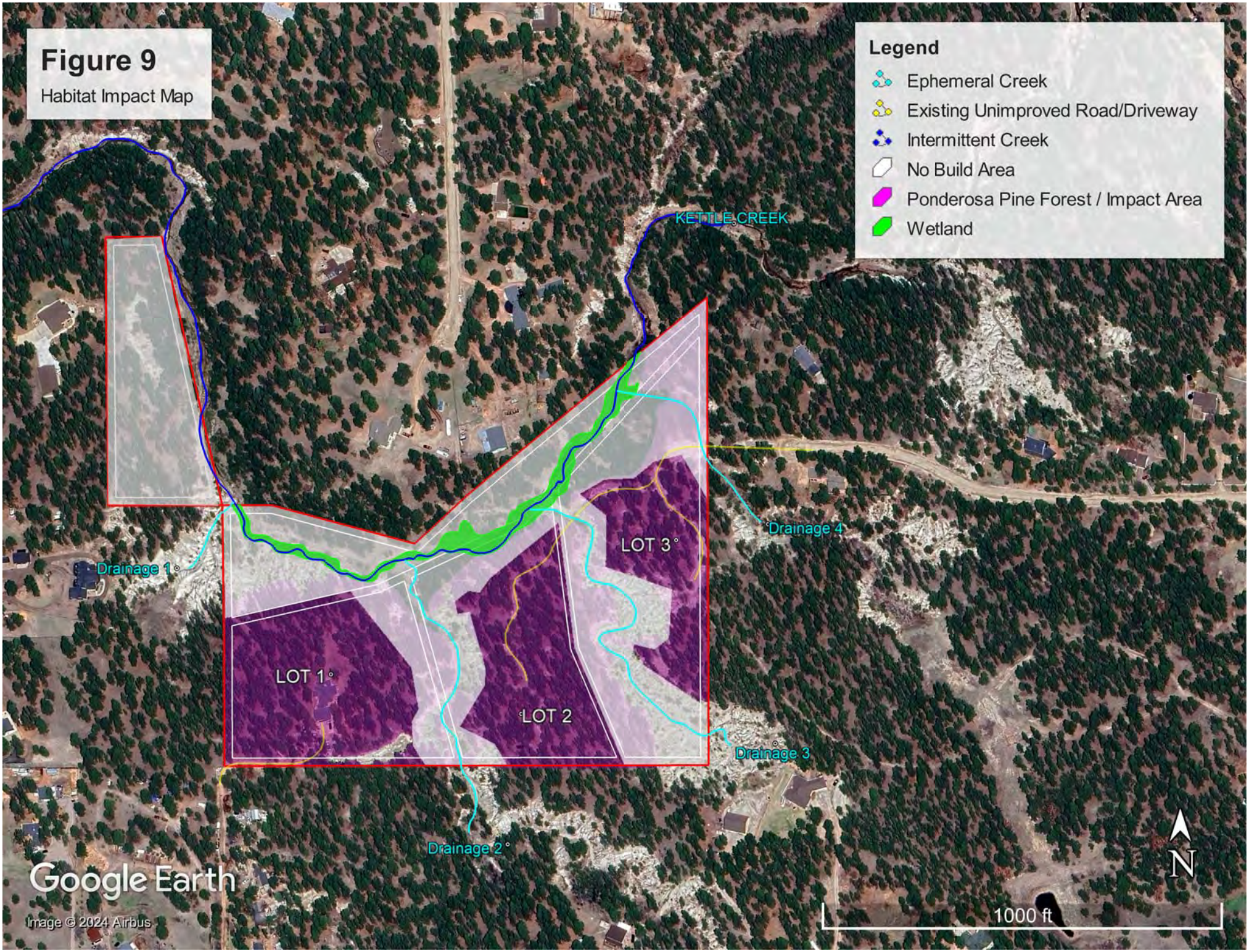
Figure 9
Habitat Impact Map
Legend
Ephemeral Creek
Existing Unimproved Road/Driveway
Intermittent Creek
No Build Area
Ponderosa Pine Forest / Impact Area
Wetland
KETTLE CREEK
Drainage 1
Drainage 2
Drainage 3
Drainage 4
LOT 1
LOT 2
LOT 3
N
1000 ft
Google Earth
Image © 2024 Airbus

7.0 REGULATIONS AND RECOMMENDATIONS

7.1 Clean Water Act and Colorado HB 24-1379

Section 404 of the CWA and Colorado HB 24-1379 prohibit the discharge of dredged or fill material into federal or state jurisdictional waters and wetland habitat without a valid 404 permit or HB 24-1379 authorization. ECOS identified Kettle Creek as a potentially jurisdictional WOTUS that will require a Section 404 permit if discharges of fill or modifications to the creek are proposed. However, the proposed Project avoid impacts by designating Kettle Creek, its 100-year floodplain, and adjacent wetland habitat as “No Build and No Storage of Materials” areas.

Given the current, actively changing regulatory environment at the Federal level (i.e., revision of the definition of WOTUS via the Sackett vs. USEPA Supreme Court decision) it is not feasible to determine with certainty if the drainage(s) on Site will be deemed jurisdictional by the USACE without going through a formal jurisdictional determination or permitting process. However, ECOS is certain that Kettle Creek and associated wetlands, an intermittent stream with relatively permanent flow, would be deemed jurisdictional by the USACE.

In the aftermath of the Sackett decision, the State of Colorado Department of Public Health (CDPHE) Water Quality Control Division (WQCD) has implemented Clean Water Policy 17 (CW-17) under the Colorado’s Water Quality Control Act (WQCA) that complements the CWA. Until Colorado fully develops a State regulatory framework and permitting process under House Bill (HB) 24-1379, Policy CW-17 has been put in place to protect and regulate intermittent and ephemeral water features that do not have relatively permanent flow – tributaries that are excluded from federal jurisdiction. ECOS is certain that Drainages 1-4, which are ephemeral tributaries with no relatively permanent flow, would be deemed jurisdictional by the State of Colorado.

Floodplains, riparian areas, wetlands and streams (perennial, intermittent or ephemeral) provide numerous cultural, ecological and economic functions and values for society, including food and habitat for fish and wildlife, water quality improvement; flood storage; erosion control; economically beneficial natural products for human use; open space for recreation and education; and views and aesthetic qualities that improve real estate sales and values. Regardless of jurisdictional status, the floodplain, water ways and wetlands present on Site should be preserved to achieve these functions and values. Any impacts to Federal or State regulated waters and wetland habitat required to implement grading, building of structures, utility lines, access roads and driveways should be avoided and minimized to the maximum extent possible to preserve these features and reduce permit and mitigation requirements. In the absence of a Final Site Plan, this Final Plat appears to avoid such impacts which lead to the conclusion that no CWA or HB 24-1379 permitting will be required at a Federal or State level. A Final Site Plan is required to determine if this will remain the case.

7.2 Endangered Species Act

The Site is not located within any officially designated critical habitat but is located within an area CPW has mapped as potentially occupied habitat for PMJM, a federally designated T&E species. Although the CPW data illustrate the Site as located in Potentially Occupied PMJM Habitat, these data are not supported by trapping data or field verification. Refer to Figure 8, PMJM Habitat and Trapping Survey Map. This report including ECOS's Preliminary Effects Determination (i.e., no impact/no effects) is going to be submitted to the USFWS for informal consultation under the ESA to seek concurrence with its findings or to obtain a list of concerns, if any, including the need to initiate formal consultation under the ESA for PMJM.

Please note the following standard response from the USFWS in regard to ESA concurrence or clearance: *"If you (the project proponent) have determined that your project will have no effect to listed species or their habitat, or if suitable habitat for a listed species does not occur within your project area, you may not receive any further response or notification from us, as neither section 7 of the Endangered Species Act of 1973, as amended (ESA; 16 U.S.C 1531 et seq.), nor implementing regulations under section 7 of the ESA, require us to review or concur with projects where "no effect" determinations have been made".* This means that the USFWS may or may not comment or concur with ECOS' effects determination as documentation of ESA compliance, regardless of the Project being constructed, funded or permitted by a federal agency or requests for ESA concurrence by the County or FEMA.

7.3 Migratory Bird Treaty Act & Bald and Golden Eagle Protection Act

No raptor nests have been mapped within one mile of the Site (COGCC 2024) and no migratory bird nests were observed within the Site. The closest active raptor nest to the Site is a Golden Eagle nest 8.55-miles to the west/southwest of the Site (COGCC 2024). Given the seasonal and transitory nature of migratory birds and raptors, ECOS recommends a nesting bird survey immediately prior to any construction activity to identify any new nests within the Site or within the CPW recommended buffers of the Site. Construction activities should be restricted during the breeding season near any newly identified migratory bird nests.

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Appendix A

USDA Custom Soil Resource Report

United States Department of Agriculture

NRCS

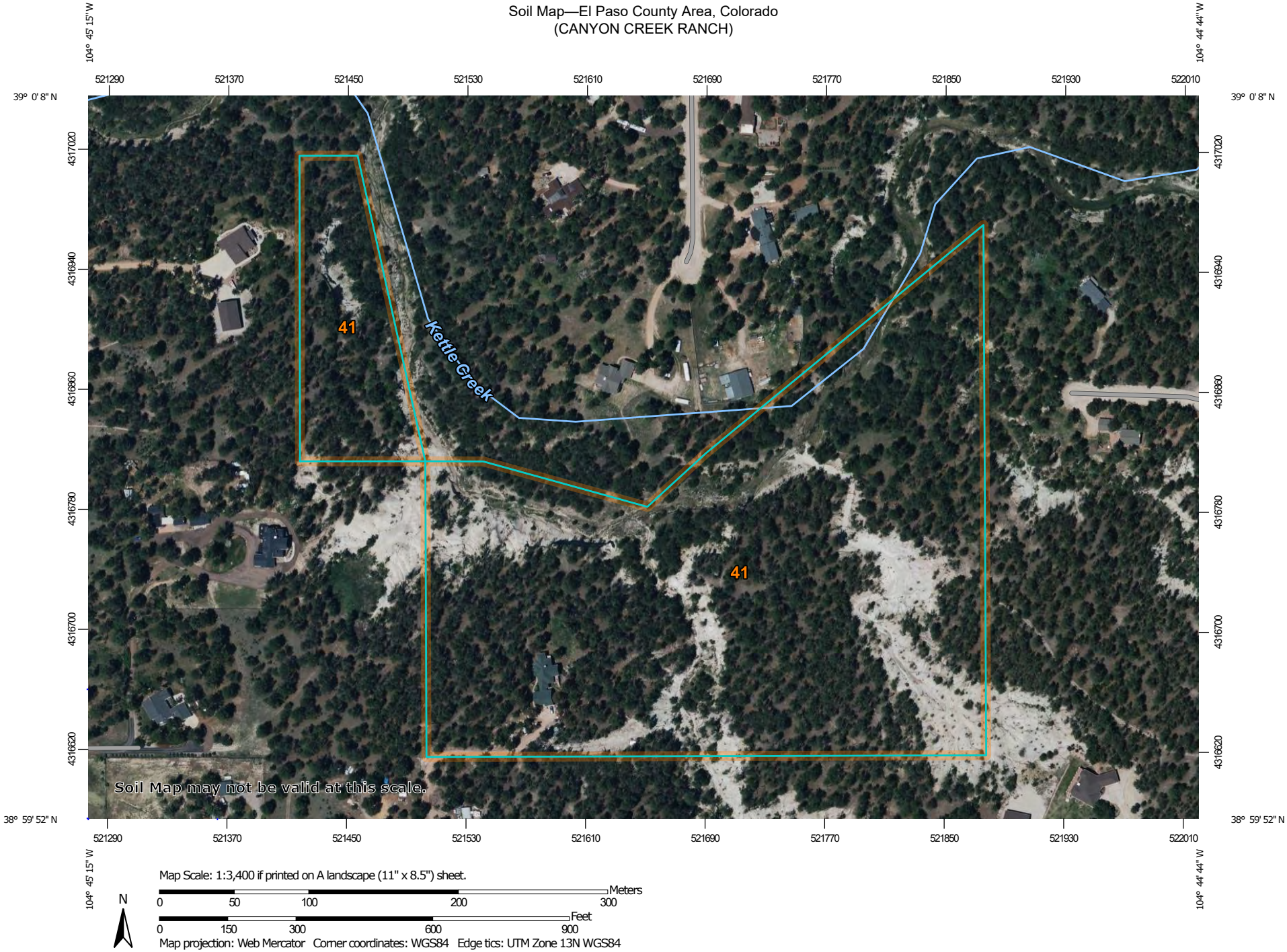
Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for El Paso County Area, Colorado

May 30, 2024

Soil Map—El Paso County Area, Colorado
(CANYON CREEK RANCH)



Map Scale: 1:3,400 if printed on A landscape (11" x 8.5") sheet.

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Meters: 0 50 100 200 300

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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

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

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

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

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

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

Soil Survey Area: El Paso County Area, Colorado
Survey Area Data: Version 21, Aug 24, 2023

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

Date(s) aerial images were photographed: Jun 9, 2021—Jun 12, 2021

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
41	Kettle gravelly loamy sand, 8 to 40 percent slopes	24.6	100.0%
Totals for Area of Interest		**24.6**	**100.0%**

El Paso County Area, Colorado

41—Kettle gravelly loamy sand, 8 to 40 percent slopes

Map Unit Setting

National map unit symbol: 368h
Elevation: 7,000 to 7,700 feet
Farmland classification: Not prime farmland

Map Unit Composition

Kettle and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kettle

Setting

Landform: Hills
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy alluvium derived from arkose

Typical profile

E - 0 to 16 inches: gravelly loamy sand
Bt - 16 to 40 inches: gravelly sandy loam
C - 40 to 60 inches: extremely gravelly loamy sand

Properties and qualities

Slope: 8 to 40 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: F048AY908CO - Mixed Conifer
Hydric soil rating: No

Minor Components

Other soils

Percent of map unit:
Hydric soil rating: No

Pleasant

Percent of map unit:
Landform: Depressions
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: El Paso County Area, Colorado
Survey Area Data: Version 21, Aug 24, 2023

Appendix B

Photo Location Map and Representative Photos

PHOTO LOCATION MAP
(Representative photos taken on 6/3/2024)

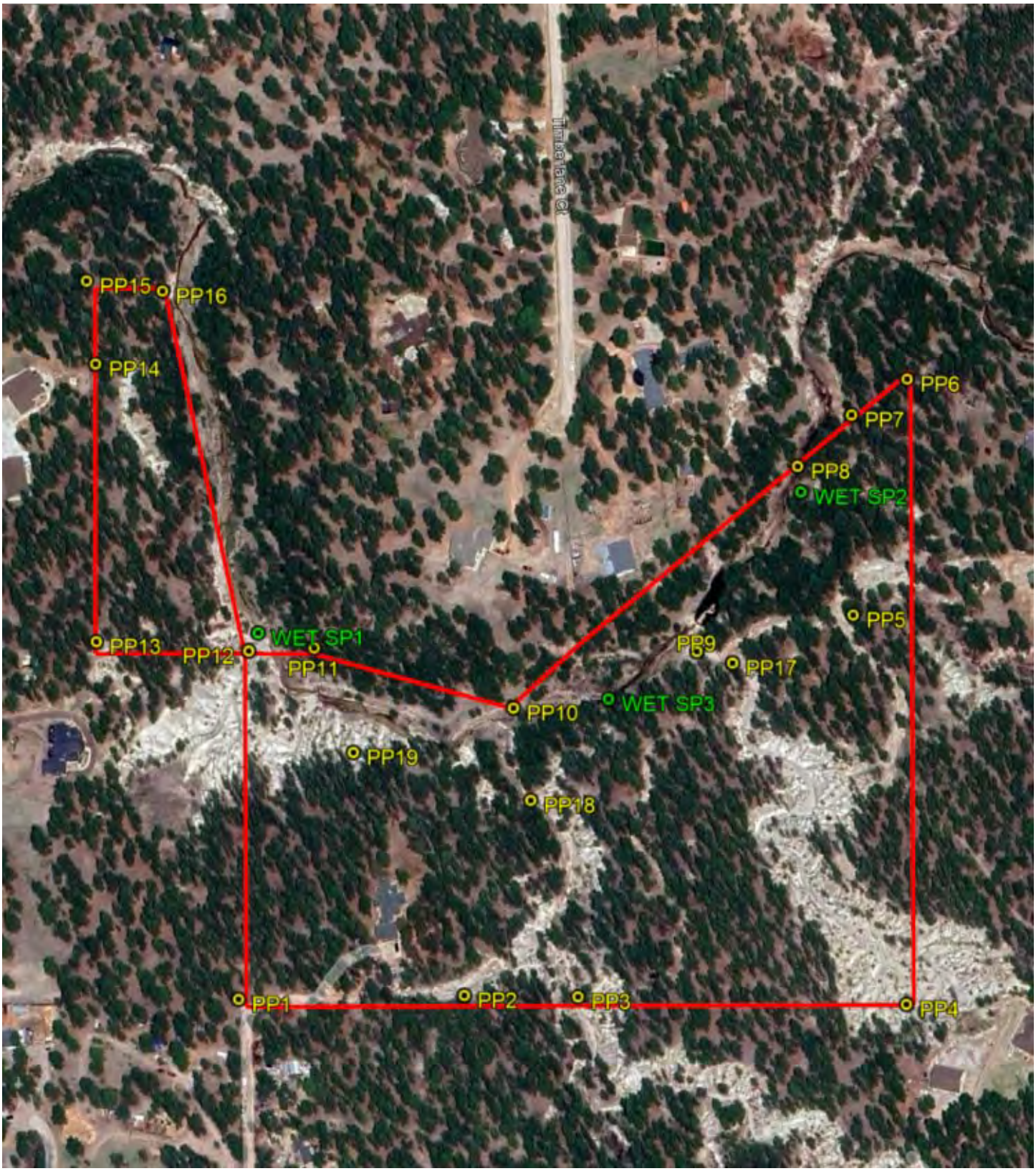

Photo Point 1 – View east of driveway to existing house and ponderosa pine forest along the south property line.

Photo Point 1 –View north of ponderosa pine forest along the west property line.

Photo Point 2 – View west of ponderosa pine forest and upper reach of dry tributary to Drainage 2 along the south property line.

Photo Point 2 – View north of ponderosa pine forest along rim of upper reach of dry tributary to Drainage 2.

Photo Point 2 – View east of ponderosa pine forest and upper reach of dry tributary to Drainage 2 along the south property line.

Photo Point 3 – View south and upstream (offsite) of upper reach of Drainage 2.

Photo Point 3 – View north and downstream (onsite) of upper reach of Drainage 2.

Photo Point 4 – View west of Drainage 3 “badlands” along the south property line.

Photo Point 4 – View north and downstream of Drainage 3 “badlands” along the east property line.

Photo Point 5 – View south (upslope) of existing road and adjacent ponderosa pine forest.

Photo Point 5 – View west (cross slope) of existing road and adjacent ponderosa pine forest.

Photo Point 5 – View north (cross slope) of open area within ponderosa pine forest. The east entrance/exit to the site the other side of this hill (to the right).

Photo Point 6 – View south of ponderosa pine forest along east property line.

Photo Point 6 – View southwest of ponderosa pine forest along north property line. Kettle Creek is in the background.

Photo Point 7 – View northeast (upstream and offsite) of Kettle Creek and adjacent ponderosa pine forest along north property line.

Photo Point 7 – View southwest (downstream and onsite) of Kettle Creek and adjacent ponderosa pine forest along north property line.

Photo Point 8 – View northeast (upstream) of Kettle Creek and adjacent ponderosa pine forest.

Photo Point 8 – View east across Kettle Creek wetlands toward mouth of Drainage 4.

Photo Point 8 – View southwest (downstream) of Kettle Creek and adjacent ponderosa pine forest.

Photo Point 9 – View northeast (upstream) of wetlands and boulder grade control structure (historic open water pond) on Kettle Creek and adjacent ponderosa pine forest. Drainage 3 drops sediment in this location.

Photo Point 9 – View southeast (upstream) of Drainage 3 near confluence with Kettle Creek.

Photo Point 9 – View southwest (downstream) of Kettle Creek wetlands and adjacent ponderosa pine forest. Drainage 3 drops sediment in this location.

Photo Point 9 – View northwest across Kettle Creek and ponderosa pine forest within floodplain.

Photo Point 10 – View northeast of ponderosa pine forest within Kettle Creek floodplain.

Photo Point 10 – View south across Kette Creek (down-cutting in this location) of ponderosa pine forest within toward mouth of Drainage 2.

Photo Point 10 – View southwest of ponderosa pine forest within Kettle Creek floodplain.

Photo Point 11 – View southeast of ponderosa pine forest within Kettle Creek floodplain along north property line.

Photo Point 11 – View south of ponderosa pine forest across Kettle Creek floodplain toward mouth of Drainage 1.

Photo Point 11 – View northwest (offsite) of ponderosa pine within Kettle Creek floodplain.

Photo Point 12 – View southeast (upstream and onsite) of Kettle Creek floodplain and adjacent barren slopes, gullies and washes from the intersection of Parcels 1 and 2.

Photo Point 12 – View southwest of Drainage 1 and adjacent “badlands” from intersection of Parcels 1 and 2.

Photo Point 12 – View north (downstream and offsite) of Kettle Creek floodplain and adjacent barren slopes, gullies and washes from the intersection of Parcels 1 and 2.

Photo Point 12 – View northeast of Kettle Creek floodplain and ponderosa pine forest from intersection of Parcels 1 and 2.

Photo Point 13 – View north of ponderosa pine forest from the southwest corner of Parcel 2.

Photo Point 13 – View east of ponderosa pine forest from the southwest corner of Parcel 2.

Photo Point 14 – View north of ponderosa pine forest (and sporadic shrub patches) perched high above Kettle Creek along west boundary of Parcel 2.

Photo Point 14 – View east of ponderosa pine forest toward Kettle Creek (far below the surface shown here).

Photo Point 14 – View south of ponderosa pine forest perched high above Kettle Creek along west boundary of Parcel 2.

Photo Point 15 – View east of ponderosa pine forest from the northwest corner of Parcel 2.

Photo Point 15 – View south of ponderosa pine forest (and occasional shrub patch) from the northwest corner of Parcel 2.

Photo Point 16 – View south of Kettle Creek (offsite) and adjacent ponderosa pine forest perched high above the floodplain from the northeast corner of Parcel 2.

Photo Point 16 – View west of ponderosa pine forest toward northwest corner of Parcel 2.

Photo Point 17 – View upstream of Drainage 3 from existing access road.

Photo Point 17 – View southwest (perpendicular to Drainage 3) of existing access road.

Photo Point 17 – View downstream of Drainage 3 near confluence with Kettle Creek from existing access road.

Photo Point 18 – View upstream of Drainage 2.

Photo Point 18 – View downstream of Drainage 2 near confluence with Kettle Creek.

Photo Point 19 – Overview (upstream) of Kettle Creek valley showing floodplain, creek, wetlands and ponderosa pine forest in the floodplain and above the barren cliffs and slopes.

Photo Point 19 – Overview (downstream) of Kettle Creek valley showing floodplain, creek, wetlands and ponderosa pine forest in the floodplain and above the barren cliffs and slopes.

Photo Point WET SP1 – View upstream of Kettle Creek and associated wetlands at downstream end of the Site at Wetland Sample Point 1.

Photo Point WET SP1 – View downstream of Kettle Creek and associated wetlands at downstream end of the Site at Wetland Sample Point 1.

Photo Point WET SP2 – View upstream of Kettle Creek and associated wetlands at upstream end of the Site at Wetland Sample Point 2.

Photo Point WET SP2 – View across Kettle Creek and associated wetlands at upstream end of the Site at Wetland Sample Point 2.

Photo Point WET SP2 – View downstream of Kettle Creek and associated wetlands at upstream end of the Site at Wetland Sample Point 2.

Photo Point WET SP2 – View of Kettle Creek and associated wetlands near the confluence with Drainage 1 at upstream end of the Site from Wetland Sample Point 2.

Photo Point WET SP3 – View upstream of Kettle Creek and associated wetlands at Wetland Sample Point 3.

Photo Point WET SP3 – View south across Kettle Creek toward cliff face at Wetland Sample Point 3.

Photo Point WET SP3 – View downstream of Kettle Creek and associated wetlands at Wetland Sample Point 3.

Photo Point WET SP3 – View north of Kettle Creek floodplain (opposite of the cliff) at Wetland Sample Point 3 where shrubby vegetation is the densest.

Appendix C

USFWS IPaC Trust Resource Report

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 Paso County, Colorado

Local office

Colorado Ecological Services Field Office

(303) 236-4773
(303) 236-4005

MAILING ADDRESS
Denver Federal Center
P.O. Box 25486
Denver, CO 80225-0486

PHYSICAL ADDRESS
1 Denver Federal Center
Bldg 25 Room W1911}
Denver, CO 80225-0001

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 species[1] 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 Fisheries[2]).

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. IPaC only shows species that are regulated by USFWS (see FAQ).
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:

Mammals

NAME	STATUS
Preble's Meadow Jumping Mouse *Zapus hudsonius preblei* Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4090	Threatened
Tricolored Bat *Perimyotis subflavus* Wherever found This species only needs to be considered if the following condition applies: • This species only needs to be considered if the project includes wind turbine operations. No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

Birds

NAME	STATUS
Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis* Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10477	Threatened
Piping Plover *Charadrius melodus* This species only needs to be considered if the following condition applies: • Project includes water-related activities and/or use in the N. Platte, S. Platte, and Laramie River Basins which may affect listed species in Nebraska. There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6039	Threatened

Fishes

NAME	STATUS
Greenback Cutthroat Trout Oncorhynchus clarkii stomias Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2775	Threatened
Pallid Sturgeon Scaphirhynchus albus Wherever found This species only needs to be considered if the following condition applies: • Project includes water-related activities and/or use in the N. Platte, S. Platte, and Laramie River Basins which may affect listed species in Nebraska. No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7162	Endangered

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Ute Ladies'-tresses Spiranthes diluvialis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2159	Threatened

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.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

Bald and Golden Eagle information is not available at this time

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence 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). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles 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 Rapid Avian Information Locator (RAIL) Tool.

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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

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:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

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 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 list of migratory birds that potentially occur 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 Rapid Avian Information Locator (RAIL) Tool.

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 or migrating in my 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 query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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.

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 (NWI)

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.

This location overlaps the following wetlands:

RIVERINE

R4SBC
R5UBH

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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 tuberficid 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.