RE: Application for Conditional Use Permit for "Shooting Range" on Parcel: S0128131400

While the applicant is submitting this application for a conditional use permit the applicant does not share Ada County's opinion that a conditional use permit is necessary and applicant does not believe it has violated the county code in its use of its private property.

This detailed letter conforms to the requirements set forth by Ada County Development Services Conditional Use Checklist (ACC 8-5B).

The project consists of using the private property parcel identified above for the purposes of safely enjoying recreational shooting (a "Shooting Range") by the landowner and all invited guests of whatever nature and kind, and any and all other outdoor recreational purpose. Proposed improved areas will be as shown on the site plan attached and incorporated herein. The proposed locations both adhere to the same standards below, both exceed 600 yards to any public property and to the nearest neighbor and are nearly 1 mile to any neighborhood, all separated by impenetrable dirt hills exceeding 100 hundred feet above the proposed areas.

Such improved areas for a Shooting Range (each a "Recreational Area"), specifically the backstops into which participants discharge firearms consists of rubber tires and dirt which fully stop and capture any projectile discharged in the Recreational Area. The Recreational Area includes dirt backstops in 360 degrees which additionally acts as sound abatement. The ground in the Recreational Area is covered by artificial turf which is used as weed abatement and erosion and fire control. Addressing fire concern, the Recreational Area is supplied with fire extinguishers strategically located thereon and in addition to primarily using paper targets, only lead core ammunition and AR550 steel targets are permitted to eliminate potential projectile impact sparking. No steel core ammunition or tracers are permitted. With dirt backstops and turf underfoot instead of weeds and brush, fire danger from use of the Recreational Area is minimal.

Additional associated uses of the Recreational Area are any recreational purposes of any and all kind without limitation.

Addressing the Master Site Plan Checklist:

- there are no proposed structures;
- see below for hours of operation;
- no required parking stalls are necessary, the site is an earthen hill and valley;
- there is no well or septic located nearby;
- there is no hydrant or fire apparatus or pressurized irrigation nor is any required;
- no hydrology is required as water runoff will continue as it does currently without interruption;
- no soils investigation is required as no structure is proposed and no work is proposed that will disrupt soils;
- vegetation will continue to grow as before;
- there are no sensitive plant and existing wildlife species in the area to be disturbed;
- there are no historic resources, hazardous areas, and no additional impact beyond historic farming impacts;
- no landscaping is required, no additional or new plantings, vegetation, fences, or sound walls beyond natural existing earthen hills over 145 feet high; and

- no lighting will be installed.

Addressing the 8-5-3-105 Standards, the parcel is outside the Snake River birds of prey nature area. The site plan designates such berms, backstop, target backstop area, and shooting "platforms." The design of the Recreational Area restricts projectiles discharged in the course of ordinary fire from leaving the range because of the 360-degree protection by the extraordinarily high ground surrounding the Recreational Area.

Applicant hereby provides the following as written documentation that the backstops conform to the standards for outdoor ranges in the NRA Range Source Book, moreover, the target backstops exceed the standard for outdoor ranges as provided by the NRA Range Source Book: the Range Source Book states that backstops may be natural hill, earthen berms or commercial bullet traps; here, natural hills and earthen berms are used. Further, the Range Source Book states that the heights for backstops may reach up to 20 feet; here, backstops exceed 20 feet in height. The backstops at the Recreational Area conform to or exceed the safety standards of the NRA Range Source Book.

Written BATF approval is unobtainable as outdoor shooting ranges fall (i) outside of their jurisdiction and (ii) outside of the scope of their operations and therefore the requirement to obtain such approval by the code is a legal impossibility. Moreover, the applicant will not manufacture, sell, or store firearms on site. If there are questions related to this requirement, Mr. Axel Kappes of the BATFE may be reached at (208) 488-2062 or axel.kappes@atf.gov.

The Recreational Area may be used during any hours of any day; however, the discharge of firearms will be closely monitored and generally limited to the reasonable hours of 8 a.m. to 8 p.m.. Any discharge of firearms outside of these hours will be an exception to the general use and will be done with suppression. Days of use for the Recreational Area, including discharge of firearms, may be each day of the week. The hours of use for the Recreational Area shall be all hours, though discharge of firearms is limited as discussed above. Duration of use shall be generally less than 3 hours on a continuous basis; general use of the Recreational Area shall continue into perpetuity or until the landowner determines the parcel is better suited for a different use, as desirable in its sole discretion. If future use is patterned on present use, discharge of firearms will be limited to the hours indicated above and limited to fewer than 4 days a week in that capacity, and generally less than 0.05% of hours in any given week.

CONDITIONAL USE CHECKLIST (ACC 8-5B)

A Conditional Use Request requires a **public** hearing

GENERAL INFORMATION:

Applicant:	DESCRIPTION	Staff:
✓	**MASTER APPLICATION FORM**	
✓	**DETAILED LETTER** by the applicant fully describing the request or project and addressing the following:	
	✓ Explain the proposed use, and all uses associated with the request	
	✓ Any supporting information	
	✓ Address the standards in ACC 8-5-3 for proposed use(s).	
	✓ Days of Use.	
	✓ Hours of Use.	
	✓ Duration of Use (s).	
✓	**MASTER SITE PLAN (if required)**	
✓	**NEIGHBORHOOD MEETING CERTIFICATION**	
	PRE-APPLICATION CONFERENCE NOTES	
NA	**SITE PLAN** is not required if associated with a MSP	
	NA Show existing and proposed structures	
	NA Submit one electronic copy drawn to scale	
NA	**ADDITIONAL APPLICATION SUBMITTAL CHECKLIST** required for the following uses:	
	NA **CONTRACTOR'S YARD OR SHOP** (ACC 8-5-3-31)	
	NA **DANGEROUS OR PROTECTED ANIMALS** (ACC 8-5-3-33)	
	NA **DRIVE-UP WINDOW SERVICE** (ACC 8-5-3-35)	
	NA **EXPLOSIVE MANUFACTURING STORAGE** (ACC 8-5-3-42)	
	NA **FLAMMABLE SUBSTANCE STORAGE** (ACC 8-5-3-45)	
	NA **MANUFACTURE OR PROCESSING OF HAZARDOUS CHEMICALS OR GASES** (ACC 8-5-3-64)	
	NA **MEATPACKING FACILITY** (ACC 8-5-3-69)	
	NA **PROCESSING PLANTS FOR AGRICULTURAL OR DAIRY PRODUCTS** (ACC 8-5-3-84)	
	NA **SEPTAGE TREATMENT AND DISPOSAL FACILITY, PRIVATE** (ACC 8-5-3-104)	
	NA **STORAGE FACILITY, SELF-SERVICE AND STORAGE FACILITY, SELF-SERVICE – OUTDOOR ONLY** (ACC 8-5-3-109)	
	NA **TOWER OR ANTENNA STRUCTURE, COMMERCIAL** (ACC 8-5-3-114)	
	MUST COMPLY WITH SIGN POSTING REGULATIONS (ACC 8-7A-5)	

	APPLICATION FEE: **$800** (base fee) **+ .12/square foot** (for all proposed structures) *NOTE: Building, Engineering, and Surveying applications and fees may be required and are **separate** from Planning & Zoning Applications and Fees.*	

Supplementary information at the discretion of the Director or County Engineer may be required to sufficiently detail the proposed development within any special development area, including but not limited to hillside, planned unit development, floodplain, southwest, WUFI, Boise River Greenway, airport influence, and/or hazardous or unique areas of development.

Application will not be accepted unless all applicable items on the form are submitted. This application shall not be considered complete until staff has received all required information.

CONDITIONAL USE – SUPPLEMENTAL APPLICATION CHECKLIST

(to be completed & submitted by the applicant)

CONTRACTOR'S YARD OR SHOP (ACC 8-5-3-31)			
NA	**Provide the following information:**		
NA		The proximity of existing dwellings	
NA		Number of employees:	
NA		Hours and Days of Operation:	
NA		Number and Type of Vehicles:	
NA		Dust mitigation, if applicable	
NA		Noise mitigation	
NA		Outdoor Loading:	
NA		Traffic and circulation	
NA		Landscaping and Screening	
DANGEROUS OR PROTECTED ANIMALS (ACC 8-5-3-33)			
Endangered Or Protected Species Research Facility:			
NA	**Conceptual Development Plan** (in lieu of Master Site Plan):		
NA		Existing structures/buildings, uses, parking layout, facilities and traffic circulation	
NA		Calculations of existing and required parking for each existing structure and/or use	
NA		The general location of proposed new structures and/or uses and their required parking facilities in relation to existing or proposed traffic circulation patterns	
NA		Any existing easements or rights of way within one hundred feet (100') of the conceptual area of development	
NA		The maximum requested level of residential development	
NA		The maximum square footage requested for any ancillary use(s)	
NA		The location and capacities of firefighting resources on site	
NA		The location of wells, septic systems, and/or reserve septic systems, if applicable	
NA	**Detailed Letter:**		
NA		Proposed Use(s)	
NA		List of proposed allowed ancillary use(s)	
NA		List of proposed ancillary use(s) allowed by conditional use	
NA		A written statement describing the off street parking and loading plan	
NA		Approval of Central District Health for the ancillary use, if applicable	
NA		Statement explaining how the ancillary use conforms to the approved conceptual development plan, if applicable	
DRIVE-UP WINDOW SERVICE (ACC 8-5-3-35)			
NA	Identify the stacking lane, menu and speaker location (if applicable), and window location on the master site plan.		
EXPLOSIVE MANUFACTURING STORAGE (ACC 8-5-3-42)			
NA	Written documentation from the appropriate fire authority approving the proposed location and plan specifications of the facilities.		
NA	Include maps and engineering drawings showing proposed drainage, proposed sewer system design, the depth of the water table, soil composition, all existing surface water, and all existing uses within one-fourth (¼) mile of the property.		
NA	Furnish evidence that the dangerous characteristics of the particular process or activity in question have been or shall be eliminated or minimized sufficiently so as to not create a public nuisance or be detrimental to the public health, safety, or welfare.		
FLAMMABLE SUBSTANCE STORAGE (ACC 8-5-3-45)			

NA	Written documentation from the appropriate fire authority approving the proposed location and plan specifications of the facilities.		
NA	Include maps and engineering drawings showing proposed drainage, proposed sewer system design, the depth of the water table, soil composition, all existing surface water, and all existing uses within one-fourth (¼) mile of the property.		
NA	Furnish evidence that the dangerous characteristics of the particular process or activity in question have been or shall be eliminated or minimized sufficiently so as to not create a public nuisance or be detrimental to the public health, safety, or welfare.		
MANUFACTURE OR PROCESSING OF HAZARDOUS CHEMICALS OR GASES (ACC 8-5-3-64)			
NA	Written documentation from the appropriate fire authority approving the proposed location and plan specifications of the facilities.		
NA	Include maps and engineering drawings showing proposed drainage, proposed sewer system design, the depth of the water table, soil composition, all existing surface water, and all existing uses within one-fourth (¼) mile of the property.		
NA	Furnish evidence that the dangerous characteristics of the particular process or activity in question have been or shall be eliminated or minimized sufficiently so as to not create a public nuisance or be detrimental to the public health, safety, or welfare.		
MEATPACKING FACILITY (ACC 8-5-3-69)			
NA	Written documentation that the proposed facility meets any applicable federal, state, or local standards regarding such use including, but not limited to, those of the environmental protection agency, the U.S. department of agriculture, central district health department, and Idaho department of water resources.		
PROCESSING PLANTS FOR AGRICULTURAL OR DAIRY PRODUCTS (ACC 8-5-3-84)			
NA	Written documentation that the proposed facility meets any applicable federal, state, or local standards regarding such use including, but not limited to, those of the environmental protection agency, the U.S. department of agriculture, central district health department, and Idaho department of water resources.		
SEPTAGE TREATMENT AND DISPOSAL FACILITY, PRIVATE (ACC 8-5-3-104)			
NA	**Detailed Letter:**		
NA		Description of the surrounding area within one mile of the subject site including the proximity of existing residential dwellings.	
NA		Number and frequency of anticipated deliveries from outside companies dumping septage.	
NA		Anticipated quantity (in gallons) of septage to be accepted.	
NA		Parking (one for every employee and one for every 1000 square feet of gross floor area.	
NA		Hours and days of operation	
NA		Description of the disposal method(s), including, but not limited to: evaporative lagoon(s), land application, or subsurface discharge (interment), and proposed location of disposal.	
NA		Description of the proposed substance(s) being treated and its source(s), the method(s) of treatment, monitoring methods, and the ability of the site to support the proposed use.	
NA		Storage and screening method for materials to be used to process solid waste (i.e., woodchips) and location of storage goods.	
STORAGE FACILITY, SELF-SERVICE AND STORAGE FACILITY, SELF-SERVICE – OUTDOOR ONLY (ACC 8-5-3-109)			
NA	**Provide the following information:**		
NA		Proximity of existing dwellings	
NA		Number of vehicles anticipated to be stored upon the property	
NA		Hours of operation	
NA		Dust mitigation proposal, if applicable	

NA		Noise mitigation proposal	
NA		Traffic and circulation	
NA		Landscaping and screening	
TOWER OR ANTENNA STRUCTURE, COMMERCIAL (ACC 8-5-3-114)			
NA	**Suitability Analysis:**		
		Description of surrounding area within one (1) mile of subject site, including topography.	
		Propagation Charts (transmission coverage at the subject site & within an area large enough to provide understanding of why the facility needs to be placed at the chosen location).	
NA	**Signed Lease Agreement**		
NA	**Equipment Storage Areas** – Show approximate location of equipment storage areas on the site plan. Provide approximate square footages of equipment storage structures.		
NA	**Engineering Data:**		
		Showing the tower is designed structurally, electrically, and in all other respects to accommodate both the applicant's equipment and comparable equipment for a minimum of one additional user if the tower is over twenty feet (20') in height. If the tower is over one hundred ten feet (110') in height, it shall be designed structurally, electrically, and in all other respects to accommodate both the applicant's equipment and comparable equipment for a minimum of two (2) additional users)	
NA	**Report** from a qualified and licensed professional engineer that describes the facility height and design that documents the height above grade for the recommended mounting position for collocated antennas and the minimum separation distances between antennas. - Include a structure cross section - Structure elevation		
NA	**Letter of Intent** (Committing the facility owner and successor to allow the shared use of the facility)		
NA	**Written Analysis** (Demonstrating the facility cannot be accommodated on an existing or approved tower within:		
		A two (2) mile radius for towers with a height over 110-feet	
		A one (1) mile radius for towers with a height over 80-feet	
		A one-half (½) mile radius for towers with height over 50-feet	
		A one-fourth (¼) mile radius for towers with height of 50-feet or less	
NA	**Written demonstration** that proposed facility cannot be accommodated on an approved tower or structure within the required search radius due to one or more of the following reasons:		
		Unwillingness of a property owner, or tower or facility owner to entertain shared use	
		Planned equipment would exceed structural capacity of the existing tower or structure, as documented by a qualified and licensed professional engineer, and the existing tower or facility structure cannot be reinforced, modified, or replaced to accommodate planned or equivalent equipment at a reasonable cost	
		The planned equipment would cause radio interference with material impacting the usability of other existing or planned equipment at the tower or structure, and the interference cannot be prevented at a reasonable cost as documented by a qualified and licensed professional engineer or other professional qualified to provide necessary documentation	
		Existing or approved towers or other structures within the search radius cannot accommodate the planned equipment at a height necessary to be commercially functional as documented by a qualified and licensed professional engineer or other professional qualified to provide necessary documentation	
		The proposed collocation with an existing tower or structure would be in violation of a local, state, or federal law	
		Any other unforeseen reasons that make it unfeasible to collocate upon an existing or approved tower or structure as documented by a qualified and licensed professional engineer, or other professional qualified to provide necessary documentation.	

RECEIVED
JUN 13 2025
ADA COUNTY DEVELOPMENT SERVICES

MASTER APPLICATION/PETITION

ADA COUNTY DEVELOPMENT SERVICES
Mailing: 200 W. Front Street, Boise, ID 83702 **Website:** adacounty.id.gov **Phone:** 208-287-7900 **Fax:** 208-287-7909

PROJECT #: 20250185 - CUU-MSP
RECEIVED BY: Cmhinton
PLANNING/GIS FEES: CUU-MSP - 800.00 350.00
DATE: June 13, 2025
ENGINEERING FEES: —
DATE STAMPED: ☑

REQUIRED SUBMITTALS FOR ALL APPLICATIONS:

- ☑ DEED or evidence of proprietary interest
- ☑ APPLICATION SPECIFIC CHECKLIST(S)
- ☑ One (1) electronic copy of all required application submittal documents.

ADMINISTRATIVE APPLICATIONS:

- ☐ ACCESSORY USE
- ☐ DRAINAGE PLAN
- ☐ EXPANSION NONCONFORMING USE
- ☐ FARM DEVELOPMENT RIGHT
- ☐ FLOODPLAIN PERMIT
- ☐ HILLSIDE DEVELOPMENT
- ☐ HIDDEN SPRINGS ADMINISTRATIVE
- ☐ HIDDEN SPRINGS SPECIAL EVENT
- ☐ LANDSCAPE PLAN
- ☐ LIGHTING PLAN
- ☐ MASTER SITE PLAN
- ☐ ONE-TIME DIVISION
- ☐ PLANNED UNIT DEVELOPMENT (PUD)
- ☐ PRIVATE ROAD
- ☐ PROPERTY BOUNDARY ADJUSTMENT
- ☐ SIGN PLAN
- ☐ TEMPORARY USE

HEARING LEVEL APPLICATIONS:

- ☑ CONDITIONAL USE
- ☐ DEVELOPMENT AGREEMENT
- ☐ PLANNED COMMUNITIES
- ☐ SUBDIVISION, PRELIMINARY
- ☐ SUBDIVISION, SKETCH PLAT
- ☐ VACATION
- ☐ VARIANCE
- ☐ ZONING MAP AMENDMENT
- ☐ ZONING TEXT AMENDMENT

HEARING LEVEL PETITION:

- ☐ COMPREHENSIVE PLAN MAP OR TEXT AMENDMENT PETITION CHECKLIST

ADDENDA ITEMS:

- ☐ ADMINISTRATIVE MODIFICATION
- ☐ APPEAL
- ☐ DEVELOPMENT AGREEMENT MODIFICATION
- ☐ REVIEW REQUEST
- ☐ FINAL PLAT
- ☐ TIME EXTENSION (ADMINISTRATIVE)
- ☐ TIME EXTENSION (HEARING)

OVERLAY DISTRICTS: Some Overlays require a separate checklist. All require additional information:

- ☐ BOISE AIR TERMINAL AIRPORT INFLUENCE AREAS (ACC 8-3A)
- ☐ BOISE RIVER GREENWAY (ACC 8-3G)
- ☐ FLOOD HAZARD (ACC 8-3F)
- ☐ HILLSIDE DEVELOPMENT (ACC 8-3H)
- ☐ PLANNED UNIT DEVELOPMENT (ACC 8-3D)
- ☐ SOUTHWEST PLANNING AREA (ACC 8-3D)
- ☑ WILDLAND-URBAN FIRE INTERFACE (ACC 8-3B)

SITE INFORMATION:

Section: 28 & 27 Township: 5N Range: 2E Total Acres: 558
Subdivision Name: NA Lot: NA Block: NA
Site Address: 2250 W Ovada Ranch Rd City: Boise
Tax Parcel Number(s): S0128131400
Existing Zoning: RP Proposed Zoning: RP Area of City Impact: NA

PLEASE PRINT ALL INFORMATION CLEARLY & LEGIBLY!

VERSION: APRIL 2022

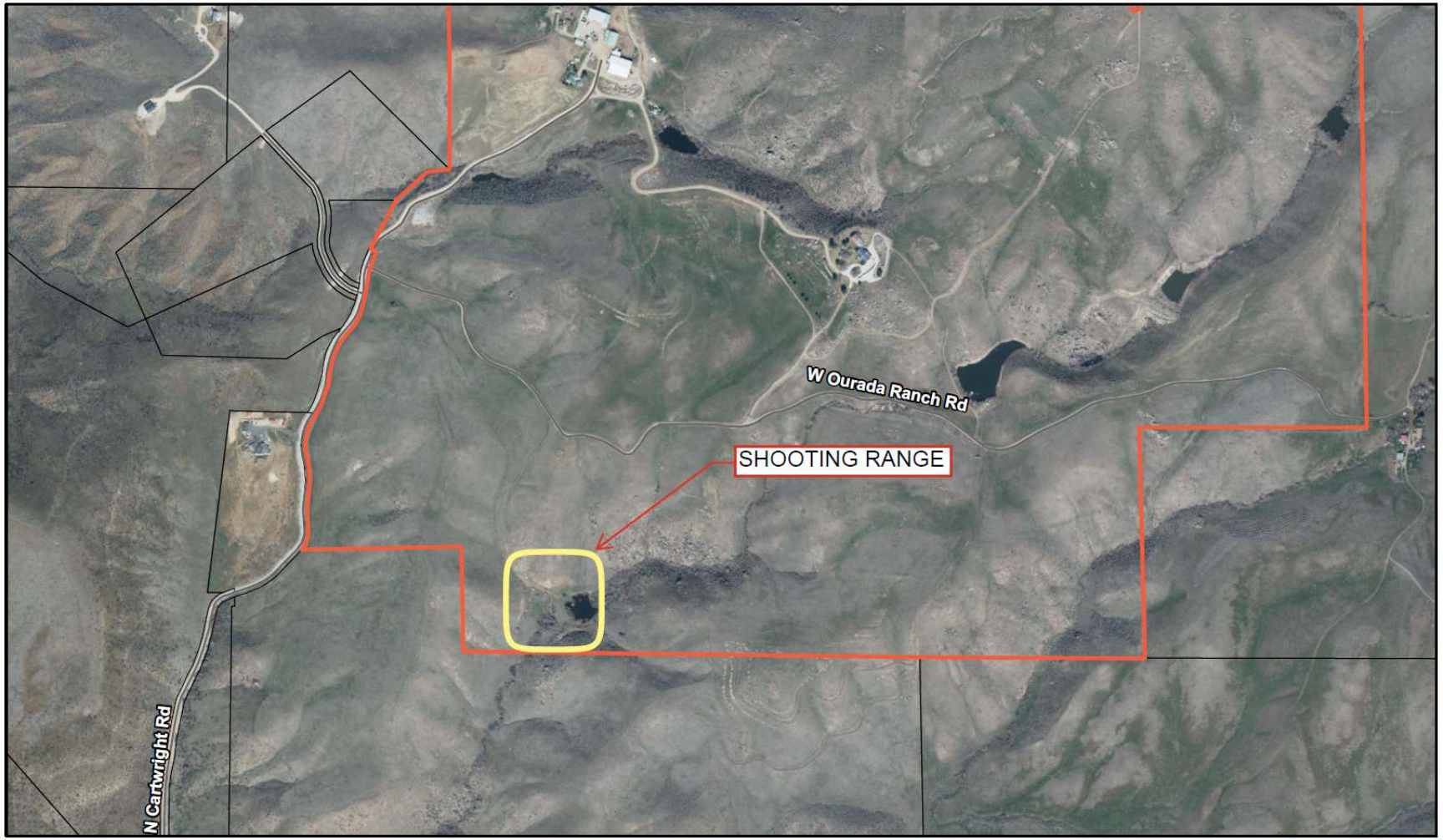
APPLICANT/AGENT:	ADDITIONAL CONTACT, *if applicable*:
Company Name (*if applicable*): Seven Gates Investments LP	Company Name (*if applicable*):
Applicant Name:	Applicant Name:
Address: PO Box 86	Address:
City: Meridian State: ID Zip: 83680	City: State: Zip:
Telephone: 208 870 0795 Fax:	Telephone: Fax:
Email: mike@sevengatesinvestments.com	Email:
I certify this information is correct to the best of my knowledge.	**ENGINEER/SURVEYOR,** *if applicable*:
	Company Name (*If applicable*): NA
	Name:
	Address:
10/3/24	City: State: Zip:
Signature: (Applicant) Date:	Telephone: Fax:
	Email:

OWNER(S) OF RECORD:	OWNER(S) OF RECORD:
Company Name (*if applicable*): Seven Gates Investments, LP	Company Name (*if applicable*):
Owner Name (*or authorized representative/agent, see below**):	Owner Name (*or authorized representative/agent, see below**):
Address: PO Box 86	Address:
City: Meridian State: ID Zip: 83680	City: State: Zip:
Telephone: 208 870 0795 Fax:	Telephone: Fax:
Email: mike@sevengatesinvestments.com	Email:
I consent to this application, I certify this information is correct, and allow Development Services staff to enter the property for related site inspections. I understand that as the property owner of record I will be required to enter into a Development Agreement with Ada County, either personally or on behalf of the entity owning the property, in the event this application includes a request for a Zoning Map Amendment. I agree to indemnify, defend and hold Ada County and its employees harmless from any claim or liability resulting from any dispute as to the statements contained in this application or as to the ownership of the property, which is the subject of the application.	I consent to this application, I certify this information is correct, and allow Development Services staff to enter the property for related site inspections. I understand that as the property owner of record I will be required to enter into a Development Agreement with Ada County, either personally or on behalf of the entity owning the property, in the event this application includes a request for a Zoning Map Amendment. I agree to indemnify, defend and hold Ada County and its employees harmless from any claim or liability resulting from any dispute as to the statements contained in this application or as to the ownership of the property, which is the subject of the application.
6/3/25	
Manager, Seven Gates Investment LP	
Signature: All Owner(s) of Record Date	Signature: All Owner(s) of Record Date

ALL OWNER(S) OF RECORD (ON THE CURRENT DEED) MUST SIGN
(Additional signature pages are Available Online, if needed)

*If the property owner(s) are a business entity, include business entity documents, including those that indicate the person(s) who are eligible to sign documents.

RECEIVED
By Alison Crist at 2:57 pm, Jun 17, 2025



Street Names
Ada County Boundary
Parcels

City Limits

CITY

BOISE	BOISE
EAGLE	EAGLE
GARDEN CITY	GARDEN CITY
KUNA	KUNA
MERIDIAN	MERIDIAN
STAR	STAR

0 0.34 mi

Date: 6/16/2025

N W E S

This map is a user generated static output from an internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

RECEIVED
By Alison Crist at 2:57 pm, Jun 17, 2025

Natural Features Analysis

Hydrology: The U.S. Fish & Wildlife Service Map shows freshwater ponds, streams, and creeks on the subject property. These streams are tributaries to Currant Creek and McFarland Creek, which are tributaries to Dry Creek. (See the attached National Wetlands Inventory Map).

Soils: The soil types within and near the vicinity of the property are Brownlee-Robbscreek-Whisk complex, 8 to 35 percent slopes; Robbscreek-Dobson-Brownlee complex, 25 to 65 percent slopes; Cartwright-Brownlee Robbscreek complex, 25 to 65 percent slopes; Dobson-Roney complex, 35 to 90 percent slopes; Hillcreek-Hovelton-Hann complex, 25 to 65 percent slopes; Yad-Cranegulch-Duco complex, 4 to 25 percent slopes; and Aradaran-Yad complex, 4 to 25 percent slopes. (See the attached Soils Map and Reports).

Topography: The subject property has a varied topography. Most of the site has slopes that exceed 15%. (See the attached Topography Map).

Vegetation: The majority of the site consists of dryland forbs, grasses, and shrubs. There is limited riparian vegetation near the ponds and streams and there is residential landscaping near the homes on the property.

Sensitive Plant & Wildlife Species: See the attached IPaC resource list report.

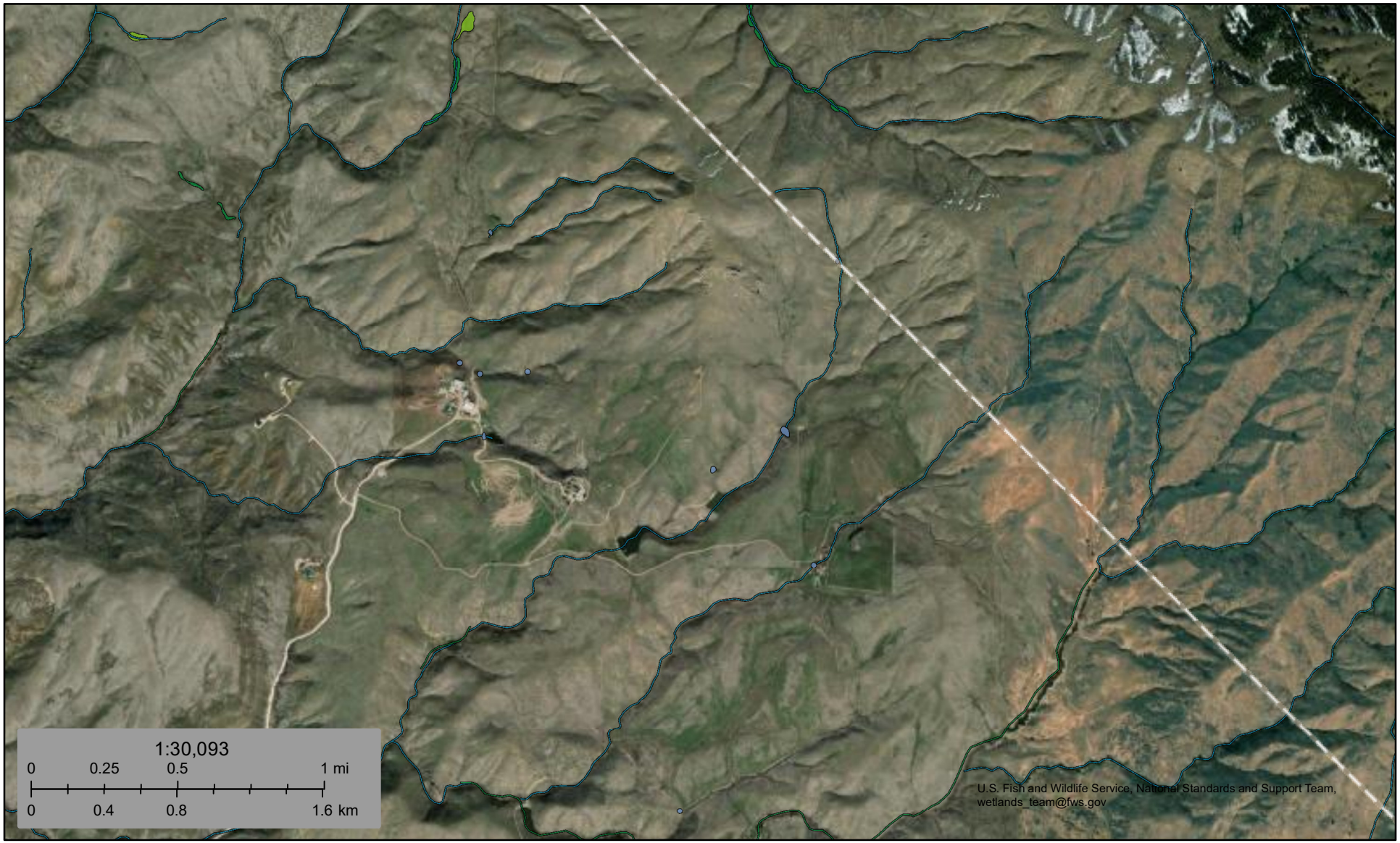
Historic Resources: N/A

Hazardous Areas: N/A

Impact on Natural Features: Minimal impact due to the limited size of the proposed use area.

U.S. Fish and Wildlife Service
National Wetlands Inventory

Wetlands Map

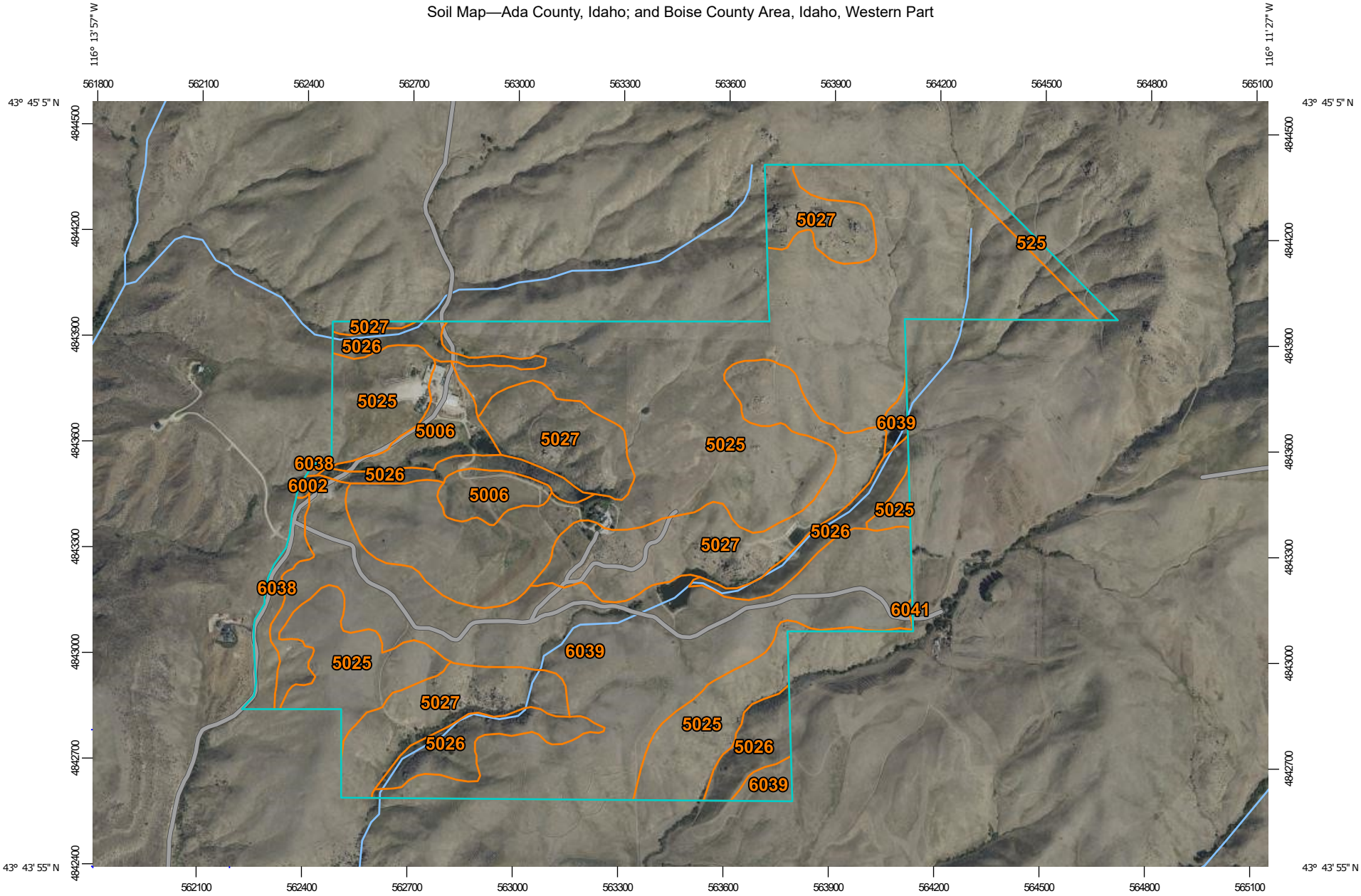


June 17, 2025

Wetlands

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

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



Map Scale: 1:15,300 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 200 400 800 1200

Feet: 0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N 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.

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: Ada County, Idaho
Survey Area Data: Version 12, Aug 23, 2024

Soil Survey Area: Boise County Area, Idaho, Western Part
Survey Area Data: Version 12, Aug 22, 2024

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

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

Date(s) aerial images were photographed: Sep 9, 2023—Sep 14, 2023

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
5006	Brownlee-Robbscreek-Whisk complex, 8 to 35 percent slopes	22.3	3.6%
5025	Robbscreek-Dobson-Brownlee complex, 25 to 65 percent slopes	281.0	44.9%
5026	Cartwright-Brownlee-Robbscreek complex, 25 to 65 percent slopes	49.1	7.8%
5027	Dobson-Roney complex, 35 to 90 percent slopes	111.2	17.8%
6002	Hillcreek-Hovelton-Hann complex, 25 to 65 percent slopes	0.6	0.1%
6038	Yad-Cranegulch-Duco complex, 4 to 15 percent slopes	8.6	1.4%
6039	Aradaran-Robbscreek-Shafer complex, 4 to 25 percent slopes	147.1	23.5%
6041	Aradaran-Yad complex, 4 to 25 percent slopes	0.2	0.0%
Subtotals for Soil Survey Area		**620.0**	**99.1%**
Totals for Area of Interest		**625.9**	**100.0%**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
525	Robbscreek-Dobson-Brownlee complex, 25 to 65 percent slopes	5.9	0.9%
Subtotals for Soil Survey Area		**5.9**	**0.9%**
Totals for Area of Interest		**625.9**	**100.0%**

Ada County, Idaho

5006—Brownlee-Robbscreek-Whisk complex, 8 to 35 percent slopes

Map Unit Setting

National map unit symbol: 2162k
Elevation: 3,170 to 5,110 feet
Mean annual precipitation: 15 to 19 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 90 to 140 days
Farmland classification: Not prime farmland

Map Unit Composition

Brownlee and similar soils: 45 percent
Robbscreek and similar soils: 20 percent
Whisk and similar soils: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brownlee

Setting

Landform: Hillslopes
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium and/or colluvium over grus

Typical profile

Ap - 0 to 4 inches: loam
A - 4 to 9 inches: loam
Bt1 - 9 to 16 inches: loam
Bt2 - 16 to 21 inches: sandy clay loam
Bt3 - 21 to 27 inches: sandy clay loam
BC - 27 to 45 inches: fine gravelly sandy loam
Cr - 45 to 50 inches: bedrock
R - 50 to 60 inches: bedrock

Properties and qualities

Slope: 8 to 35 percent
Depth to restrictive feature: 40 to 50 inches to paralithic bedrock; 43 to 60 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 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 5.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: R010XY007ID - Loamy 12-16 PZ
Hydric soil rating: No

Description of Robbscreek

Setting

Landform: Hillslopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium derived from granodiorite over granodiorite

Typical profile

A1 - 0 to 2 inches: fine gravelly coarse sandy loam
A2 - 2 to 6 inches: fine gravelly coarse sandy loam
BA - 6 to 13 inches: fine gravelly coarse sandy loam
Bt1 - 13 to 19 inches: fine gravelly sandy clay loam
Bt2 - 19 to 26 inches: fine gravelly sandy clay loam
Bt3 - 26 to 30 inches: fine gravelly sandy clay loam
R - 30 to 40 inches: bedrock

Properties and qualities

Slope: 8 to 35 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 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 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: R010XY008ID - South Slope Granitic 12-16 PZ PUTR2/PSSPS
Hydric soil rating: No

Description of Whisk

Setting

Landform: Hillslopes
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Colluvium and/or residuum weathered from granodiorite over granodiorite

Typical profile

A - 0 to 3 inches: fine gravelly sandy loam
Bw1 - 3 to 11 inches: fine gravelly sandy loam

Bw2 - 11 to 14 inches: fine gravelly sandy loam
R - 14 to 24 inches: bedrock

Properties and qualities

Slope: 8 to 35 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 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: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R010XY008ID - South Slope Granitic 12-16 PZ PUTR2/PSSPS
Hydric soil rating: No

Data Source Information

Soil Survey Area: Ada County, Idaho
Survey Area Data: Version 12, Aug 23, 2024

Soil Survey Area: Boise County Area, Idaho, Western Part
Survey Area Data: Version 12, Aug 22, 2024

Ada County, Idaho

5025—Robbscreek-Dobson-Brownlee complex, 25 to 65 percent slopes

Map Unit Setting

National map unit symbol: 2162p
Elevation: 2,660 to 5,820 feet
Mean annual precipitation: 13 to 20 inches
Mean annual air temperature: 45 to 51 degrees F
Frost-free period: 90 to 150 days
Farmland classification: Not prime farmland

Map Unit Composition

Robbscreek and similar soils: 35 percent
Dobson and similar soils: 30 percent
Brownlee and similar soils: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Robbscreek

Setting

Landform: Hillslopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium derived from granodiorite over granodiorite

Typical profile

A1 - 0 to 2 inches: fine gravelly coarse sandy loam
A2 - 2 to 6 inches: fine gravelly coarse sandy loam
BA - 6 to 13 inches: fine gravelly coarse sandy loam
Bt1 - 13 to 19 inches: fine gravelly sandy clay loam
Bt2 - 19 to 26 inches: fine gravelly sandy clay loam
Bt3 - 26 to 30 inches: fine gravelly sandy clay loam
R - 30 to 40 inches: bedrock

Properties and qualities

Slope: 25 to 65 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 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 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: C
Ecological site: R010XY008ID - South Slope Granitic 12-16 PZ PUTR2/PSSPS
Hydric soil rating: No

Description of Dobson

Setting

Landform: Hillslopes
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Colluvium derived from granodiorite over granodiorite

Typical profile

A - 0 to 2 inches: fine gravelly coarse sandy loam
Bw - 2 to 12 inches: fine gravelly coarse sandy loam
BC - 12 to 14 inches: fine gravelly loamy coarse sand
R - 14 to 24 inches: bedrock

Properties and qualities

Slope: 25 to 65 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 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: Very low (about 1.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: R011XY018ID - South Slope Granitic 8-12 PZ ARTRT/PSSPS
Hydric soil rating: No

Description of Brownlee

Setting

Landform: Hillslopes
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium and/or colluvium over grus

Typical profile

Ap - 0 to 4 inches: loam
A - 4 to 9 inches: loam
Bt1 - 9 to 16 inches: loam
Bt2 - 16 to 21 inches: sandy clay loam
Bt3 - 21 to 27 inches: sandy clay loam
BC - 27 to 45 inches: fine gravelly sandy loam

Cr - 45 to 50 inches: bedrock
R - 50 to 60 inches: bedrock

Properties and qualities

Slope: 25 to 50 percent
Depth to restrictive feature: 40 to 50 inches to paralithic bedrock; 43 to 60 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 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 5.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Ecological site: R010XY007ID - Loamy 12-16 PZ
Hydric soil rating: No

Data Source Information

Soil Survey Area: Ada County, Idaho
Survey Area Data: Version 12, Aug 23, 2024

Soil Survey Area: Boise County Area, Idaho, Western Part
Survey Area Data: Version 12, Aug 22, 2024

Ada County, Idaho

5026—Cartwright-Brownlee-Robbscreek complex, 25 to 65 percent slopes

Map Unit Setting

National map unit symbol: 2162q
Elevation: 2,590 to 5,220 feet
Mean annual precipitation: 14 to 22 inches
Mean annual air temperature: 46 to 48 degrees F
Frost-free period: 90 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Cartwright and similar soils: 35 percent
Brownlee, moist, and similar soils: 30 percent
Robbscreek, moist, and similar soils: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cartwright

Setting

Landform: Hillslopes
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Loamy alluvium

Typical profile

A1 - 0 to 2 inches: loam
A2 - 2 to 8 inches: loam
A3 - 8 to 21 inches: loam
BA - 21 to 33 inches: loam
Bt1 - 33 to 48 inches: loam
Bt2 - 48 to 60 inches: loam

Properties and qualities

Slope: 35 to 65 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 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: High (about 9.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B

Ecological site: R010XY001ID - North Slope Loamy 12-16 PZ FEID-PSSPS
Hydric soil rating: No

Description of Brownlee, Moist

Setting

Landform: Hillslopes
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Loamy alluvium and/or colluvium over grus

Typical profile

A - 0 to 10 inches: loam
Bt - 10 to 31 inches: sandy clay loam
BC - 31 to 46 inches: fine gravelly sandy loam
Cr - 46 to 60 inches: bedrock

Properties and qualities

Slope: 25 to 50 percent
Depth to restrictive feature: 40 to 60 inches to paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 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 5.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Ecological site: R010XY001ID - North Slope Loamy 12-16 PZ FEID-PSSPS
Hydric soil rating: No

Description of Robbscreek, Moist

Setting

Landform: Hillslopes
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Colluvium derived from granodiorite over granodiorite

Typical profile

A - 0 to 10 inches: fine gravelly coarse sandy loam
Bt1 - 10 to 22 inches: fine gravelly sandy clay loam
Bt2 - 22 to 30 inches: fine gravelly sandy clay loam
R - 30 to 40 inches: bedrock

Properties and qualities

Slope: 35 to 65 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock

Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 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 3.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Ecological site: R010XY014ID - North Slope Granitic 12-16 PZ ARTRX/FEID
Hydric soil rating: No

Data Source Information

Soil Survey Area: Ada County, Idaho
Survey Area Data: Version 12, Aug 23, 2024

Soil Survey Area: Boise County Area, Idaho, Western Part
Survey Area Data: Version 12, Aug 22, 2024

Ada County, Idaho

5027—Dobson-Roney complex, 35 to 90 percent slopes

Map Unit Setting

National map unit symbol: 2162r
Elevation: 2,660 to 5,490 feet
Mean annual precipitation: 13 to 17 inches
Mean annual air temperature: 46 to 51 degrees F
Frost-free period: 90 to 150 days
Farmland classification: Not prime farmland

Map Unit Composition

Dobson and similar soils: 50 percent
Roney, dry, and similar soils: 35 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dobson

Setting

Landform: Hillslopes, canyons
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Colluvium derived from granodiorite over granodiorite

Typical profile

A - 0 to 2 inches: fine gravelly coarse sandy loam
Bw - 2 to 12 inches: fine gravelly coarse sandy loam
BC - 12 to 14 inches: fine gravelly loamy coarse sand
R - 14 to 24 inches: bedrock

Properties and qualities

Slope: 35 to 90 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 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: Very low (about 1.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Ecological site: R011XY018ID - South Slope Granitic 8-12 PZ ARTRT/PSSPS
Hydric soil rating: No

Description of Roney, Dry

Setting

Landform: Hillslopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium derived from granodiorite over granodiorite

Typical profile

A1 - 0 to 2 inches: fine gravelly coarse sandy loam
A2 - 2 to 12 inches: fine gravelly coarse sandy loam
AB - 12 to 17 inches: fine gravelly coarse sandy loam
Bw - 17 to 30 inches: fine gravelly coarse sandy loam
R - 30 to 40 inches: bedrock

Properties and qualities

Slope: 35 to 90 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 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: Very low (about 2.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R010XY008ID - South Slope Granitic 12-16 PZ PUTR2/PSSPS
Hydric soil rating: No

Data Source Information

Soil Survey Area: Ada County, Idaho
Survey Area Data: Version 12, Aug 23, 2024

Soil Survey Area: Boise County Area, Idaho, Western Part
Survey Area Data: Version 12, Aug 22, 2024

Ada County, Idaho

6002—Hillcreek-Hovelton-Hann complex, 25 to 65 percent slopes

Map Unit Setting

National map unit symbol: 21636
Elevation: 2,670 to 5,240 feet
Mean annual precipitation: 14 to 20 inches
Mean annual air temperature: 46 to 48 degrees F
Frost-free period: 90 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Hillcreek and similar soils: 35 percent
Hovelton, moist, and similar soils: 30 percent
Hann and similar soils: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hillcreek

Setting

Landform: Hillslopes
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Weathered volcanic ash and/or colluvium and/or slope alluvium derived from basalt

Typical profile

A1 - 0 to 2 inches: ashy loam
A2 - 2 to 10 inches: ashy loam
AB - 10 to 27 inches: ashy loam
2Bt1 - 27 to 43 inches: clay loam
2Bt2 - 43 to 59 inches: clay loam
2Bt3 - 59 to 66 inches: gravelly clay loam

Properties and qualities

Slope: 35 to 65 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 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: High (about 11.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C

Ecological site: R010XY001ID - North Slope Loamy 12-16 PZ FEID-PSSPS
Hydric soil rating: No

Description of Hovelton, Moist

Setting

Landform: Hillslopes
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Weathered volcanic ash and/or colluvium derived from basalt and/or welded tuff over basalt and/or welded tuff

Typical profile

A - 0 to 12 inches: cobbly ashy loam
Bt - 12 to 22 inches: very cobbly clay loam
R - 22 to 32 inches: bedrock

Properties and qualities

Slope: 35 to 65 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 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: Very low (about 2.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Ecological site: R010XY001ID - North Slope Loamy 12-16 PZ FEID-PSSPS
Hydric soil rating: No

Description of Hann

Setting

Landform: Hillslopes
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Clayey alluvium

Typical profile

A - 0 to 3 inches: silt loam
Bt1 - 3 to 6 inches: silty clay loam
Bt2 - 6 to 13 inches: silty clay
Bt3 - 13 to 25 inches: silty clay
Bt4 - 25 to 44 inches: silty clay loam
Bt5 - 44 to 72 inches: silty clay loam

Properties and qualities

Slope: 25 to 50 percent

Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 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: High (about 11.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Ecological site: R010XY001ID - North Slope Loamy 12-16 PZ FEID-PSSPS
Hydric soil rating: No

Data Source Information

Soil Survey Area: Ada County, Idaho
Survey Area Data: Version 12, Aug 23, 2024

Soil Survey Area: Boise County Area, Idaho, Western Part
Survey Area Data: Version 12, Aug 22, 2024

Ada County, Idaho

6038—Yad-Cranegulch-Duco complex, 4 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2163f
Elevation: 3,090 to 4,120 feet
Mean annual precipitation: 14 to 17 inches
Mean annual air temperature: 47 to 50 degrees F
Frost-free period: 110 to 140 days
Farmland classification: Not prime farmland

Map Unit Composition

Yad and similar soils: 35 percent
Duco and similar soils: 25 percent
Cranegulch and similar soils: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Yad

Setting

Landform: Escarpments
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Clayey alluvium over loamy lacustrine deposits

Typical profile

A - 0 to 2 inches: clay loam
BA - 2 to 6 inches: clay loam
Btss1 - 6 to 14 inches: clay loam
Btss2 - 14 to 25 inches: clay
2Bt1 - 25 to 41 inches: clay loam
2Bt2 - 41 to 52 inches: gravelly sandy clay loam
2Bt3 - 52 to 60 inches: clay loam

Properties and qualities

Slope: 4 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 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: High (about 9.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: D

Ecological site: R010XY006ID - Churning Clay 8-16 PZ ARTRX/ PSSPS
Hydric soil rating: No

Description of Cranegulch

Setting

Landform: Structural benches
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Loamy lacustrine deposits

Typical profile

A1 - 0 to 3 inches: loam
A2 - 3 to 11 inches: loam
Bt1 - 11 to 14 inches: sandy clay loam
Bt2 - 14 to 22 inches: sandy clay
Bt3 - 22 to 33 inches: clay
Bt4 - 33 to 50 inches: sandy clay
Bt5 - 50 to 60 inches: clay loam

Properties and qualities

Slope: 5 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 2 percent
Available water supply, 0 to 60 inches: High (about 9.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R010XY007ID - Loamy 12-16 PZ
Hydric soil rating: No

Description of Duco

Setting

Landform: Structural benches
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Colluvium derived from andesite and/or basalt over basalt and/or andesite

Typical profile

A - 0 to 3 inches: stony loam
Bt - 3 to 15 inches: extremely stony clay loam
R - 15 to 25 inches: bedrock

Properties and qualities

Slope: 4 to 15 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 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: Very low (about 1.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R010XY011ID - South Slope Stony 12-16 PZ ARTRT/PSSPS
Hydric soil rating: No

Data Source Information

Soil Survey Area: Ada County, Idaho
Survey Area Data: Version 12, Aug 23, 2024

Soil Survey Area: Boise County Area, Idaho, Western Part
Survey Area Data: Version 12, Aug 22, 2024

Ada County, Idaho

6039—Aradaran-Robbscreek-Shafer complex, 4 to 25 percent slopes

Map Unit Setting

National map unit symbol: 21674
Elevation: 3,210 to 4,210 feet
Mean annual precipitation: 15 to 17 inches
Mean annual air temperature: 47 to 49 degrees F
Frost-free period: 110 to 130 days
Farmland classification: Not prime farmland

Map Unit Composition

Aradaran and similar soils: 40 percent
Robbscreek and similar soils: 30 percent
Shafer and similar soils: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Aradaran

Setting

Landform: Hillslopes
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Clayey alluvium

Typical profile

A1 - 0 to 3 inches: loam
A2 - 3 to 9 inches: loam
BA - 9 to 14 inches: loam
Bt1 - 14 to 23 inches: clay loam
Bt2 - 23 to 29 inches: clay loam
Bt3 - 29 to 42 inches: clay
Bt4 - 42 to 55 inches: fine gravelly clay loam
Bt5 - 55 to 60 inches: fine gravelly sandy clay loam

Properties and qualities

Slope: 4 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 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: High (about 9.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C
Ecological site: R010XY001ID - North Slope Loamy 12-16 PZ FEID-PSSPS
Hydric soil rating: No

Description of Robbscreek

Setting

Landform: Hillslopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium derived from granodiorite over granodiorite

Typical profile

A1 - 0 to 2 inches: fine gravelly coarse sandy loam
A2 - 2 to 6 inches: fine gravelly coarse sandy loam
BA - 6 to 13 inches: fine gravelly coarse sandy loam
Bt1 - 13 to 19 inches: fine gravelly sandy clay loam
Bt2 - 19 to 26 inches: fine gravelly sandy clay loam
Bt3 - 26 to 30 inches: fine gravelly sandy clay loam
R - 30 to 40 inches: bedrock

Properties and qualities

Slope: 8 to 25 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 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 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: C
Ecological site: R010XY008ID - South Slope Granitic 12-16 PZ PUTR2/PSSPS
Hydric soil rating: No

Description of Shafer

Setting

Landform: Structural benches
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Clayey lacustrine deposits and/or colluvium derived from welded tuff and/or basalt over welded tuff

Typical profile

A - 0 to 1 inches: clay loam
BA - 1 to 7 inches: clay

Btss1 - 7 to 18 inches: clay
Btss2 - 18 to 22 inches: clay loam
Crt - 22 to 25 inches: bedrock
R - 25 to 35 inches: bedrock

Properties and qualities

Slope: 4 to 25 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock; 20 to 38 inches to paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 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 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: D
Ecological site: R010XY006ID - Churning Clay 8-16 PZ ARTRX/PSSPS
Hydric soil rating: No

Data Source Information

Soil Survey Area: Ada County, Idaho
Survey Area Data: Version 12, Aug 23, 2024

Soil Survey Area: Boise County Area, Idaho, Western Part
Survey Area Data: Version 12, Aug 22, 2024

Ada County, Idaho

6041—Aradaran-Yad complex, 4 to 25 percent slopes

Map Unit Setting

National map unit symbol: 2163g
Elevation: 3,040 to 4,200 feet
Mean annual precipitation: 14 to 17 inches
Mean annual air temperature: 47 to 50 degrees F
Frost-free period: 110 to 140 days
Farmland classification: Not prime farmland

Map Unit Composition

Aradaran and similar soils: 45 percent
Yad and similar soils: 35 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Aradaran

Setting

Landform: Hillslopes
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Clayey alluvium

Typical profile

A1 - 0 to 3 inches: loam
A2 - 3 to 9 inches: loam
BA - 9 to 14 inches: loam
Bt1 - 14 to 23 inches: clay loam
Bt2 - 23 to 29 inches: clay loam
Bt3 - 29 to 42 inches: clay
Bt4 - 42 to 55 inches: fine gravelly clay loam
Bt5 - 55 to 60 inches: fine gravelly sandy clay loam

Properties and qualities

Slope: 4 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 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: High (about 9.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C

Ecological site: R010XY001ID - North Slope Loamy 12-16 PZ FEID-PSSPS
Hydric soil rating: No

Description of Yad

Setting

Landform: Escarpments
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Clayey alluvium over loamy lacustrine deposits

Typical profile

A - 0 to 2 inches: clay loam
BA - 2 to 6 inches: clay loam
Btss1 - 6 to 14 inches: clay loam
Btss2 - 14 to 25 inches: clay
2Bt1 - 25 to 41 inches: clay loam
2Bt2 - 41 to 52 inches: gravelly sandy clay loam
2Bt3 - 52 to 60 inches: clay loam

Properties and qualities

Slope: 4 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 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: High (about 9.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: D
Ecological site: R010XY006ID - Churning Clay 8-16 PZ ARTRX/PSSPS
Hydric soil rating: No

Data Source Information

Soil Survey Area: Ada County, Idaho
Survey Area Data: Version 12, Aug 23, 2024

Soil Survey Area: Boise County Area, Idaho, Western Part
Survey Area Data: Version 12, Aug 22, 2024

Boise County Area, Idaho, Western Part

525—Robbscreek-Dobson-Brownlee complex, 25 to 65 percent slopes

Map Unit Setting

National map unit symbol: 2qrm
Elevation: 2,660 to 5,820 feet
Mean annual precipitation: 13 to 20 inches
Mean annual air temperature: 45 to 51 degrees F
Frost-free period: 90 to 150 days
Farmland classification: Not prime farmland

Map Unit Composition

Robbscreek and similar soils: 35 percent
Dobson and similar soils: 30 percent
Brownlee and similar soils: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Robbscreek

Setting

Landform: Hillslopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium derived from granodiorite over granodiorite

Typical profile

A1 - 0 to 2 inches: fine gravelly coarse sandy loam
A2 - 2 to 6 inches: fine gravelly coarse sandy loam
BA - 6 to 13 inches: fine gravelly coarse sandy loam
Bt1 - 13 to 19 inches: fine gravelly sandy clay loam
Bt2 - 19 to 26 inches: fine gravelly sandy clay loam
Bt3 - 26 to 30 inches: fine gravelly sandy clay loam
R - 30 to 40 inches: bedrock

Properties and qualities

Slope: 25 to 65 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 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 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: C
Ecological site: R010XY008ID - South Slope Granitic 12-16 PZ PUTR2/PSSPS
Hydric soil rating: No

Description of Dobson

Setting

Landform: Hillslopes
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Colluvium derived from granodiorite over granodiorite

Typical profile

A - 0 to 2 inches: fine gravelly coarse sandy loam
Bw - 2 to 12 inches: fine gravelly coarse sandy loam
BC - 12 to 14 inches: fine gravelly loamy coarse sand
R - 14 to 24 inches: bedrock

Properties and qualities

Slope: 25 to 65 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 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: Very low (about 1.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: R011XY018ID - South Slope Granitic 8-12 PZ ARTRT/PSSPS
Hydric soil rating: No

Description of Brownlee

Setting

Landform: Hillslopes
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium and/or colluvium over grus

Typical profile

Ap - 0 to 4 inches: loam
A - 4 to 9 inches: loam
Bt1 - 9 to 16 inches: loam
Bt2 - 16 to 21 inches: sandy clay loam
Bt3 - 21 to 27 inches: sandy clay loam
BC - 27 to 45 inches: fine gravelly sandy loam

Cr - 45 to 50 inches: bedrock
R - 50 to 60 inches: bedrock

Properties and qualities

Slope: 25 to 50 percent
Depth to restrictive feature: 40 to 50 inches to paralithic bedrock; 43 to 60 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 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 5.8 inches)

Interpretive groups

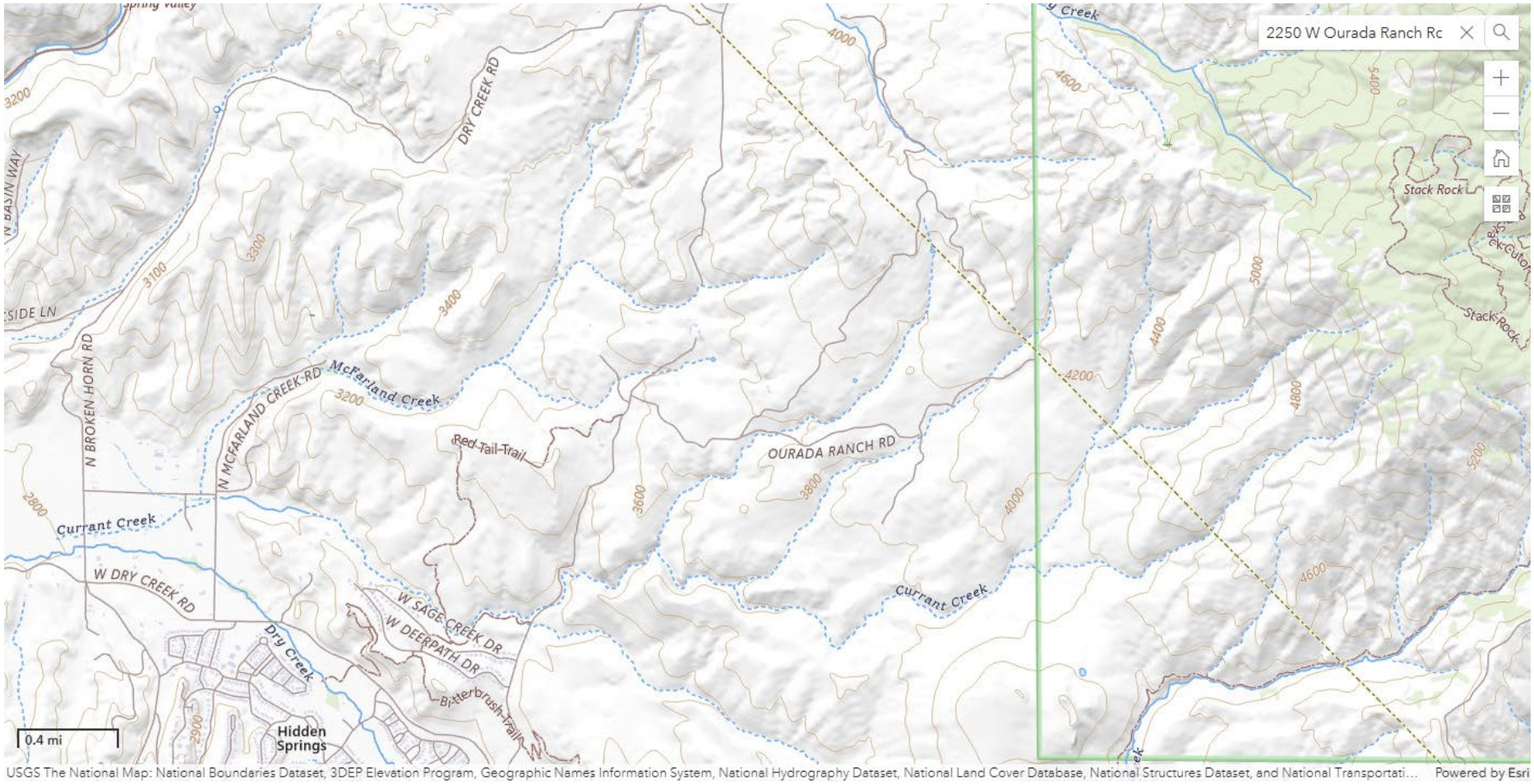
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Ecological site: R010XY007ID - Loamy 12-16 PZ
Hydric soil rating: No

Data Source Information

Soil Survey Area: Ada County, Idaho
Survey Area Data: Version 12, Aug 23, 2024

Soil Survey Area: Boise County Area, Idaho, Western Part
Survey Area Data: Version 12, Aug 22, 2024

Topography Map



IPaC U.S. Fish & Wildlife Service

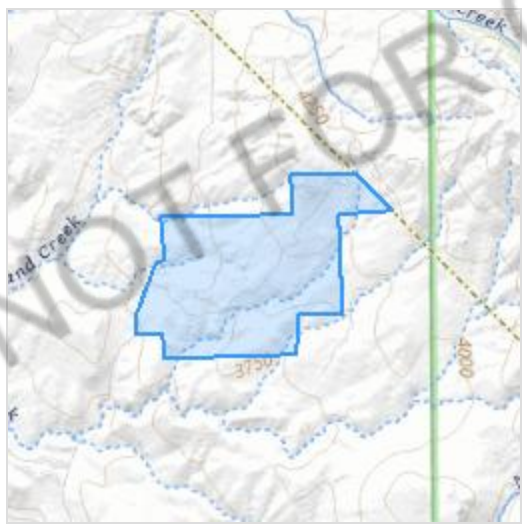
IPaC resource list

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

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

Location

Ada and Boise counties, Idaho



Local office

Idaho Fish And Wildlife Office

(208) 378-5243
(208) 378-5262

1387 South Vinnell Way, Suite 368

Boise, ID 83709-1657

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
North American Wolverine Gulo gulo luscus Wherever found This species only needs to be considered if the following condition applies: • Species may be present based on transient occurrence as it moves through or too suitable habitat. Effects should be considered to species and projects should consult with the Service, however, depending on the project, consultation may not be necessary. No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5123	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Suckley's Cuckoo Bumble Bee Bombus suckleyi No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10885	Proposed Endangered

Flowering Plants

NAME	STATUS
Slickspot Peppergrass Lepidium papilliferum There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4027	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

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

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 avoidance and minimization 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

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental

Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

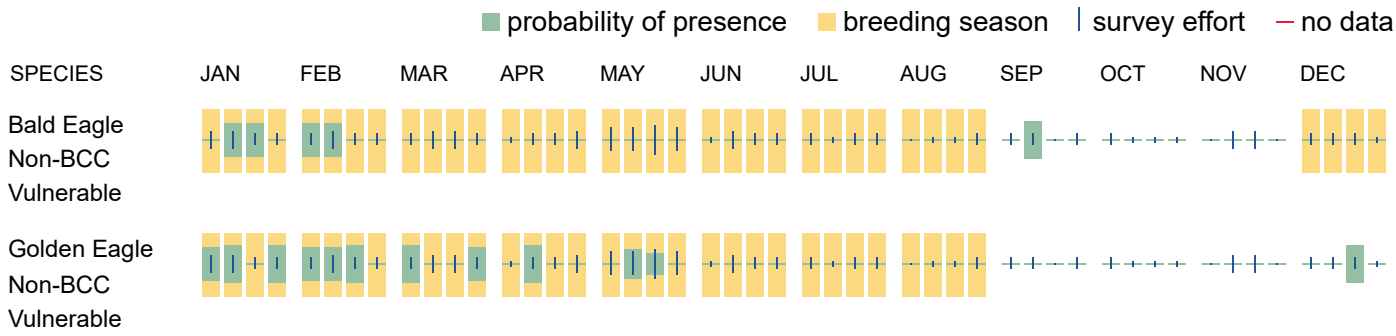
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Bald & Golden Eagles FAQs

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 an eagle (Bald and Golden Eagle Protection Act requirements may apply).

Proper interpretation and use of your eagle report

On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). 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 line or no data line (red horizontal) 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 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 and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are 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 resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), 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.

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:

The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Migratory birds

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

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 avoidance and minimization measures for birds
- 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

Measures for Proactively Minimizing Migratory Bird Impacts

Your IPaC Migratory Bird list showcases birds of concern, including Birds of Conservation Concern (BCC), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the Nationwide avoidance and minimization measures for birds document, and any other project-specific avoidance and minimization measures suggested at the link Measures for avoiding and minimizing impacts to birds for the birds of concern on your list below.

Ensure Your Migratory Bird List is Accurate and Complete

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles document, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black Rosy-finch Leucosticte atrata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9460	Breeds Jun 15 to Aug 31
California Gull Larus californicus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31

Calliope Hummingbird Selasphorus calliope — Breeds May 1 to Aug 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9526

Cassin's Finch Haemorhous cassinii — Breeds May 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9462

Evening Grosbeak Coccothraustes vespertinus — Breeds May 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Lewis's Woodpecker Melanerpes lewis — Breeds Apr 20 to Sep 30

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9408

Long-eared Owl asio otus — Breeds Mar 1 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3631

Northern Harrier Circus hudsonius — Breeds Apr 1 to Sep 15

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/8350

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

Rufous Hummingbird Selasphorus rufus — Breeds Apr 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8002

Sage Thrasher Oreoscoptes montanus — Breeds Apr 15 to Aug 10

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9433

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

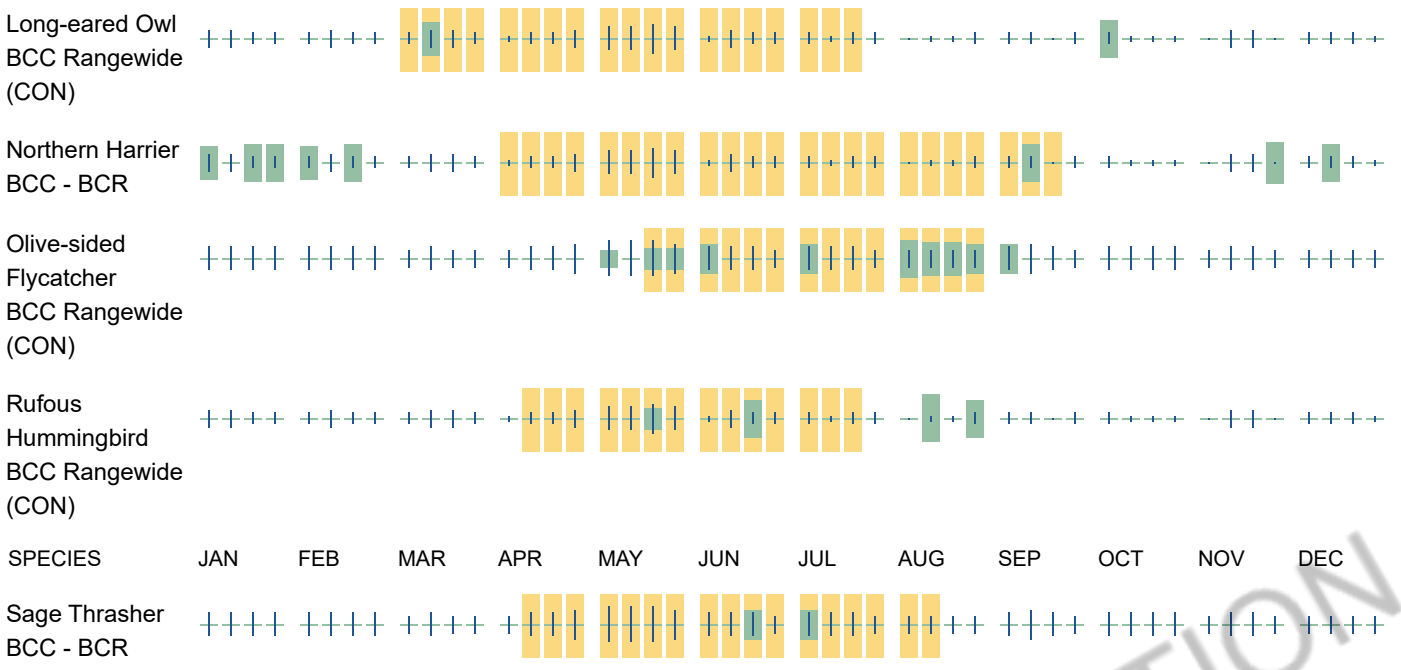
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Migratory Bird FAQs

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

Nationwide Avoidance & Minimization Measures for Birds describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed 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 Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the Bald and Golden Eagle Protection Act and those species marked as “Vulnerable”. See the FAQ “What are the levels of concern for migratory birds?” for more information on the levels of concern covered in the IPaC migratory bird species list.

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) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle (Bald and Golden Eagle Protection 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, and to verify survey effort when no results present, please visit the Rapid Avian Information Locator (RAIL) Tool.

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

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 to 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 resident), you may query your location using the RAIL Tool and view 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 IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), 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 Bald and Golden Eagle Protection 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 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 BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ “Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds”.

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.

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 look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). 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 does not represent all birds present in your project area. 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 and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs
Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:
The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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.

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

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.