



Appendix A

Environmental Screening Report

Final

SOUTH LEWIS COUNTY (TOLEDO) AIRPORT

Airport Layout Plan Environmental Overview

Prepared for
Century West Engineering Corporation

January 2023



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Acronyms and Abbreviations

Airport	South Lewis County (Toledo) Airport
CO	Carbon Monoxide
DPS	Distinct Population Segment
EFH	Essential Fish Habitat
EJSCREEN	Environmental Justice Screening and Mapping Tool
EPA	U.S. Environmental Protection Agency
ESA	Environmental Science Associates
ESU	Evolutionarily Significant Unit
F	degrees Fahrenheit
FAA	Federal Aviation Administration
MBTA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHD	National Hydrography Dataset
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOx	Nitrogen Oxide
O3	Ozone
Pb	Lead
PHS	Priority Habitat Species
PM10 and PM2.5	particulate matter
SO2	Sulfur Dioxide
TMDL	Total Maximum Daily Load
TRI	Toxic Release Inventory
USFWS	U.S. Fish and Wildlife Service
WDFW	Washington Department of Fish and Wildlife

AIRPORT MASTER PLAN UPDATE

Environmental Overview

Building off of previous environmental work completed for the South Lewis County (Toledo) Airport (Airport), Environmental Science Associates (ESA) has prepared this Environmental Overview for the Airport's Master Plan Update. The purpose of this Environmental Overview is to provide a high overview of the environmental conditions of the Airport and identify any known or potential environmental conditions or resources that could be affected by proposed development at the Airport.

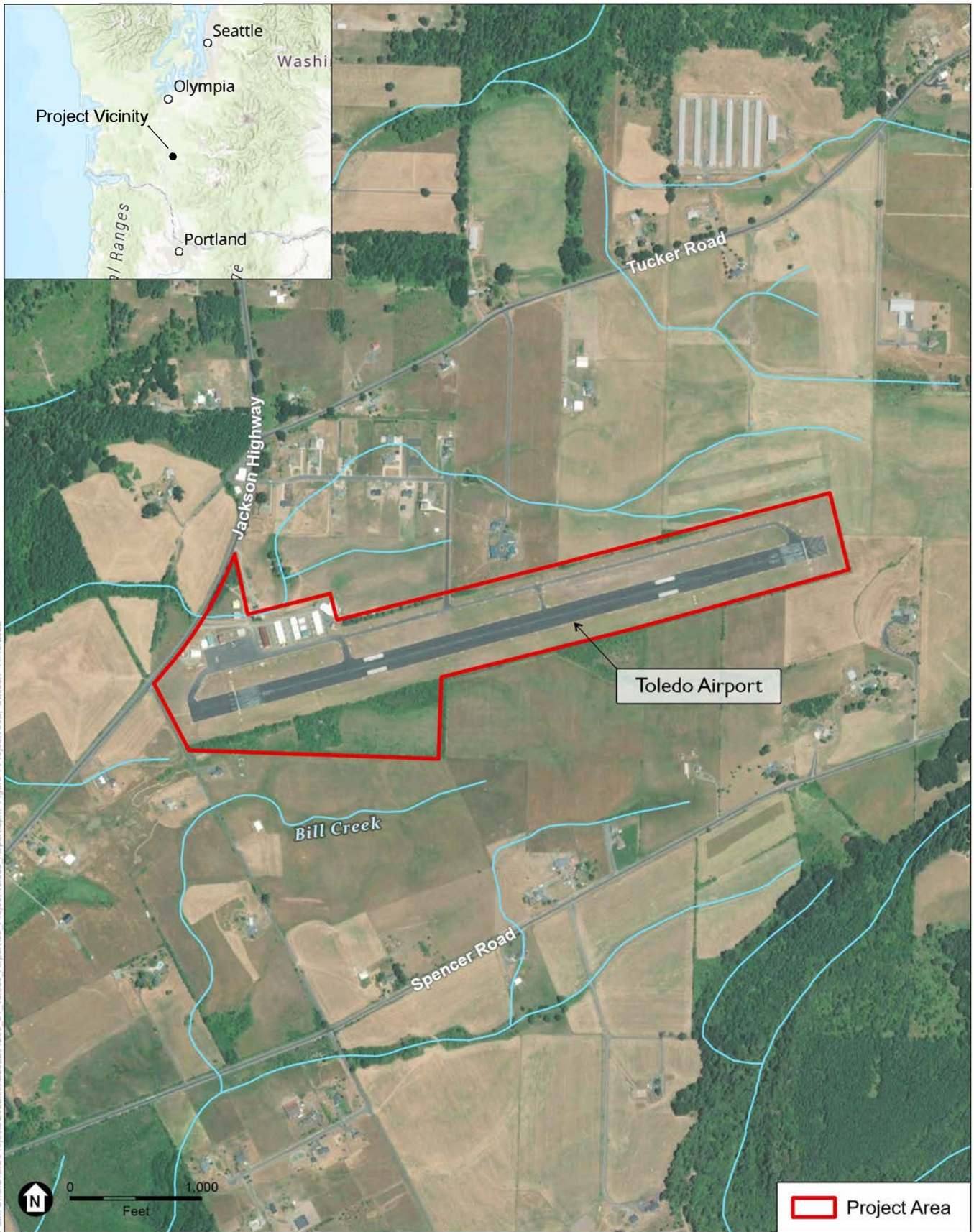
Utilizing available data and information, the contents and organization of this Environmental Overview are based on the National Environmental Policy Act (NEPA) Environmental Impact Categories outlined in Federal Aviation Administration (FAA) Order 1050.1F Environmental Impacts: Policies and Procedures as well as the NEPA implementation instructions for Airport Actions outlined in FAA Order 5050.4B (FAA 2006). ESA performed a desktop analysis for the following environmental impact categories described in the FAA Order 1050.1F:

- Air Quality
- Biological Resources (including fish, plants, and wildlife)
- Department of Transportation Act, Section 4(f)
- Hazardous Materials, Solid Waste, and Pollution Prevention
- Natural Resources and Energy Supply
- Water Resources (including wetlands, floodplains, surface waters, water quality, stormwater, groundwater, and wild and scenic rivers)

LOCATION

The Airport is located north east of the City of Toledo in Lewis County, Washington (Figure 1). The Airport is located at 374 feet above sea level and is bounded by Jackson Highway to the west and agricultural parcels to the north, south and east.

The project area is defined to the Airport property. Depending on the environmental category, the study area may include a large area in order to give context to potential protected resources.



SOURCE: Imagery: Maxar, 2020; Hydrography: WADNR 2021; ESA, 2022

Toledo Airport Layout

Figure 1
Airport Location

AIR QUALITY

Local air quality is generally described by the concentration of various pollutants in the atmosphere. The significance of a pollution concentration is determined by comparing it to state and federal air quality standards. In 1971, the U.S. Environmental Protection Agency (EPA) established standards that specify the maximum permissible short-term and long-term concentrations of various air contaminants. The National Ambient Air Quality Standards (NAAQS) consist of primary and secondary standards for six criteria pollutants: Ozone (O₃), Carbon Monoxide (CO), Sulfur Dioxide (SO₂), Nitrogen Oxide (NO_x), Particulate matter (PM₁₀ and PM_{2.5}), and Lead (Pb).

Based on both federal and state air quality standards, a specific geographic area can be classified as either an “attainment,” “maintenance,” or “non-attainment” area for each pollutant. The threshold for non-attainment designation varies by pollutant. The Airport is within an attainment area in Lewis County, Washington (Ecology 2022a).

According to the EPA’s Environmental Justice Screening and Mapping Tool (EJSCREEN), a tool created to highlight locations that may be candidates for further environmental review, the Airport property falls within a census block where all air quality-related environmental hazard indexes are between the 8th and 37th percentile nationwide. The Airport property scores between the 8th and 46th percentiles in Environmental Justice Indexes (EPA 2022a).

Meteorological Information

The climate in Lewis County included 193 “dry” days (less than 0.10 inches of rain), and 141 “wet” days (more than 0.10 inches of rain). National Oceanic and Atmospheric Administration (NOAA) data from 2011 to 2021 indicates that the annual average temperatures at the Airport have a high of 80 degrees Fahrenheit (F) and a low of 46 degrees F. The lowest temperatures are in December when the average daily low is 35 degrees F and the average daily high is 46 degrees F (NOAA 2022). The highest temperatures are in August when the average daily high is 80 degrees F and the average daily low is 51 degrees F (NOAA 2022). The average annual precipitation is 52 inches, with the wettest month typically being December with an average of 6.9 inches and the driest month being July with an average of 0.7 inches of rain (NOAA 2022).

BIOLOGICAL RESOURCES

Biological resources are valued for their intrinsic aesthetic, economic, and recreational qualities and include fish, wildlife, plants, and their respective habitats. Categories of biological resources evaluated in this document include:

- Land cover and habitat types
- Species and Critical Habitat protected under the Endangered Species Act
- State-listed species and protected habitat
- Migratory Birds

- Bald and golden eagles
- Essential Fish Habitat

Land Cover and Habitat Types

The Airport is located in a rural environment that is surrounded by agricultural uses. Habitat on the airport is limited for wildlife value and consists of mowed herbaceous areas. Additionally, the Airport is actively mowed and managed to discourage wildlife usage to prevent wildlife hazards, although it is not known if the Airport has a Wildlife Hazard Plan.

General species that could occur near the airport include species that have adapted to agricultural uses such as coyote, elk and deer. Typical bird species that occur near the Airport include hawks and falcons, owls, crows and jays, and smaller passerine species (eBird 2022).

Species and Critical Habitat Protected Under the Endangered Species Act

U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) are charged with overseeing the requirements of the *Endangered Species Act*, specifically Section 7, which sets forth requirements for consultation to determine if a proposed action “may affect” a federally endangered or threatened species. If an agency determines that an action “may affect” a federally protected species, then Section 7(a)(2) requires the agency to consult with the agencies to ensure that any action the agency authorizes, funds, or carries out is not likely to jeopardize the continued existence of any federally-listed endangered or threatened species, or result in the destruction or adverse modification of critical habitat. If a species has been listed as a candidate species, Section 7(a)(4) states that each agency must confer with USFWS or NMFS. Agency consultation will be completed under a given project’s environmental determination based on the project and potential impact.

Table 1 lists species protected under the Endangered Species Act that potentially occur in the vicinity of the Airport. **Appendix A** includes the official federal species list from the USFWS, provided by the Information for Planning and Consultation system (USFWS 2022a).

There are recorded occurrences of northern spotted owls within one mile of the Airport (WDFW 2023); however, there is no suitable habitat for northern spotted owls on the Airport. The streaked horned lark is a coastal subspecies only found in southwest Washington and western Oregon, with a range-wide population estimated at 1,170 to 1,610. It is an uncommon breeder on airport grasslands and remnant prairies, dredge spoil islands in the lower Columbia River, and beaches of western Washington and Oregon. Primary concerns are loss and degradation of habitat and human-related disturbance and mortality (example: mowing of grass) at breeding sites. Although there are no recorded sightings of streaked horn larks at the Airport, there may be suitable habitat for this species. There is no designated critical habitat for any terrestrial species within 1 mile of the Airport (USFWS 2022c).

**TABLE 1
FEDERAL OR STATE PROTECTED FISH AND WILDLIFE SPECIES THAT MAY OCCUR IN THE VICINITY OF THE AIRPORT**

Species	Status²	Habitat Requirements	Occurrence within 1-mile radius of Airport
Mammals			
North American wolverine (<i>Gulo gulo</i>)	FC, SC	Remote and inhospitable places at high elevations away from human populations.	There are no recorded sightings within a one mile radius of the Airport and there is no suitable habitat on the Airport.
Birds			
Marbled murrelet (<i>Brachyramphus marmoratus</i>)	FT, SE	Nest in old growth forests within 50 miles of Pacific Coast shoreline.	There are no recorded within a one mile radius of the Airport and there is no suitable habitat on the Airport.
Northern spotted owl (<i>Strix occidentalis caurina</i>)	FT, SE	For nesting (multi-storied, mixed species forest, large overstory trees, moderate-to-high forest canopy closure.	There are records of occurrence within one mile of the Airport, but no suitable habitat is present on the Airport.
Streaked horned lark (<i>Eremophila alpestris strigata</i>)	FT, SE	Large, open spaces with sparsely vegetated areas (less than 80% vegetation cover) of bunched or tufted vegetation that they use as nest cover.	There are no recorded sightings within a 1-mile radius of the Airport.
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	FT, SE	Large blocks of riparian habitats (particularly woodlands containing cottonwoods and willows) with patch sizes of at least 200 acres.	There are no recorded sightings within a 1-mile radius of the Airport and there is no suitable habitat on the Airport.
Fish¹			
Bull trout (<i>Salvelinus confluentus</i>)	FT, SC	Streams with clean gravel substrates and cold water temperatures (less than 9°C/48°F).	There are no streams or creeks on Airport property that support this species.
Chinook salmon (<i>Oncorhynchus tshawytscha</i>) Lower Columbia River ESU	FT	Spawning habitat typically consists of riffles and the tailouts of pools with clean substrates dominated by cobbles. These habitats are located in the mainstem of rivers and large tributaries.	Occurs in the Cowlitz River, 1 mile southeast of the Airport. Stormwater from the Airport flows into Lacamas Creek via Mill Creek which flows into the Cowlitz River
Chum salmon (<i>Oncorhynchus keta</i>) Columbia River ESU	FT	Spawning habitat typically consists of riffles and the tailouts of pools with clean substrates dominated by cobbles, in slower moving water when compared to other salmonids.	Occurs in Lacamas Creek approximately 0.5 miles north and the Cowlitz River, 1 mile southeast of the Airport. Stormwater from the Airport flows into Lacamas Creek via Mill Creek which flows into the Cowlitz River.
Coho Salmon (<i>Oncorhynchus kisutch</i>) Lower Columbia River ESU	FT	Spawning habitat typically consists of riffles and the tailouts of pools with clean substrates dominated by cobbles located in both mainstem and all tributaries	Occurs in Lacamas Creek approximately 0.5 miles north and the Cowlitz River, 1 mile southeast of the Airport. Stormwater from the Airport flows into Lacamas Creek via Mill Creek which flows into the Cowlitz River.

<i>Eulachon</i> (<i>Thaleichthys pacificus</i>) Southern DPS	FT	Anadromous, found in spawning rivers may be turbid or clear.	Occurs in the Cowlitz River, 1 mile southeast of the Airport. Stormwater from the Airport flows into Lacamas Creek via Mill Creek which flows into the Cowlitz River.
<i>Steelhead</i> (<i>Oncorhynchus mykiss</i>) Lower Columbia River DPS	FT	Spawning habitat typically consists of riffles and the tailouts of pools with clean substrates dominated by cobbles in the mainstem of river and most tributaries	Occurs in Lacamas Creek approximately 0.5 miles north and the Cowlitz River, 1 mile southeast of the Airport. Stormwater from the Airport flows into Lacamas Creek via Mill Creek which flows into the Cowlitz River.
Plants			
<i>Golden paintbrush</i> (<i>Castilleja levisecta</i>)	FT	Found in open grasslands at elevations below 100 meters around Puget Sound and south into northern Oregon.	There are no recorded sightings within a 1-mile radius of the Airport and there is no suitable habitat on the Airport.
<i>Kincaid's lupine</i> (<i>Lupinus sulphureus</i> ssp. <i>Kincaidii</i>)	FT	Perennial found west of the Cascade Range in upland prairie remnants between grassland and forest.	There are no recorded sightings within a 1-mile radius of the Airport and there is no suitable habitat on the Airport.
Insects			
<i>Monarch butterfly</i> (<i>Danaus plexippus</i>)	FC	Dependent on their hostplant, milkweed. Occur along riparian habitats in Columbia River Basin.	There are no recorded sightings within a 1-mile radius of the Airport and there is no suitable habitat on the Airport.
<i>Taylor's checkerspot</i> (<i>Euphydryas editha taylori</i>)	FE, SE	Inhabit glacial outwash prairies in the south Puget Sound region and open grassland habitat found on prairies.	There are no recorded sightings within a 1-mile radius of the Airport and there is no suitable habitat on the Airport.

SOURCE: USFWS 2022a

¹ ESU = Evolutionarily Significant Unit.

DPS = Distinct Population Segment

² Endangered Species Act listing status: FC = Federal Candidate; FT = Federally Threatened; FE= Federally Endangered; SC= State Candidate; SE= State Endangered; ST= State Threatened.

The Cowlitz River is located approximately 1.0 mile southeast of the Airport and contains critical habitat for bull trout, Chinook salmon Lower Columbia River ESU, Chum salmon Columbia River ESU, Coho salmon Lower Columbia River ESU, southern DPS eulachon, and Lower Columbia River DPS steelhead (NOAA Fisheries 2022a). Mill Creek flows parallel to the northern boundary of the Airport and receives Airport surface water and stormwater. Mill Creek does not contain protected fish species but flows into Lacamas Creek, a tributary of the Cowlitz River. Lacamas Creek is critical habitat for chum salmon Columbia River ESU, Coho salmon Lower Columbia River ESU, and Lower Columbia River DPS steelhead (NOAA Fisheries 2022a). Bill Creek is a tributary of the Cowlitz River and flows approximately 0.5 mile south of the Airport but does not contain listed species. Surface waters flow from the Airport into Bill Creek and Mill Creek and eventually flow into the Cowlitz River.

State-Listed Species and Protected Habitat

Table 1 lists State-listed that could potentially occur in the vicinity of the Airport. There are recorded occurrences of northern spotted owls (State Endangered) within one mile of the Airport (WDFW 2023); however, there is no suitable habitat for northern spotted owls on the Airport. Although there are no recorded sightings of streaked horn larks (State Endangered) at the Airport, there may be suitable habitat for this species.

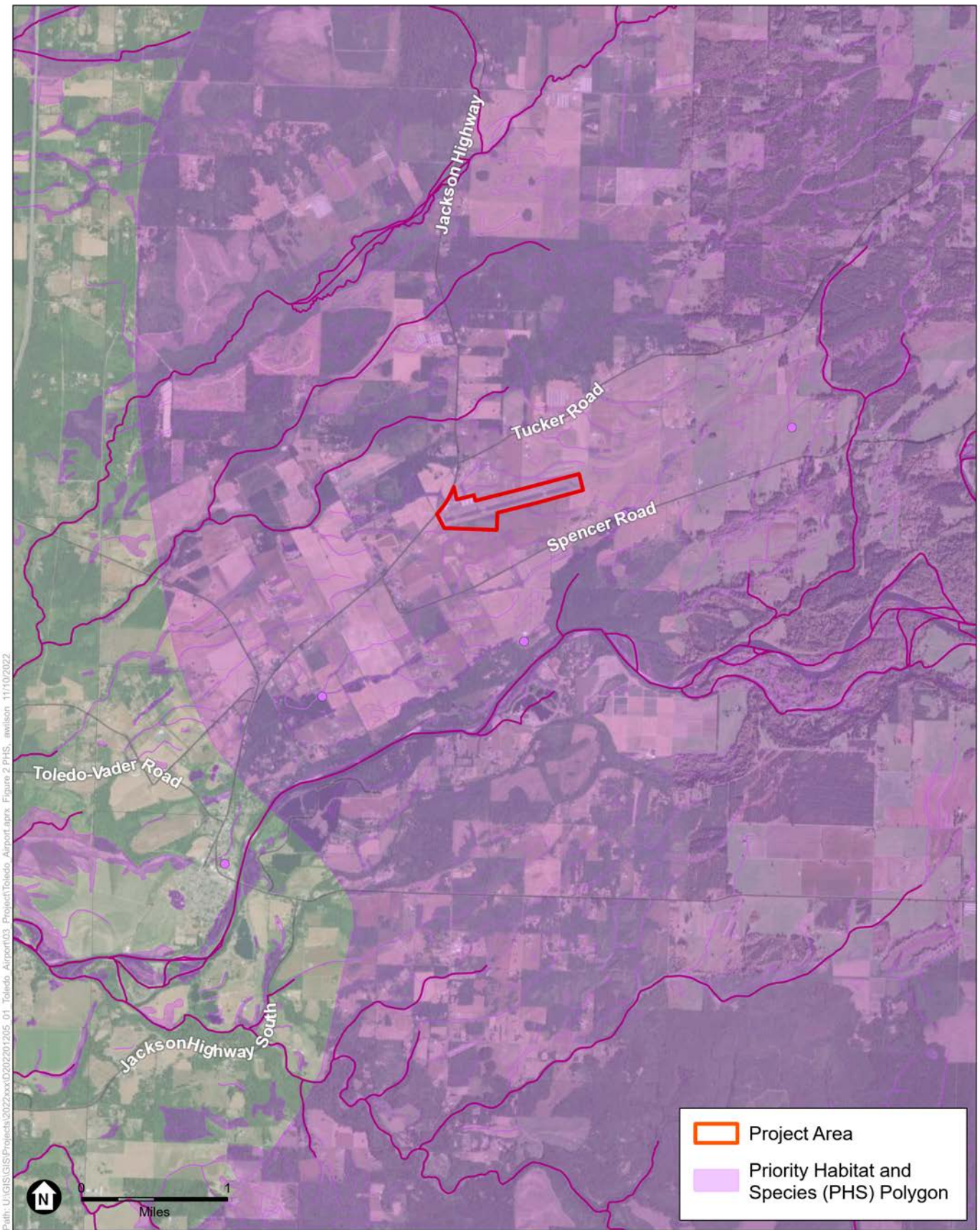
Appendix A contains the Washington Department of Fish and Wildlife's (WDFW) Priority Habitats and Species (PHS) Program report. The PHS is the agency's primary means of transferring fish and wildlife information from our resource experts to local governments, landowners, and others who use it to protect habitat. PHS information is used primarily by cities and counties to implement and update land use plans and development regulations under the Growth Management Act and Shoreline Management Act. Landowners also use PHS as they consider ways to develop and conserve their property.

The PHS Program indicates the Airport is within mapped winter range for the Mount Saint Helens and Mount Rainier herds of Rocky Mountain elk (**Figure 2**). Rocky Mountain elk are classified as game species and are managed by WDFW.

Migratory Birds

The Migratory Bird Treaty Act (MBTA) prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the USFWS (USFWS 2020a). Protected MBTA resources generally include native birds and their active nests and young. Under the requirements of the MBTA, all project proponents are responsible for complying with the appropriate regulations protecting birds when planning and developing a project.

There is only one migratory bird species that has the potential to occur in the vicinity of the Airport which is the rufous hummingbird (USFWS 2022b). This species may be present from April-July during the breeding season. Rufous hummingbirds breed in open areas.



Path: U:\GIS\GIS\Projects\2022\000\202201205_01_Toledo_Airport\03_Project\Toledo_Airport.aprx Figure 2.PHS_aveilson_11/10/2022

SOURCE: Imagery: Maxar, 2021; PHS: WDFW, 2021; ESA, 2022

Toledo Airport Layout

Figure 2
Project Area and Priority Habitat and Species

Bald and Golden Eagles

Bald eagles and golden eagles are protected under the Bald and Golden Eagle Protection Act of 1940. The act's primary purpose is the protection of nesting sites. Bald eagles generally construct nests in large trees near large bodies of water, and golden eagles nest in cliff habitats adjacent to large expanses of flat ground. There are no recorded sightings of either bald or golden eagles within a mile radius of the Airport and suitable breeding habitat does not occur at the Airport.

Essential Fish Habitat

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-297), requires federal agencies to consult with NMFS on activities that may adversely affect Essential Fish Habitat (EFH). The objective of this EFH assessment is to determine whether or not the proposed action(s) "may adversely affect" designated EFH for relevant commercially, federally managed fisheries species within the proposed action area.

The Cowlitz River and its tributaries are considered EFH for Chinook salmon and Coho salmon as part of the managed Pacific Salmon EFH by NMFS (NOAA Fisheries 2022b).

DEPARTMENT OF TRANSPORTATION ACT, SECTION 4(f)

Section 4(f) of the Department of Transportation Act of 1966 provides that the Secretary of Transportation will not approve any program or project that requires the use of any publicly owned land from a historic site, public park, recreation area, or waterfowl and wildlife refuge of national, state, regional, or local importance unless there is no feasible and prudent alternative to the use of such land, and the project includes all possible planning to minimize harm resulting from the use.

There are no Section 4(f) resources on or immediately adjacent to the Airport. The only properties that may be potential protected under Section 4(f) within 1 mile of the Airport include:

- Saint Francis Xavier Cemetery, located approximately 0.5 miles southwest of the Airport.
- St. Mary's Academy (Local Park), located approximately 0.5 miles southwest of the Airport.

HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION

Federal, state, and local laws regulate the use, storage, transport, and disposal of hazardous materials. According to the EPA's EJSCREEN, the closest Superfund¹ site is located

¹ Superfund sites are designated by the EPA as being contaminated by hazardous waste, allowing for governmental management and cleanup of the area.

approximately 12 miles northeast of the Airport property, at Imperial Group Manufacturing (EPA 2022a). The closest brownfield² site is located at Terry Auto Salvage Yard in Kelso, Washington, approximately 15 miles east of the Airport (EPA 2022a).

EJSCREEN also reports seven EPA hazardous waste treatment, storage, and disposal facility, with the nearest location located approximately 3.2 miles to the north west of the Airport.

According to the EPA's Toxic Release Inventory³ (TRI) Search Plus Tool there is one TRI site within a 15 mile radius of the Airport.

There are two below ground storage tank fueling facilities on the Airport, but one of them is deactivated (Lewis County 2013). There is no system on the Airport that treats the runoff from the fueling facilities. There are also other privately owned Fixed Based Operator facilities surrounding the Airport property that have their own fueling facilities.

NATURAL RESOURCES AND ENERGY SUPPLY

Utilities at the Airport include water, sewer, and electric. Water services on the Airport property and surrounded business areas are provided by the City of Toledo Public Works. Sewer is also addressed through City of Toledo Public Works. Electricity is provided by Lewis County Public Utilities District.

WATER RESOURCES

Wetlands

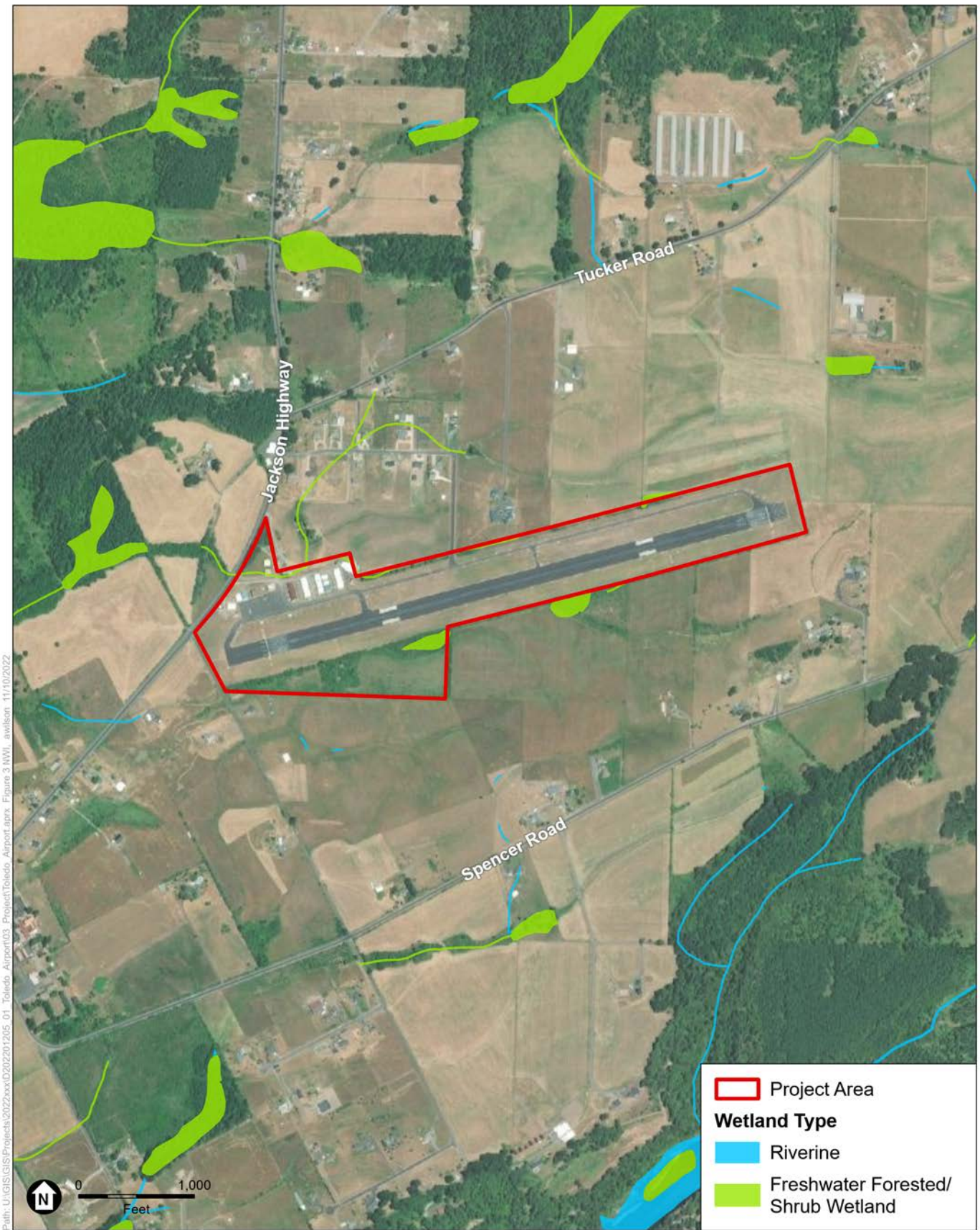
The U.S. Army Corps of Engineers regulates the discharge of dredged and/or fill material into waters of the United States, including adjacent wetlands, under Section 404 of the Clean Water Act. Wetlands are defined in Executive Order 11990, Protection of Wetlands, as *“those areas that are inundated by surface or groundwater with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetation or aquatic life that requires saturated or seasonably saturated soil conditions for growth and reproduction.”*

National Wetlands Inventory mapping within the vicinity of the Airport is shown on **Figure 3**.

Two freshwater forested shrub wetlands are mapped on Airport property boundary. One spans approximately 2.0 acres on the southern boundary of Airport property, and the second spans approximately 2.6 acres of the northern boundary. Hydric soils are present for the wetland along the northern boundary of the Airport (USDA 2022). An approximately 1.23-acre seasonal freshwater emergent wetland is mapped in the southwest corner of the airport property.

² Brownfield sites require cleanup of environmental contaminants prior to use.

³ TRI sites are places where chemicals are released by industrial facilities into the air, water, or land with potential health impacts.



SOURCE: Imagery: Maxar, 2021; National Wetlands Inventory: 2021; ESA, 2022

Toledo Airport Layout

Figure 3
Project Area and National Wetlands Inventory

Floodplains

Executive Order 11988, Floodplain Management, directs federal agencies to take action to reduce the risk of flood loss; minimize the impact of floods on human safety, health, and welfare; and restore and preserve the natural and beneficial values served by the floodplains. Based on a review of Federal Emergency Management Agency maps, there are no areas of 100-year floodplains on Airport property. The Airport property has no mapped floodplains. The nearest floodplain is on the Cowlitz River to the south of the Airport (USGS 2022b).

Surface Waters

The Airport property is in the WRIA 26 Cowlitz River drainage basin defined by the 6-digit Hydrologic Unit Code 170800. All surface waters within the vicinity of the Airport eventually flow into the Cowlitz River through two major creeks (USGS 2022b). Bill Creek receives surface water from the southern portion of the Airport Property which flows downstream into the Cowlitz River. Mill Creek receives runoff from the northern portion of Airport property including stormwater from the Airport runway and flows west into Lacamas Creek which ultimately flows into the Cowlitz River.

Water Quality

Many of the surface waters in the vicinity of the Airport property are contaminated and listed on the 303(d) list (EPA 2022c). Contaminated surface waters in the vicinity of the Airport include:

- Cowlitz River

A Total Maximum Daily Load TMDL describes the maximum amount of a pollutant allowed in a water body and serves as the starting point or planning tool for restoring water quality. Several TMDLs actively apply to the 303(d) impaired waters listed above:

- Cowlitz River in the city of Toledo is considered impaired for polychlorinated biphenyls in fish consumption and drinking water use.

The compromised waters in the vicinity of the Airport property include critical habitat for federally listed bull trout, Chinook salmon, chum salmon, Coho salmon, and steelhead populations.

Stormwater

The Airport currently holds an National Pollutant Discharge Elimination System 1200-Z Stormwater Discharge General Permit that regulates the stormwater discharge from the Airport property. Stormwater from the Airport is directed away from the runway and surrounding infrastructure via a system of constructed swales that wrap around both sides of the runway.

The runway's storm drainage system is comprised of a series of catch basins located on either edge of the runway pavement approximately 200 feet apart. These catch basins collect the stormwater runoff from the runway and convey the stormwater through a 24-inch storm pipe that runs underneath the runway pavement and drains from south to north. This system discharges the

stormwater to an existing drainage ditch just north of the Airport's access road and conveys the runoff from the Airport's property under Jackson Highway (Lewis County 2013). Runoff from the runway eventually flows north into Mill Creek which is then discharged into Lacamas Creek and finally the Cowlitz River downstream.

Groundwater

There are no sole source aquifers in the vicinity of the Airport (EPA 2022d). The Airport and the city of Toledo are located in both Severe and Moderate Aquifer recharge areas classified by Lewis County (Lewis County 2011). There are no unconsolidated sand and gravel aquifers in the vicinity (USGS 2022a).

National Wild and Scenic Rivers

The nearest designated segment of a Wild and Scenic River is the White Salmon River, a tributary of the Columbia River located over 75 miles to the southeast (National Park Service 2022).

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Appendix A

USFWS Official Species List





United States Department of the Interior



FISH AND WILDLIFE SERVICE
Washington Fish And Wildlife Office
510 Desmond Drive Se, Suite 102
Lacey, WA 98503-1263
Phone: (360) 753-9440 Fax: (360) 753-9405

In Reply Refer To:

November 15, 2022

Project Code: 2023-0015830

Project Name: South Lewis County Toledo Airport Environmental Layout Update

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

To Whom It May Concern:

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

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

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

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

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

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

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

Washington Fish And Wildlife Office

510 Desmond Drive Se, Suite 102

Lacey, WA 98503-1263

(360) 753-9440

Project Summary

Project Code: 2023-0015830
Project Name: South Lewis County Toledo Airport Environmental Layout Update
Project Type: Airport - Maintenance/Modification
Project Description: Environmental Update for Toledo Airport
Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@46.471618199999995,-122.80885561958189,14z>



Counties: Lewis County, Washington

Endangered Species Act Species

There is a total of 9 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

Mammals

NAME	STATUS
North American Wolverine <i>Gulo gulo luscus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5123	Proposed Threatened

Birds

NAME	STATUS
Marbled Murrelet <i>Brachyramphus marmoratus</i> Population: U.S.A. (CA, OR, WA) There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4467	Threatened
Streaked Horned Lark <i>Eremophila alpestris strigata</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7268	Threatened
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Fishes

NAME	STATUS
Bull Trout <i>Salvelinus confluentus</i> Population: U.S.A., conterminous, lower 48 states There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8212	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate
Taylor's (=whulge) Checkerspot <i>Euphydryas editha taylori</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5907	Endangered

Flowering Plants

NAME	STATUS
Golden Paintbrush <i>Castilleja levisecta</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7706	Threatened
Kincaid's Lupine <i>Lupinus sulphureus ssp. kincaidii</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3747	Threatened

Critical habitats

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

IPaC User Contact Information

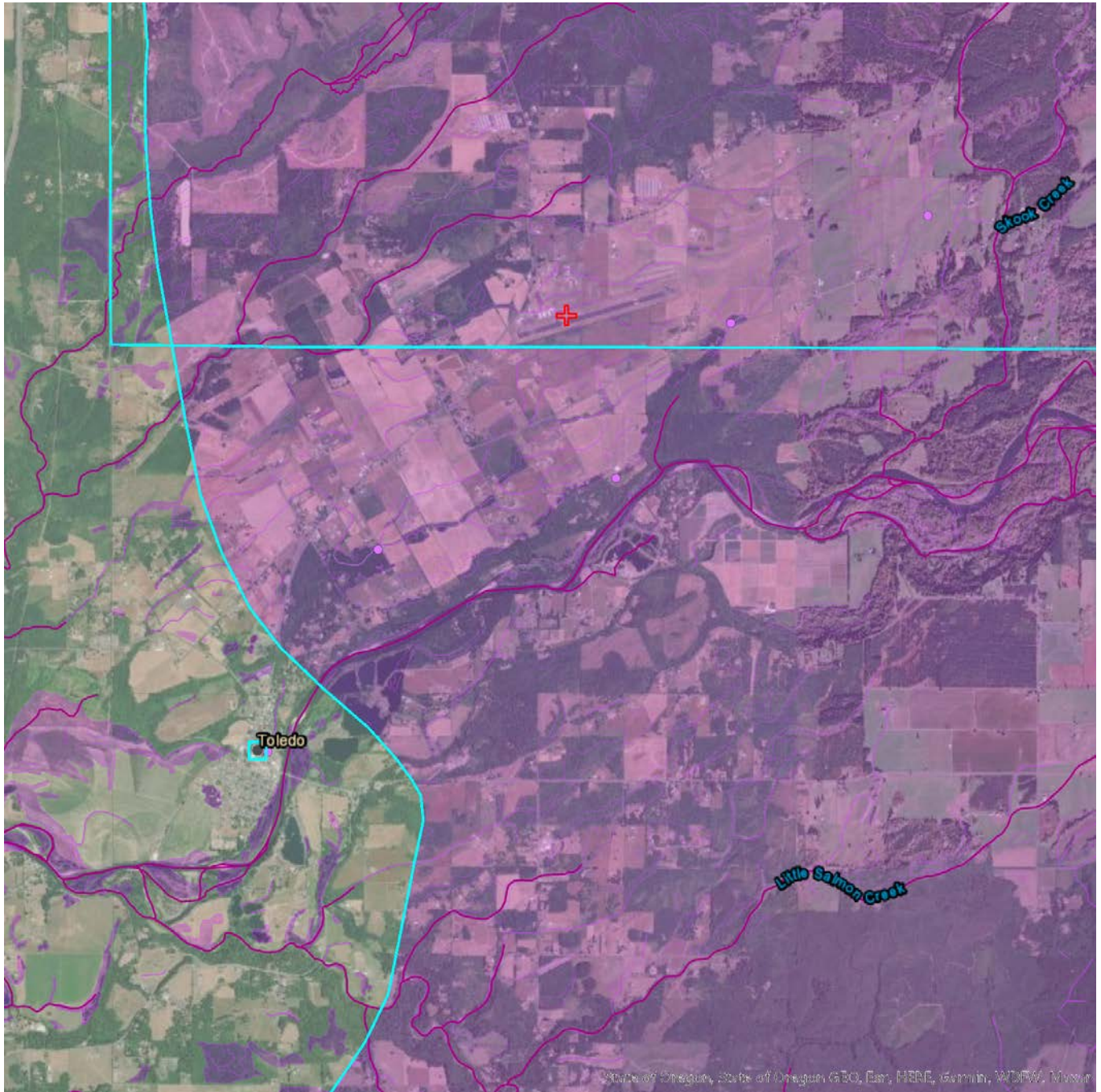
Agency: Federal Aviation Administration
Name: Chris Beck
Address: 5309 Shilshole Avenue NW
Address Line 2: Suite 200
City: Seattle
State: WA
Zip: 98107
Email: cbeck@esassoc.com
Phone: 5303914585

Lead Agency Contact Information

Lead Agency: Federal Aviation Administration



Priority Habitats and Species on the Web



Buffer radius: 1 Miles

Report Date: 01/11/2023

PHS Species/Habitats Overview:

Occurrence Name	Federal Status	State Status	Sensitive Location
Rocky Mountain elk	N/A	N/A	No
Northern Spotted Owl	Threatened	Endangered	Yes

PHS Species/Habitats Details:

Rocky Mountain elk	
Scientific Name	<i>Cervus elaphus nelsoni</i>
Priority Area	Regular Concentration
Accuracy	General locality
Notes	ROCKY MOUNTAIN AND ROOSEVELT ELK WINTER RANGE. MOUNT ST HELENS AND MOUNTRAINIER HERDS.
Source Record	918522
Source Dataset	PHSREGION
Source Name	BENDER, LOU WDFW REG5
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS LISTED OCCURRENCE
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
ManagementRecommendations	http://wdfw.wa.gov/publications/pub.php?id=00614
Geometry Type	Polygons

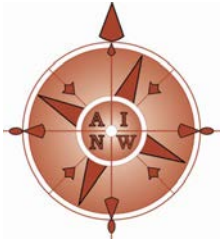
Northern Spotted Owl	
Scientific Name	<i>Strix occidentalis</i>
Notes	This polygon mask represents one or more records of the above species or habitat occurrence. Contact PHS Data Release (360-902-2543) for obtaining information about masked sensitive species and habitats.
Federal Status	Threatened
State Status	Endangered
PHS Listing Status	PHS Listed Occurrence
Sensitive	Y
SGCN	Y
Display Resolution	TOWNSHIP
ManagementRecommendations	http://wdfw.wa.gov/publications/pub.php?id=00026

DISCLAIMER. This report includes information that the Washington Department of Fish and Wildlife (WDFW) maintains in a central computer database. It is not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife. This information only documents the location of fish and wildlife resources to the best of our knowledge. It is not a complete inventory and it is important to note that fish and wildlife resources may occur in areas not currently known to WDFW biologists, or in areas for which comprehensive surveys have not been conducted. Site specific surveys are frequently necessary to rule out the presence of priority resources. Locations of fish and wildlife resources are subject to variation caused by disturbance, changes in season and weather, and other factors. WDFW does not recommend using reports more than six months old.



Appendix B

Cultural Resources Review



Archaeological Investigations Northwest, Inc.

3510 N.E. 122nd Ave. • Portland, Oregon 97230
Phone (503) 761-6605 • Fax (503) 761-6620

Vancouver Phone (360) 696-7473
E-mail: ainw@ainw.com
Web: www.ainw.com

MEMO

Date: January 6, 2023

To: Samantha Peterson, Aviation Planner/Project Manager, Century West Engineering

From: Khrystyne Tschinkel, Ph.D., R.P.A., Supervising Archaeologist
Tara Seaver, M.S., Architectural Historian
Jason A. Cowan, M.A., R.P.A., Senior Archaeologist

Re: South Lewis County Airport
Ed Carlson Memorial Field, Lewis County, Washington
Cultural Resources Review
AINW Report No. 4932

INTRODUCTION

Lewis County intends to update the South Lewis County Airport Layout Plan. Century West has been retained by Lewis County to accomplish this work. The South Lewis County Airport, also known as Ed Carlson Memorial Field, is in Sections 33 and 34, Township 12 North, Range 1 West, Willamette Meridian, Lewis County, Washington (Figures 1 and 2). Century West has requested Archaeological Investigations Northwest, Inc. (AINW), conduct a cultural resource background review of the 96.9-acre airport (study area) to provide information and recommendations that can be incorporated into the Airport Layout Plan.

Most of the study area has been previously surveyed for archaeological resources. Two archaeological sites, 45LE248 and 45LE593 (Cowlitz Farm), are within the study area. The airport became operational in 1940, and two structures within the study area are more than 50 years old (45LE593) (Kanaby 2007; Tingwall et al. 2008).

If individual projects are proposed in association with the Airport Layout Plan, then compliance-level cultural resource investigations are recommended. This includes conducting archaeological surveys of areas that have not been previously surveyed where ground disturbance is proposed, documenting historic resources (i.e., buildings or structures more than 50 years old) on one or more Washington State historic property inventory forms prior to changes to these built resources, and determining cultural resource eligibility for listing in the National Register of Historic Places (NRHP) in consultation with the Federal Aviation Administration and the Washington State Department of Archaeological and Historic Preservation (DAHP).

BACKGROUND REVIEW

AINW reviewed records available at DAHP as well as materials in the AINW library to create a profile of the previously conducted cultural resource surveys near the South Lewis County Airport and to determine the specific locations, types, and significance of resources previously identified near or at the airport. Historical maps of the area, General Land Office (GLO) maps from the Bureau of Land Management, local Lewis County historic resource inventories, aerial photography, and primary historical sources were also examined. The Washington Information System for Architectural and Archaeological Records Data (WISAARD) predictive model depicts the study area as having a very high probability of archaeological resources.

Historic-Period Maps and Documents

A truly pervasive Euroamerican physical presence wasn't established in the Pacific Northwest until 1825 when the Hudson's Bay Company (HBC) constructed Fort Vancouver approximately 108 kilometers (km) (67 miles [mi]) south of the study area. During the peak of Fort Vancouver operations in 1839, HBC established the Cowlitz Farm (Fort Cowlitz) immediately southeast of the study area. The farm was operated by the British Puget Sound Agricultural Company (PSAC), a subsidiary of the HBC, to provide local agricultural products to Fort Vancouver and other HBC outposts in the region. An 1853 GLO survey shows Sections 27, 26, 25, 33, 34, 35, and 36 in Township 12 North, Range 1 West as claimed by the PSAC under the treaty of 1846; however, the sections themselves are not plotted and no other details are drawn on the map (GLO 1853). The PSAC claim extends south into multiple Sections in Township 11 North, Range 1 West, on the northern border of the Cowlitz River (GLO 1854). Also in 1839, a Catholic mission (St. Francis Mission) was established on the Cowlitz Prairie located adjacent to the Cowlitz Farm (Vaughan 1986:76). The St. Francis Mission claim is depicted in Sections 32 and 33 in Township 12 North, Range 1 West, extending further south into Township 11 North, Range 1 West. The mission is located immediately west of the study area (GLO 1853, 1854, 1863, 1871).

As the HBC and the affiliated PSAC continued to own lands, this meant the territory was jointly controlled by Britain and the United States. The United States encouraged Euroamerican settlers to occupy these lands to strengthen their claim over Britain's (Finken and LeWarne 1988). The Euroamericans squatting within these lands became upset when the GLO refused to survey the land. Without the survey, those living on the land were prevented from getting the land title. Cowlitz Farms eventually closed, and the land was claimed by the United States (though the Cowlitz tribe never relinquished their land by signing a treaty); Cowlitz land became open for public sale, and Euroamerican claims within the HBC and PSAC territory were settled (Galbraith 1957). Land claims within the study area coinciding with the Cowlitz Farms closure are as follows:

- In 1875 Izabelle Bouchard, heir of John B. Bouchard, was granted 623.63 acres in Section 34 of Township 12 North, Range 1 West, which includes a portion of the study area, under the authority of the Oregon Donation Act of 1850 (Bureau of Land Management [BLM] 1875a). Bouchard's claim is also plotted on an 1863 cadastral survey (GLO 1863).

- In 1875 Nathan Howe was granted 163.83 acres in Section 33 in Township 12 North, Range 1 West, which includes a portion of the study area, under the authority of the Land Act of 1820 (BLM 1875b). Howe's claim is also plotted on an 1871 cadastral survey (GLO 1871).
- In 1876 Eugene Finch was granted 160.13 acres in Section 33 of Township 12 North, Range 1 West, which includes a portion of the study area, under the authority of the Oregon Donation Act of 1850 (BLM 1876). Finch's claim is also plotted on an 1863 cadastral survey (GLO 1863).
- In 1894 the Northern Pacific Railroad Company was granted 38,463.44 acres in Lewis County, Washington, which included a portion of the study area, under the authority of the Pacific Railway Grant of 1864 (BLM 1894).

The South Lewis County Airport, originally known as the Toledo-Winlock Airport, began as an aviation club in 1940 (Metcalf and Fife 2022; Morgan 2014). In 1942, three months after the United States entered World War II, the Toledo-Winlock Airport was officially designated as an emergency airport by the U.S. Government (Morgan 2014). In 2001 ownership of the airport was transferred to Lewis County. In 2002 the airport was renamed to Ed Carlson Memorial Field-South Lewis County Airport (Metcalf and Fife 2022). From 1940 to today, the South Lewis County Airport has remained a single-runway airport (Morgan 2014; U.S. Geological Survey [USGS] 1953, 1984, 2020).

Previous Cultural Resource Studies

A review of records available in WISAARD shows that two cultural resource surveys have been conducted in the study area (Brownell and Blake 2016; Tingwall et al. 2008) and two archaeological sites have been previously recorded in the study area (McClure 1983; Tingwall et al. 2008). An additional three surveys and one archaeological site are within 1.6 km (1.0 mi) of the study area (Amell 2018; de Vry and Amell 2019; Gilbert 2000). The sites and projects most germane to the current project are discussed below.

Cultural Surveys

Five cultural resource surveys have been done within 1.6 km (1.0 mi) of the study area. Three of these archaeological surveys encountered no archaeological resources (Amell 2018; de Vry and Amell 2019; Gilbert 2000). The two other previously conducted archaeological surveys overlap with the study area (Brownell and Blake 2016; Tingwall et al. 2008).

- A cultural survey of 25 acres along the entire northern border of the length landing strip and its northwestern corner consisted of a pedestrian survey and 16 subsurface shovel tests. Shovel tests were dug to an average depth of 45 centimeters (cm) (20 inches [in]) below the ground surface. No archaeological resources were encountered (Brownell and Blake 2016).
- A cultural survey of 23.8 acres, covering almost the entire airport, consisted of a pedestrian survey and 26 auger probes (Tingwall et al. 2008). Auger probes were dug to an average depth of 60 to 90 cm (24 to 35 in). No archaeological resources were encountered during subsurface testing. Tingwall et al. (2008) identified historical surface features (45LE593) within the study area related to the airport.

Archaeological Resources

Two archaeological resources are within the study area, and another is within 1.6 km (1.0 mi) of the study area.

- **Site 45LE593** is within the boundaries of the modern-day airport and is directly related to the airport (Figure 2). The site consists of 1940s-era runway lights on both the northern (14 lights) and southern (15 lights) sides of the existing runway and a historic log skid used during the same time period for grading (Kanaby 2007). The remaining runway lights are in poor condition and do not provide any additional information pertinent to the understanding of the layout and development of World War II-era airports (Tingwall et al. 2008). No other archaeological resources were encountered during subsurface testing. The site is not eligible for the NRHP (Kanaby 2007; Tingwall et al. 2008).
- **Site 45LE248** overlaps the southeast boundary of the airport property (Figure 2). This site is the general location of the aforementioned Cowlitz Farm. The site consists of an agricultural settlement related to the Cowlitz Farm and a lithic scatter. No formal archaeological investigation was conducted; the site was documented by McClure in 1983 after conversations with the landowner at the time, Anita Lloyd. The landowner had removed and kept a large amount of cultural material during the construction of a house foundation. Material in Lloyd's collection included blue and brown transferware, a clay pipe, bowls, stems, square nails, glass trade beads, an axe head, a thimble, and several forks with bone handles. Some of the ceramics were Copeland and Garrett earthenware manufactured between 1933 and 1847. While on site McClure noted the presence of pre-contact lithic debitage (McClure 1983).
- **Site 45LE25** is documented in WISAARD as being located 1.4 km (0.9 mi) southeast of the study area. However, no site forms, maps, or documents associated with this resource location were found. No further information about the site is available.

Built Environment

The current study area contains 18 buildings and one structure (the airport runway) (Figure 2). One circa 1951 building and the circa 1944 runway (Runway 6-24) and its associated taxiways and apron are more than 50 years old (Historic Aerials 2022; Robert 1994; *The News Tribune* 1942; USGS 1953). The other 17 buildings were constructed between 1976 and 2010.

There is one previously recorded historic resource within 0.8 km (0.5 mi) of the study area. The circa 1906 Gray Home is located at 5182 Jackson Highway approximately 0.8 km (0.5 mi) northwest of the study area. However, WISAARD shows that the NRHP eligibility of the resource has not been determined. The closest NRHP-listed resources are several historic-period buildings located at Lewis and Clark State Park in Toledo approximately 4.8 km (3 mi) north of the study area.

SUMMARY AND RECOMMENDATIONS

AINW has completed a cultural resource background records search for the South Lewis County Airport project. The search found that the airport started as a club in 1940 and was officially designated as an airport by the U.S. Government in 1942. Most of the land in the study has been previously surveyed for cultural resources. Two cultural resource surveys have been conducted in the study area (Brownell and Blake 2016; Tingwall et al. 2008) and two archaeological sites have been previously recorded (McClure 1983; Tingwall et al. 2008). The northernmost boundary of Cowlitz Farm (site 45LE248) extends into the southeastern border of the airport (McClure 1983). The other site within the study area (45LE593) consists of historical features directly related to the airport (Kanaby 2007; Tingwall et al. 2008).

AINW recommends that compliance-level cultural resource investigations occur when individual projects are proposed in association with the Airport Layout Plan. This includes conducting archaeological surveys with subsurface testing in areas that have not been previously surveyed where ground disturbance is proposed, documenting buildings and structures more than 50 years old in the study area in WISAARD, and determining eligibility for listing in the NRHP in consultation with the Federal Aviation Administration and DAHP for cultural resources within project footprints. AINW also recommends that in the case of a federal nexus, the South Lewis County Airport be investigated for its potential to meet the minimum eligibility requirements for listing in the NRHP as a historic property to assist in compliance with Section 106 of the National Historic Preservation Act and to meet current reporting standards of DAHP.

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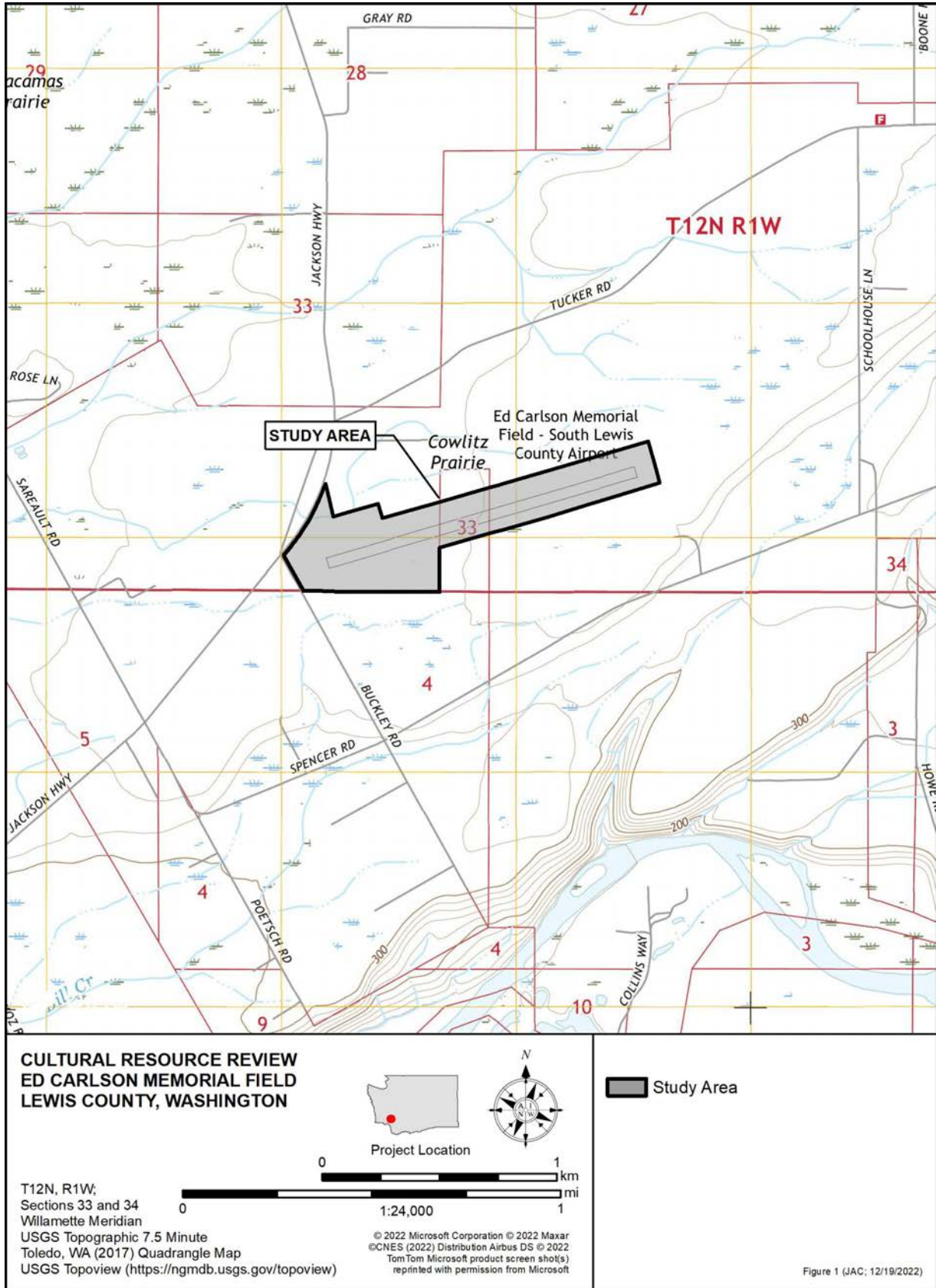


Figure 1. Location of the Ed Carlson Memorial Field study area in Lewis County, Washington.

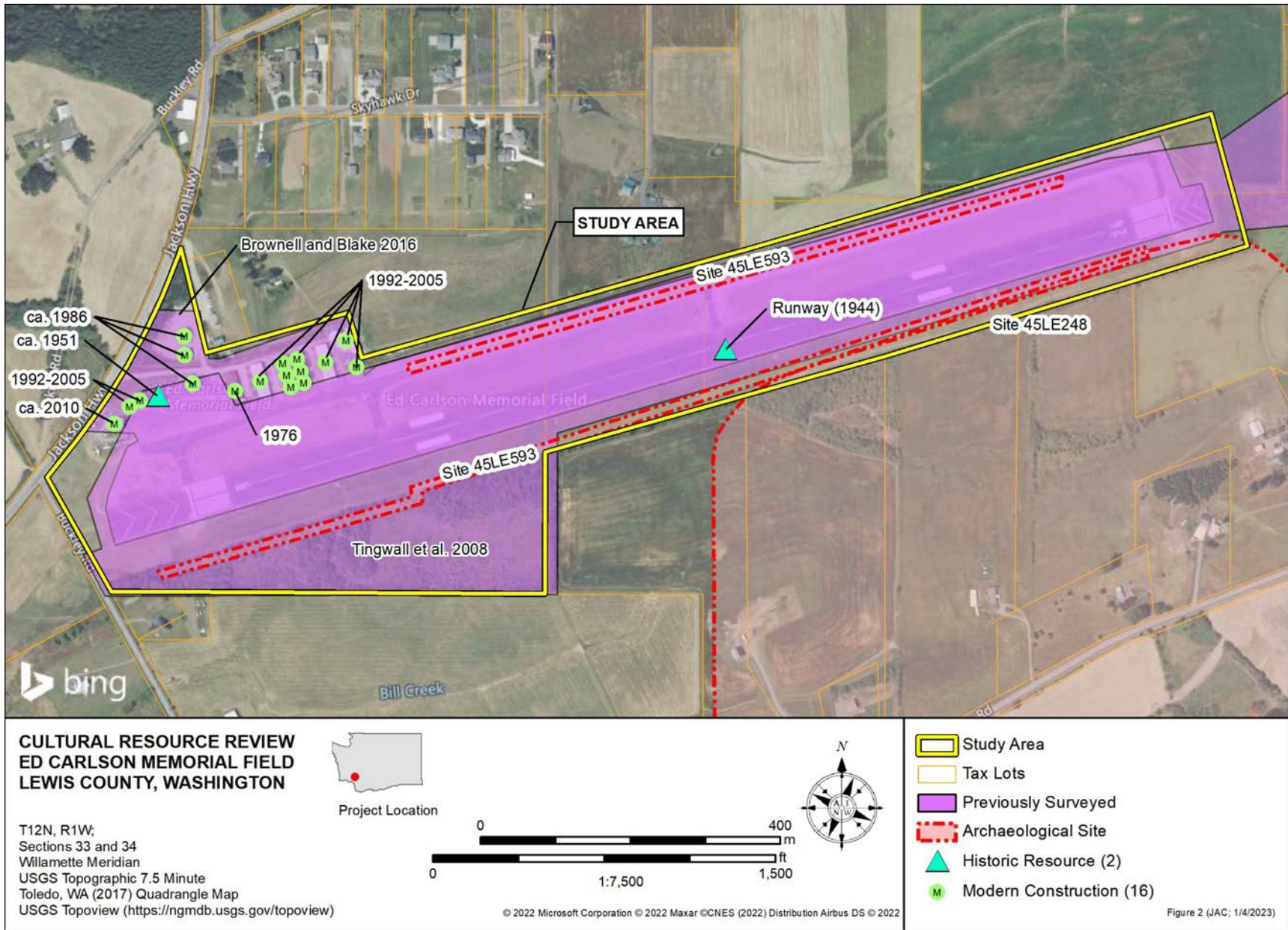


Figure 2. Aerial overview of the Ed Carlson Memorial Field study area showing archaeological sites, historic resources, and previous investigations.